



# **DAWN AC VERSION 8 User and Safety Manual**

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# 1 Company Name and Address



**DAWN** is a registered trademark of **4S Information Systems Ltd.** and represents a new era in software where the adaptability built into the software empowers the customers, with minimum IT professional help, to quickly get the information they require from their system without long delays.

## 4S DAWN Clinical Software

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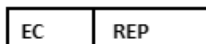
**Website:** <https://www.4s-dawn.com>

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**Patient Guard Europe UG (haftungsbeschränkt)**  
Hauffstr. 41,73765, Neuhausen, Deutschland/  
Germany.



## 2 How To Use the Manual

If a text bubble asks you to 'Click Here' and a red circle is present on the bubble, you will be able to click on the link to take you to the next screen.




For example, clicking on the link on the image below will take you to another screen:

The screenshot displays a patient record for Mary Adams, Female, born 18/01/1962, with phone number 4560508360. The record includes fields for Risk Class (Low), Preferred Clinic (Doms Anticoagulant Clinic), Phone (111-222-4444 - home), and Age (55). Below these fields is a horizontal bar with three segments: blue, green, and red. Under the blue segment, the word 'Diagnosis' is written in blue text. A yellow text bubble with a red circle and the text 'Click here on the Diagnosis text' points to the 'Diagnosis' link. To the right of 'Diagnosis' is the text 'NOT SPECIFIED ...'. Below this are fields for Target Range (2.0 - 3.0), Start Date (05/06/2006 - Indefinite), and Anticoagulant (Warfarin 1, 3 and 5 strength tablets). At the bottom, there is a 'Treatment Plan' section showing '< 1 > of 1 active' and a 'View' button. Below the 'Treatment Plan' section is a 'Risks' section.







## 2.1 Next Screen

We are taken to this next screen

Click here on this tab to return to the previous screen


Patient  Diagnoses  Dalton Square Surgery - Nicol Brenda 

Patient: ADAMS Mary (18/01/1962) # M47904 / 4560508360 > Diagnoses

Diagnosis	Diagnosis date	DiagnosisNotes
 - ANGINA	06/06/2016 	 <div></div>
 - DVT NOT SPECIFIED	25/11/2006 	 <div></div>

### 3 Customer Obligations

This obligations form should be completed and returned to 4S before using the software.

1. The application should be seen as an aid to the healthcare professional. **All dosage and test interval advice issued by the application must be checked by a competent healthcare professional before instructing the patient.**
2. Patients classed as unstable should be segregated and treated separately from stable patients.
3. The customer must have a procedure to ensure **rigorous follow up of non attendees** and ensure that all patients have a next test date.
4. The customer must ensure that only personnel that have been adequately trained in the use of the software in accordance with the *Anticoagulation Safety Manual* should operate the system.
5. The customer must check the front screen tallies daily and act on any concerns
6. Prior to initial use and following any software upgrade or change to the software settings, an appropriate and thorough validation exercise of the software should be completed for your local way of working before 'live' operation. This shall include a test of dose instructions and test intervals covering the full ranges of INRs; and all outputs including letters, emails, links to other systems etc. Records of the results of the validation shall be maintained. The validation should be authorised by the lead clinician/physician. A separate Test System which simulates live operation is highly recommended.
-  **Any configuration or system changes requested by customers who do not have test systems will only be completed after a risk management plan has been completed and written agreement from the customer has been received accepting the risks involved.**
7. It is vitally important that the customer site establishes a **robust method of backing up** and restoring their data, including occasional tests of the backups through restoration. Usually the backup should be done at the end of each working day. If there is a lot of system activity a more frequent back-up procedure should be considered.
8. The customer is expected to operate best practice with regard to keeping their copy of the software up to date. The product is being periodically updated with important safety and operational features. If you are paying software maintenance fees these upgrades are usually free.
9. The customer is expected to keep abreast of key changes and urgent issues in the product and documentation by visiting the webpage <http://www.4s-dawn.com/safety-notice/> weekly. To this end, the customer must inform 4S of changes to lead contact personnel to ensure that communication is not missed.
10. The customer shall review / update the settings (such as target ranges, questionnaires) and operation of the software on any change to best practise or new advice from drug manufacturers or other relevant bodies.

11. The customer should notify 4S immediately if they notice any anomalies within the data or experience anything within the system that could potentially cause a mishap.

12. The customer should notify 4S of any external interaction with third party systems that impact safety operations and rely on information coming to or from your DAWN system (in any format) or if the intended use is going to be changed.

**13. For DOAC (direct oral anticoagulants) Module Users:**

Prior to initial use and following any software upgrade or change to the software settings, an appropriate and thorough validation exercise of the DAWN DOAC software should be completed for your local way of working and against the latest country specific Summary of Product Characteristics (SPC or SmPC) for the DOAC product.

Customers have the ongoing responsibility to ensure that the DAWN DOAC module complies with the latest country specific Summary of Product Characteristics (SPC or SmPC) for the DOAC and that the product is safe to use.

Records of the results of the validation shall be maintained. The validation should be authorised by the lead clinician/physician. A separate Test System which simulates live operation is highly recommended.

**14. Consent - Storing Personal Information**

The customer consents to personal details of relevant healthcare professionals being securely stored by 4S DAWN in order to carry out activities involved in the implementation of the DAWN system and to support you in using our products and services. Further information can be found in our privacy policy at the end of this document.

**Please note, we will not share your details with any third parties.**



**I AGREE TO THE ABOVE OBLIGATIONS BEFORE USING THE DAWN AC SOFTWARE.**

**Signed by Lead Clinician/Physician:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signed by Lead User or Operator:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Organisation Name:** \_\_\_\_\_

**Town:** \_\_\_\_\_

**Country:** \_\_\_\_\_

It is important that you return the signed form to 4S before using the software.

You can:

- fax it to 44 (0)15395 62475
- email a scanned copy to [support@4s-dawn.com](mailto:support@4s-dawn.com)
- post it to 4S Information Systems Ltd, Westmorland House, Elmsfield Park, Holme, Nr Carnforth, Cumbria, LA6 1RJ

## **4S DAWN Clinical Software Privacy Policy**

At 4S DAWN Clinical Software we are committed to protecting and respecting your privacy.

This policy explains when and why we collect personal information, how we use it, the conditions under which we disclose it to others and how we keep it secure.

Any questions regarding this policy can be directed by email to [privacy@4s-dawn.com](mailto:privacy@4s-dawn.com) or in writing to 4S DAWN Clinical Software, Westmorland House, Elmsfield Park, Holme, Nr Carnforth, Cumbria, LA6 1RJ. Contact Name: Syd Stewart, Managing Director

### **Who are we?**

4S DAWN Clinical Software is a division of 4S Information Systems Ltd. The company was founded in 1984 and has been involved in medical applications since start up supplying to over 300 leading healthcare organisations worldwide.

The company is registered in England and Wales, No 3165486, and the registered office is:

4S Information Systems Ltd  
Westmorland House  
Elmsfield Park  
Holme  
Nr Carnforth  
Cumbria  
LA6 1RJ, LA6 1RJ

### **How do we collect information from you?**

We obtain information about you when you contact us via our website, by email or by phone, for example, when you enquire about our products and services, when you register to receive one of our newsletters or when your organisation becomes a customer of 4S DAWN Clinical Software etc.

We occasionally obtain information from publicly available sources such as NHS Trust websites in order to communicate with you.

### **What type of information is collected from you?**

The information we collect might include your name, address, email address, area of speciality, IP address and what 4S DAWN web pages you accessed.

### **How is your information used?**

We may use your information to:

- Assist you with a sales enquiry
- Process an order you have made
- Support you in using our products and services
- Carry out any other obligations arising from any contracts entered into between you and 4S DAWN Clinical Software
- Notify you of changes to our products and services
- Seek your views on the products and services we provide
- Send you communications that maybe of interest. These may include new products and services, company events etc.
- Process a job application

- Retain your services as a supplier

Your information will be held by us for as long as is necessary for the relevant activity or as long as is set out in any contract you hold with 4S DAWN Clinical Software.

### **Who has access to your information?**

We will NOT sell or rent your information to third parties. We will NOT share your information with third parties for marketing purposes.

Your contact information will only be shared with other 4S DAWN Clinical Software customers with your explicit consent.

### **You are in control**

You have a choice whether you wish to receive information from us or not. If you no longer wish to receive information, you can email: [privacy@4s-dawn.com](mailto:privacy@4s-dawn.com) at any time to let us know and we will then update your details on our systems. If you unsubscribe from our newsletter using the link within the newsletter, this will only remove you from the newsletter mailing list and you may continue to receive other communication from us. If you do not wish to receive any communication from us, please specify this using the email address above.

### **How you can access and update your information**

The accuracy of your information is important to us and if you change your email address or you are aware that any of the other information we hold about you is wrong, please email us at [privacy@4s-dawn.com](mailto:privacy@4s-dawn.com) so that we can update our records accordingly.

### **Security Precautions**

No sensitive data such as bank or card details are obtained and stored by us.

Non-sensitive data such as your email address that are transmitted via online and email communications can never be guaranteed to be 100% secure. While we strive to protect your personal information, we cannot guarantee the security of any information that you send to us and do so at your own risk. However, once we receive your information, we do our best to ensure its security within our internal systems.

### **Transferring your information outside Europe**

For those who are located within the EU, your personal data will not be transferred outside of the EU.

If you use our products and services and you are located outside of the EU we will aim to ensure that your privacy rights continue to be protected as outlined in this policy.

### **Automated decision-making**

There is nothing in place to facilitate any type of automated decision-making or profiling about you based on the personal information that we hold.

### **Lodging a complaint**

In the first instance, please contact 4S DAWN Clinical Software at [privacy@4s-dawn.com](mailto:privacy@4s-dawn.com) or 015395 63091 to inform us of your issue so that we are able to rectify it.

After contacting us, if you are still unhappy with the way your data has been handled by 4S DAWN Clinical Software, you have the right to lodge a complaint with the supervisory authority. <https://>

[ico.org.uk/concerns/](https://ico.org.uk/concerns/)

## 4 Safety Manual

### Introduction

This document is intended to highlight potential safety issues that must be understood and addressed before using the DAWN Clinical Framework Anticoagulation module.

It is vital for the on-going safe operation of your software that users of the software are aware of the Safety Instructions as detailed in this manual. Please keep this manual in a safe place for ready referral by your staff.

### What Safety Issues Are There?

The DAWN Clinical Framework web application provides the functionality to manage your anticoagulation patients. The application allows for INR results to be imported via an interface or entered manually and to calculate the next dose and next test date. If you are to import results via an interface, please also read the Interface Safety Manual.

The application should be seen as an aid to the Healthcare Professional. It is a condition of use that all instructions or information issued by the application are checked by a competent healthcare professional before instructing the patient.



#### **Inadequate checking of the Dose and Next Test Date could cause severe injury or death.**

Check that each dose and next test date instruction are correct, clear and safe for each patient.

**Use the software in accordance with the design intent as specified in the User Manual.** E.g. use the Maintenance module for stable patients and the Induction module for initiating patients.

**Segregate and manage patients by risk level** e.g. unstable patients and patients in transition - stopping/starting/changing protocols/interacting medication changes, and previous thromboembolic or bleed events.

Use the appropriate treatment/management protocol and appropriate competent personnel for each patient's indication and risk status.

Check that all non-attendees are followed up and every patient has a next test date appropriate to their risk level.

Appoint a competent healthcare professional to carry out the recommended checks.

Develop written procedures to use with this system to meet your local needs.

These procedures should incorporate not only necessary operational steps but safety steps. The computer system along with these written procedures should form part of a quality management system. Subject this system to external auditing by a suitable quality standards authority.

Train your staff in the use of the computer system.

DAWN Clinical Framework provides a number of checks and warnings to try and prevent errors. These include:

- alerts and warnings after each dosage calculation
- having limits outside which dosing cannot occur
- list views for identifying non-attendees and patients with no next test date
- front screen tallies for displaying some data more prominently

## Which Key Safety Areas Have Been Identified?

The following key safety areas have been identified:

### **Correct Patient Identification:**

It is critical that the users ensure that they have identified the correct patient before taking action such as editing information, dosing, reports or taking any clinical action.

### **Avoiding Transcription or Transposition Errors:**

Careful procedures should be put in place to check that any transcription error or transposition of data cannot occur. The aim should be to eliminate completely any such potential for this type of error.

### **Managing Patients Appropriately:**

The DAWN AC maintenance module is designed for stable patients only. Patients who are not within this category should be segregated and managed differently, i.e., by using the induction module or dosing manually. Some examples of patients who are not within the stable category are as follows:

- Patients with high INRs
- Patients with low INRs (e.g. especially those with mechanical heart valves)
- Patients recently admitted / discharged
- Patients on bridging or preparing for procedures e.g. cardioversion, colonoscopy
- Patients on induction therapy
- Patients with miss days dose instructions
- Patients with boost days dose instructions
- Patients starting and stopping interacting medications
- Patients who have had recent or recurring adverse events

### **Checking Clarity of Dose Instruction to Patient / Healthcare Professional:**

It is essential to ensure that any dose instruction messages printed, emailed or faxed are clear and unambiguous. As well as the format of the instruction itself, users need to check that the anticoagulant instructions are clear, i.e., that the number of tablets or milligrams is displayed, any conditional entries such as any boost or miss days are correct and there is no scope for confusion. If your dosing instructions are configured to display decimals rather than fractions, the potential of misreading a decimal in the dosing instructions should be taken into account.

If emailing dosing instructions, or any messages that rely on correct formatting in order to be understood, choose *email with PDF attachment* instead of email. The format of a simple email relies on the recipient's email client. PDF files display the same way on any computer.

### **Ensuring Patients and Healthcare Professionals receive Emails, SMS messages, and Faxes.**

Always ask recipients to confirm they are receiving your email, fax or SMS messages, and educate them to contact you if they do not receive a message when expected.

It is possible to set up message events with a single delivery method, such as SMS only, or email only. Such messages are only sent to recipients who have SMS, or email, (or whichever method you have chosen) as one of their preferences. If the recipient does not have SMS, or email, or whatever you have chosen as a messaging option, they do not receive the message. Either:

- Limit the use of these options to messages which are optional (such as SMS advance reminders for appointments).
- Set up a corresponding message event for each type of delivery method you use, e.g. Email dosing instruction, SMS dosing instruction etc.. - so all recipients receive at least one version.

Alternatively, configure the message to be sent by "phone" or by the recipient's "written" preference.

### **Losing Track of a Patient:**

It is vital that a patient does not get 'lost' within the system, e.g. treatment plan wrongly closed; no next test appointment made; no follow up on non-attendances; opted out of timed message reminders.

### **Ensuring Operational, Data and System Set-up Integrity:**

It is essential that the system and procedures are critically examined initially and routinely to ensure that the whole system integrity is maintained at all times.

### **Managing High Risk Patients Safely**

From examining mishaps in the NPSA National Reporting and Learning System (NRLS), we noted that many incidents occur when a patient is in a state of change, eg, stopping for a procedure, discharged from hospital, high INR, low INR, very low INR, receiving miss or boost doses, etc.

It is important when dealing with such patient records that you can easily identify these higher risk cases, eg, patients that have been given vitamin K or patients that had a zero dose on their last visit.

When going through processes such as bulk rescheduling, DAWN currently treats all patients in the same way, and so if you choose to reschedule for seven days time, all patients will be moved ahead by seven days. However, this is not always appropriate for the high risk patients.

We recommend that you subset your higher risk patients, possibly though using the risk class facility or using separate high risk clinics, so that these can be dealt with separately.

## Safety Check Lists



Derived from identified safety considerations, your procedures should incorporate and address the following safety points presented in the form of a check list by functional area. **This list is not intended as a complete and exhaustive list.** Each user must determine their own safety procedures and ensure that they are operated correctly and consistently.

The checklists are in two sections as follows, one for the routine users of the system:

- Adding/editing patient's details
- Adding/editing patient treatment plan
- Adding previous treatment history
- Running clinics / monitoring patient results
- Adding the next test date/time
- Adding/editing/deleting user letters/messages
- Adding/editing/deleting patient questionnaires

And secondly, there are separate check lists for system managers to consider:

- Dose/interval settings and Dose Instruction formats and messages (letters, email, faxes)
- Clinic diary settings
- Procedures, letters and events
- Look up information
- List view settings
- Reports
- Custom modules
- Automatic authorisation of INRs
- Questionnaire definitions
- Data and operational integrity

### User Checklists:

#### Safety Check List for Patient Searching and Adding/Editing Patient's Details:

When adding a new patient, the user should perform a thorough search to ensure the patient's details have not been previously entered.

Be aware of name misspellings and transposing numerical identification numbers when searching.

Ensure all patient data (including all data entered via any of the tabs on the patient screen) has been entered and checked for correctness. Attention should be paid to the last name, first name, unit number and date of birth so that the patient can be uniquely identified every time.

Ensure no special characters or symbols are entered in any of the fields, including



notes fields (eg. é, û etc.). Avoid copying and pasting anything from other applications. These may cause issues when sending messages to other systems that can't interpret non standard characters.

Ensure all patient procedures that are entered into the system have been checked for correctness.

Ensure all patient events that are entered into the system have been checked for correctness.

Ensure all patient reminders that are entered into the system have been checked for correctness.

If you are using the maintenance module, ensure the patient is stable and has reached the maintenance dose (if the patient is a maintenance patient).

Ensure the patient has not been incorrectly marked as deceased or inactive.

Ensure the patient's preferences for mailings / alerts / SMS messages are correct.

If your organisation is an administration centre that adds patients then allocates them to a different organisation for monitoring, ensure that you do not leave any patients unallocated. If you are using version 8 +, use the Home Page "Awaiting Referral" tally and corresponding list view to check for anyone who still needs allocating.

### **Safety Check List for Adding/Editing Patient Treatment Plan Details:**

Ensure all treatment plan data (including all data entered via any of the tabs on the treatment plan screen) has been entered and checked for correctness. Attention should be paid to ensure:

- the correct dosing regime has been selected i.e. the instruction of the tablets or pills to be taken by the patient
- the correct primary diagnosis has been entered for the patient
- the correct target INR range has been selected
- the correct start date has been entered
- if short term, the correct treatment duration in weeks has been entered
- the correct maximum % dose change and maximum test interval have been entered if a next test has been created, the correct test date and preferred clinic has been entered and the visit has been correctly scheduled into the appropriate clinic diary

Ensure the treatment plan has the correct status and has not been suspended or stopped in error. The treatment plan should be activated before any dosing can be carried out.

### **Safety Check List for Adding Previous Treatment History:**

You MUST check that the previous treatment history has been entered correctly.

Ensure the correct dosage results and INRs have been entered for this patient.

**Note:** DAWN AC is designed for only one INR/Dose record per day.

Be aware of the consequences of adding incomplete information – missing doses and INRs – entering zero values.

### **Safety Check List for Running Clinics / Monitoring Patient Results:**

Be aware with the Maintenance Module that the computer recommended next dose is based on the last dose recorded for the patient – if that is wrong then the next dose will be wrong or inappropriate.

Be aware with the Maintenance Module that the computer next test interval is based on the stability of the patient – indicated by the length of the last test interval and the INR this time. If the last test interval is wrong then the next interval will be wrong or inappropriate.

Be aware that with the Maintenance Module the inbuilt algorithms do not take account of interacting medications, previous adverse events, previous and planned procedures.

Be aware that DAWN AC can provide visual warnings of the presence of any recorded and current interacting medication, previous adverse events, previous and planned procedures.

Ensure all entered INR results are correct and have been entered against the correct patient with the correct test date.

Check any manual override of the dose and next test date and always add a comment to say why the change was made.

Check any manual override of missing or boost days and always add a comment to say why the change was made.

The patient **MUST** be stable and reached a maintenance dose before using automatic dosing in the Maintenance Module.

Validate each dose and next test date **BEFORE** informing the patient.

Where it is necessary to change a patient's dose, call the patient or speak to them face to face to ensure they have understood the change. You may wish to send an email or printed letter containing the same information, but this should be used to reinforce/ summarise the discussion. It should not be used in place of the conversation.

If patient record books with labels are being used, check the correct dosage instruction report is stuck in the correct patient's record book.

Check the correct dosing information is copied by hand to the correct book or patient report.

Check that all patients (including non attendees) due on a particular day have been dealt with completely. Ensure you assess and take into account the stability of each and every non attendee before deciding on the date to reschedule their appointment for.

Check that the correct information is communicated to the patient by letter, telephone or

any other communication method.

Routinely ensure that each patient has a maximum percentage dose change and maximum interval limits set in the system.

Routinely ensure that all active patients have a future appointment.

Routinely check that all patients that are marked as admitted, active admitted or discharged within the system have been followed up and dealt with.

### **Safety Check List for Adding the Next Test Date/Time:**

Ensure that the patient has a next test date/time and is scheduled into the diary.

Use the list view to ensure that all active patients have a next test date.

### **Safety Check List for Adding/Editing/Deleting Letters/Messages:**

Ensure all new, altered and imported letters / message templates have been checked for correctness and have been thoroughly tested before using them in a live situation.

Check whether any messages such as texts and emails will be sent over insecure, external networks. If so, they should not contain personal, confidential or sensitive information, unless you have obtained the permission of the subject (refer to your information governance guardian for your organisation's guidelines). Neither should messages contain personal, confidential or sensitive information if they are copied to recipients who are not authorised to see it.

Check the correctness of all letters/messages sent out from the system. This should be carried out for all available methods of communication including printed output, SMS, emails and faxes.

To prevent the wrong information being communicated to a patient or healthcare professional, where possible, include the patient identifiers in any printed output, emails and faxes (e.g. dose instructions).

To prevent the wrong dose instruction being communicated to a patient, include the current test date alongside the dose instruction.

Where printing user letters/messages for a group of patients, have a tally of the number of user letters you expect to produce and match that to the number of user letters actually produced, to avoid missing anyone out.

To prevent truncation of the message changing its meaning, check the maximum size of a text or SMS message is not exceeded for any patient or colleague.

Carry out regular end to end testing of timed or other messages on all platforms which will receive them. For example, when a recipient asks to receive messages via text or email, ensure you view a text message or an e-mail as it is received by the patient or healthcare professional. Check that e-mails, SMS text messages or faxes are received and all content is rendered accurately (e.g. half-symbols are displayed correctly, and doses line up with the correct day of week).

Where possible, encourage the use of emails with PDF attachments over regular emails (where the content is put straight into the body of the email). Using PDF's avoids issues with different email clients rendering HTML content in different ways.

If any messages are configured to be sent by a single delivery method, e.g. SMS only, ensure that either the message is optional, or that additional message events exist to send equivalent message by all other delivery methods, e.g. email with PDF attachment only, mail only etc.

Where sending SMS messages using an *SMS via Email* provider, choose the *Plain Text* option in the *External System Connection* settings. If you do not check this box, the email is sent in HTML format and you rely on the *SMS via Email* provider to convert it to plain text. If they do not do this, the message may contain hypertext markup directives that may make it difficult to read.

If messages get sent from DAWN at timed intervals, or when specific events occur, check with recipients that the messages are received at the expected times and that the message content is correct.

Establish an understanding with the intended recipient that they should inform you if they do not receive a message when expected (for example, following a blood test).

Use the following filters on the Status list view to check for patients, next of kin and/or healthcare professionals who are missing the appropriate contact details for their messaging preference:

Filter	Description
Email/Fax/SMS pref but no address/no	Finds patients with email as their messaging preference but no email address, fax as their preference but no fax number, or SMS as their preference but no mobile number.
Next of Kin Email/Fax/SMS pref but no address/no	Finds patients whose next of kin has email as their messaging preference but no email address, fax as their preference but no fax number, or SMS as their preference but no mobile number.
Patient's clinician with missing email/fax/mobile	Finds patients whose GP, consultant or treatment plan team member has email as their messaging preference but no email address, fax as their preference but no fax number, or SMS as their preference but no mobile number.

### **Safety Check List for Adding/Editing/Deleting Patient Questionnaires:**

If you have purchased and are using the questionnaire module:

Ensure all new, altered and imported questionnaire types have been checked for correctness and have been thoroughly tested before using them in a live situation. When completing a patient questionnaire, check all the captured information is correct before saving or printing it.

### **System Manager's Check Lists:**

#### **Safety Check List for Dose/Interval Settings and Dose Instruction Formats/Regimes:**

Ensure all dose/Interval settings and dose instruction formats/regimes have been thoroughly tested before using them in a live situation.

Ensure any old or unused dosing regimes and target ranges are deactivated or removed from the system to avoid them from being selected for a patient in error.

Check all regimes have been set up and checked for correctness and clarity.

Validate the dosage (tablet) instructions on set-up or on changing.

#### **Target Ranges:**

Ensure all target ranges have been thoroughly tested before using them in a live situation.

Check all target ranges have been set up and checked for correctness. For each target range:

Ensure the result status records (e.g. low, in range, high) have been defined with the correct lower and upper limit values.

Ensure all the INR triggers have been correctly defined. Particular attention should be paid to ensure the lower and upper limit values have been correctly entered together with the appropriate action (e.g. warning, calc. prevention).

Ensure all the interval rules have been correctly defined with the correct lower and upper limit values.

Ensure all the miss or boost rules have been correctly defined with the correct lower and upper limit values.

#### **Safety Check List for Clinic Diary Settings:**

Ensure all clinic diary settings have been thoroughly tested before using them in a live situation.

Ensure there are adequate time slots for a typical day's patients list.

Check that any adjustment you have made to the diary for a clinic is correct.

Ensure your days are adjusted or excluded for known staff absences etc.

Ensure that the system settings are set to maintain a diary for the appropriate weeks ahead for your centre.

Ensure that the system settings are set to retain the diary for the appropriate weeks in the past for your centre.

Any deletion of diary slots should be undertaken under strictly controlled conditions and after a backup has been taken.

### **Safety Check List for Defining Procedures, Letters and Events:**

Ensure all definitions for procedures, letters and events have been thoroughly tested before using them in a live situation.

Ensure all procedures have been defined correctly in the Procedure look-up table and have been made available for use by the relevant departments.

Ensure all events have been defined correctly in the Event look-up table and have been made available for use by the relevant departments.

Ensure all letters have been defined correctly (via message templates) and have been set up to be created on the appropriate message events.

### **Safety Check List for Defining Look Up Information:**

Ensure all definitions for look up information have been thoroughly tested before using them in a live situation.

Ensure all information defined in the system look-up tables has been entered and checked for correctness.

### **Safety Check List for List View Settings:**

Ensure all list view settings have been thoroughly tested before using them in a live situation.

Check that all the required list views have been set up correctly and are available for use.

For each list view, check that the correct fields are displayed.

For each list view, check that each filter brings up the correct patients and that no patients meeting the criteria are missing.

For each list view, make sure that users are aware of the correct filters to apply to select the correct subset of patients.

### **Safety Check List for Reports:**

Ensure all new, altered and imported reports have been thoroughly tested before using them in a live situation.

Check that all the required reports have been defined and are available for use.

For each report, check that the correct fields are included.

For each report, check that the correct data is being generated.

### **Safety Check List for Custom Modules:**

If you have purchased and are using any custom modules:

Ensure all new, altered and imported custom modules have been thoroughly tested before using them in a live situation.

### **Safety Check List for Automatic Authorisation of INRs:**

If you have purchased and are using the automatic authorisation module:

Ensure thorough testing has been carried out on your test system before switching on automatic authorisation in your live system.

Perform routine checks to ensure that only the correct INR's are being automatically authorised.

### **Safety Check List for Questionnaire Definitions:**

If you have purchased and are using the questionnaire module:

Ensure all new, altered and imported questionnaire definitions have been set up and checked for correctness. For each questionnaire definition:

Ensure the questionnaire definition has been correctly defined with the correct name and code and has been assigned to the correct department.

Ensure all the options / calculations have been defined correctly.

Ensure all new, altered and imported questionnaire definitions have been thoroughly tested in your test system before using them in a live situation.

### **Safety Check List for Data and Operational Integrity:**

Ensure you have written procedures and physical arrangements for:

Checking all user profiles are properly set and are checked to be working.

Checking that the system settings are appropriate to the environment and method of working and to optimise system performance within your organisation.

Only amending or deleting look-up and normal table settings after a backup has been taken. This will help minimise the potential loss of data should you inadvertently delete the incorrect settings and need to restore your database.

Checking the hardware for possible errors, especially the data disk storage.

Replacing backup media regularly - media only has a set storage life.

Backing up routinely at appropriate intervals and test if you are able to restore the data and programs if required.

Ensuring your backup procedures are working and are appropriate for your database. If your database recovery type is set to full, ensure you are taking transaction log backups at regular intervals.

Ensuring backup media is stored safely in a separate place from the computer system and is readily referenced.

Providing adequate protection from power failures, notebook/laptop battery discharge and interruptions.

Providing adequate protection from staff inadvertently switching power off at the mains.

Checking for computer virus violation.

Documenting and reporting software and operational problems or 'near misses' to DAWN Clinical Software and your own management.

Documenting all changes to system set-up to show they are properly controlled and validated.

Routinely checking that the DAWN Mailer program is operational and working correctly.

Routinely checking that the DAWN Timed Message Service is operational and working correctly.

Routinely checking that the DAWNMessageService is operational and working correctly.

Routinely checking that the DAWN Timer Manager is operational and working correctly.

Ensure your procedures are complete i.e. no sections have been removed, and are kept in a safe and accessible place for ready reference by your users. Make frequent checks that this is the case.

Preventing adding or editing of data in the underlying database by using a third party program or tool. All data access must be done through the DAWN Clinical Framework.

Keeping all the application files complete and together. Do not copy files from previous copies of the application into the current set of files. The application files have a high inter-dependency and require absolute referential integrity.

Encouraging use of the test system to rehearse any infrequently used procedures before live execution.

Using the test system to test out future upgrades before applying the upgrade to the live system.

Ensuring that users do not enter 'real or live' data into your test system and use it operationally.



Ensuring that the system is checked thoroughly after any upgrades / patches are installed on the live system

Ensuring any old, out of date user manuals or e-books are destroyed and the current versions are readily available with no sections missing in full or in part.

Have a contingency plan in place should your computer system hardware or software fail such that you can continue to manage your patients until the computer is operational again.



## 5 Using the System

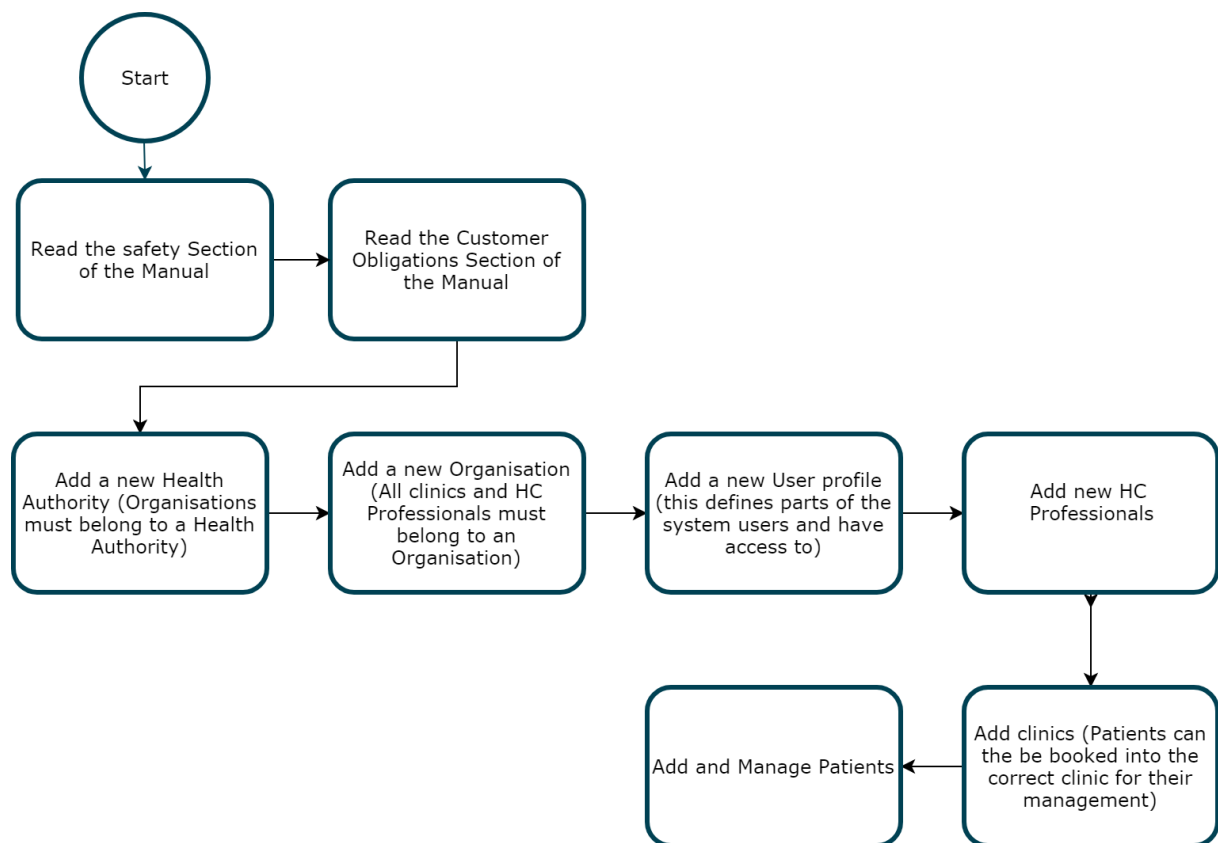
Enter topic text here.

### 5.1 Getting Started Workflow

#### WORKING THROUGH THE SYSTEM

Before starting to dose patients and use the DAWN system in a live situation, we need to set up several sections first. This configures the DAWN system to your specific needs, so that patients can be monitored quickly and effectively, and all the information logged against them is correct, e.g., the patient is booked into the correct clinic at the correct time, and has the correct referring GP and consultant details.

The following flowchart shows the steps typically required to get started with the system:



### 5.2 Logging Into DAWN

When opening up DAWN, you will need to log in with your user account.

Take care to type your user name and password correctly using the correct combination of capital and small letters, ensuring that the Caps Lock is on and off at the correct times. Take care not to confuse the letter O and the number zero or the letter I and the number one.

You are allowed up to five attempts at logging into DAWN before your user account will become locked. If your user account is locked you will no longer be able to use your current password, even if you remember it later on.

If all users are unable to log into the DAWN system, there may be an issue with the DAWN system itself. Please contact your IT department if this occurs.

Login

Username:

Password:

You can unlock your user account by using the password reset option.

Login

Forgot Password

### 5.2.1 Resetting your password by email

Forgot Password

If you forgot your password, please fill in your emailaddress. A new password will be sent to you.

brenda@4s-dawn.com

Click to send the email

### 5.2.2 Reset password message

Your password has been reset. You will receive the password by email.

OK

Click OK to this message

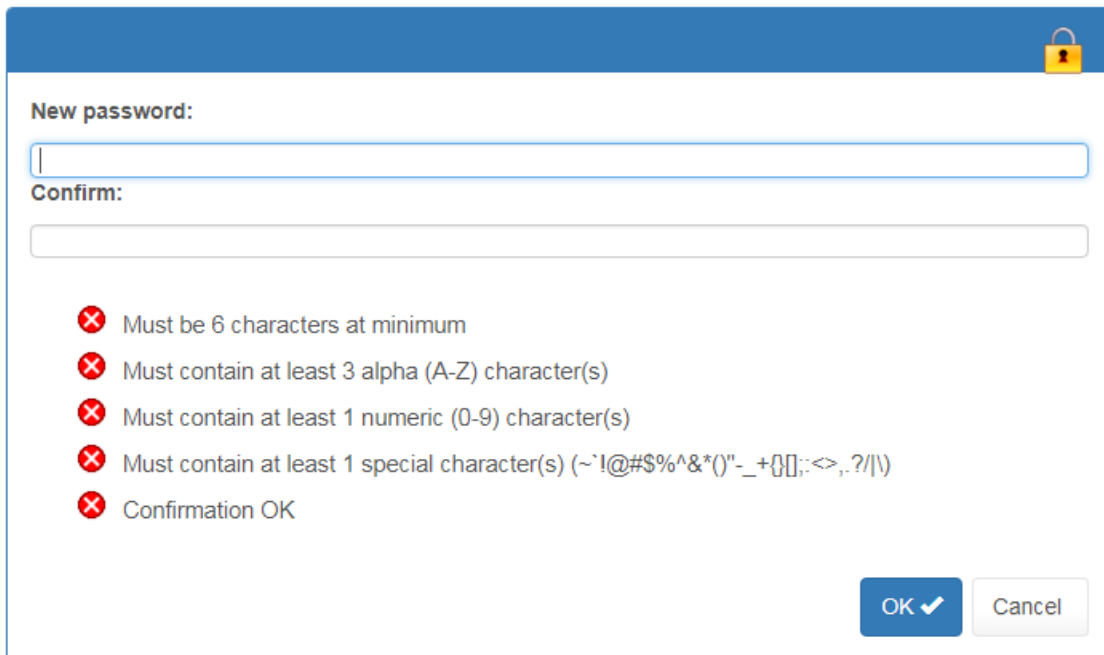
Login

Forgot Password

### 5.2.3 Enter your temporary password

Once you have clicked the Reset button you should shortly receive an email with a temporary password. Use this password with your DAWN Username to login. On logging in you will be

asked to set a new password.

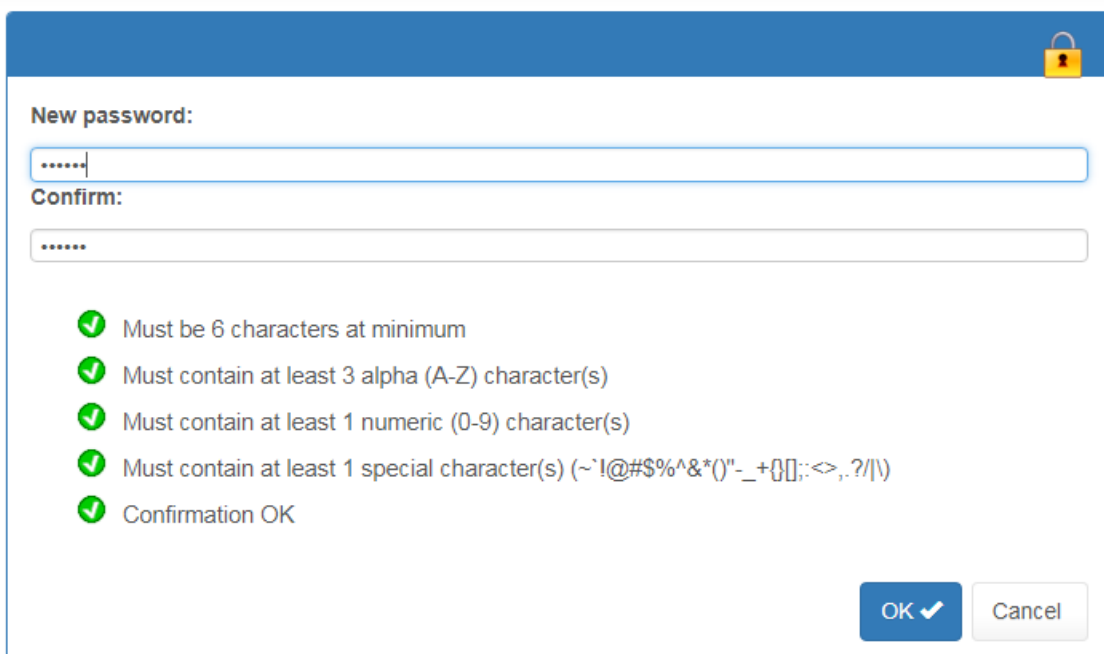


The screenshot shows a 'New password' dialog box with a blue header bar containing a yellow padlock icon. Below the header, there are two text input fields: 'New password:' and 'Confirm:'. Below these fields, there is a list of five requirements, each preceded by a red 'X' icon, indicating that the current input does not meet the requirements:

- Must be 6 characters at minimum
- Must contain at least 3 alpha (A-Z) character(s)
- Must contain at least 1 numeric (0-9) character(s)
- Must contain at least 1 special character(s) (~`!@#\$%^&\*()"-\_+{}[];:<>.,?/\|)
- Confirmation OK

At the bottom right of the dialog box, there are two buttons: 'OK' with a green checkmark icon and 'Cancel'.

The new password must meet the requirements listed under the new password text boxes. When you input a new password, as you meet the requirements the red cross will change to a green tick. Once all the requirements have been met, you can click the OK button to set your new password. (For example, a password such as Tracy1! would meet these criteria).



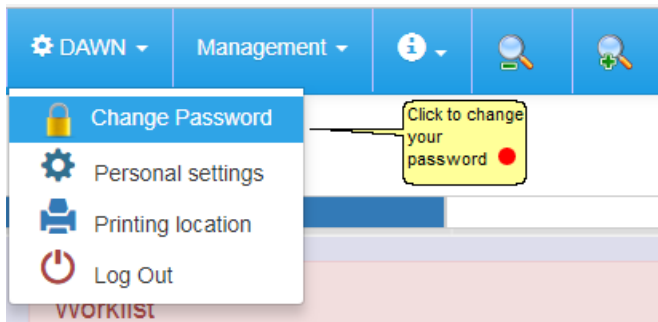
The screenshot shows the same 'New password' dialog box, but now the requirements are marked with green checkmark icons, indicating that the input meets all the criteria:

- Must be 6 characters at minimum
- Must contain at least 3 alpha (A-Z) character(s)
- Must contain at least 1 numeric (0-9) character(s)
- Must contain at least 1 special character(s) (~`!@#\$%^&\*()"-\_+{}[];:<>.,?/\|)
- Confirmation OK


The 'New password:' and 'Confirm:' fields now contain masked text (dots). The 'OK' button with the green checkmark icon is highlighted, and the 'Cancel' button is also visible.

If your password change has been successful, the system should log you into DAWN. If you are unsuccessful, a message should appear telling you why.

## 5.2.4 Changing your password



## 5.2.5 Enter your new password



**Current Password:**

**New password:**

**Confirm:**

- ✗ Must be 6 characters at minimum
- ✗ Must contain at least 3 alpha (A-Z) character(s)
- ✗ Must contain at least 1 numeric (0-9) character(s)
- ✗ Must contain at least 1 special character(s) (~!@#\$%^&\*()"-\_+{}|;:<>.,?/\)
- ✗ Confirmation OK

OK ✓

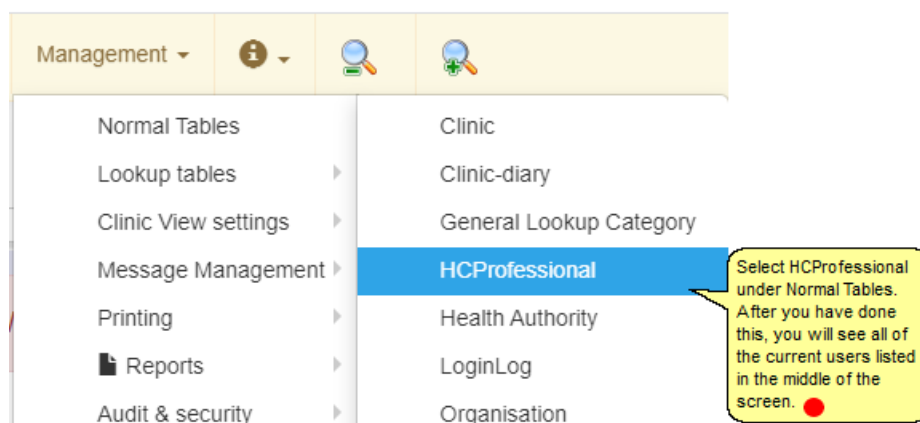
Cancel

### 5.2.6 Reset a password using another account

Follow this guide to reset a password using another account (*because a user has forgotten their password and the account is locked out*).

Log into your DAWN system *Hint - If you are a system administrator you might wish to keep a spare account for this.*

Click on the System Menu button and the System Menu list will appear.



### 5.2.6.1 Search for the user

Enter the Last Name of the user you want to find into the box labelled “LastName” at the top of the screen and click Search.

Search

Search for:

Organisation

Role

Last name

Nicol

First name

User

Search

	Organisation	Role	Last name	First name	Initials	In Use
	Dawn Hospital	Consultant	Nicol	A	AN	<input checked="" type="checkbox"/>
	The Hospital	GP email contact	Nicol	Brenda	BN	<input checked="" type="checkbox"/>
	The Hospital	BMS	Nicol	Brenda		<input checked="" type="checkbox"/>

⏮

⏭

⬆ Up

⬇ Down

New

Save

Print

↺

1-3 / 3\*



### 5.2.6.2 Edit the HCProfessional

HCProfessional ✕

Dawn Hospital - Nicol A

Organisation: Dawn Hospital

Role: Consultant

Last name: Nicol

First name: A

Initials: AN

In Use: ☒

Select the Account info tab.

Address info Teams Account info Notes Patients

User: Tony

Click to reset existing password for user

Select Click to reset password

Password Expire: 28/04/2012


Failed logins: 0

Failed logins (all): 0

Locked: ☐

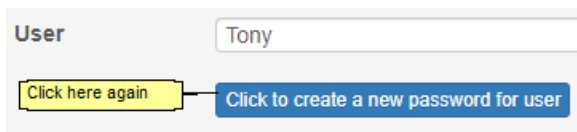
The failed login count gives the total number of failed logins logged so far for the user. This checkbox indicates whether the account is 'locked' and therefore used or not. A user can have five attempts to login with the incorrect password before their account will be automatically locked. This checkbox can also be manually selected to lock a users account. Uncheck this box to unlock a users account

### 5.2.6.3 Click to set new password

 The password for user 'Tony' has been cleared.




The screen is shown as below



The image shows a user login interface. At the top, there is a label 'User' next to a text input field containing the name 'Tony'. Below the input field, there is a button with the text 'Click to create a new password for user'. A yellow callout box with the text 'Click here again' points to this button.

You will then see this message

 The password for user 'Tony' has been set to:

emzv69

The user will need to immediately set a new password when first logging in.



Make a note of the new password.

Your user can then log in using this new password. At login, they will be asked to set a new password as the computer-generated one is set to automatically expire.

## 5.2.7 Logging In - Active Directory Support

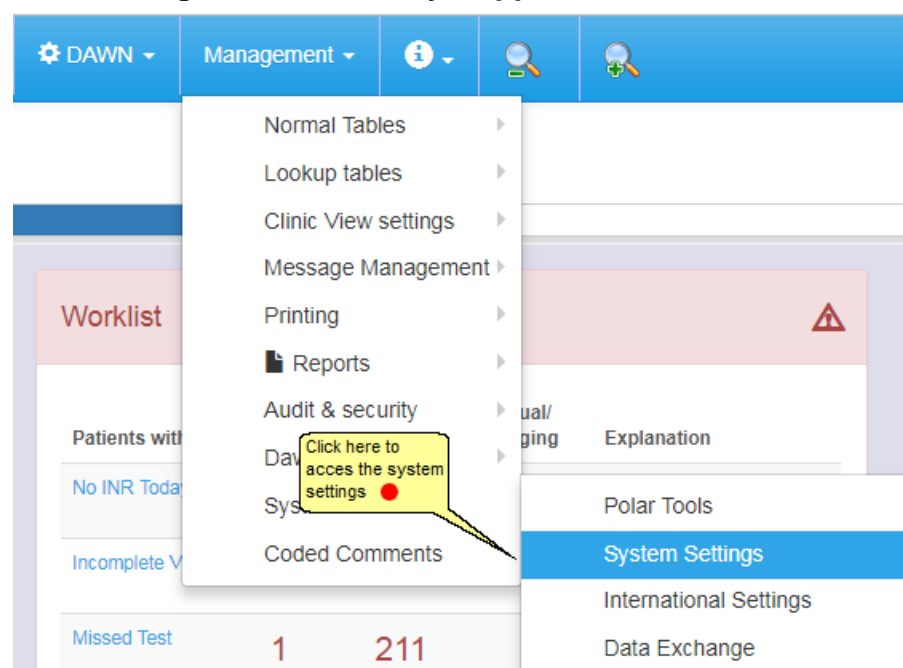
DAWN version 7.0 (1010 and above) supports Active Directory Login. This means users who have a network login can store this ID in DAWN. When they access the application, if DAWN recognises their network ID, it automatically logs them in without prompting them to type a DAWN specific user ID and password.

Enable Active Directory Support

Update each user's Healthcare Professional Account record with their Network ID

Disabling Anonymous Access to the DAWN AC Website

### 5.2.7.1 Enabling Active Directory Support in DAWN AC



1.

#### 5.2.7.1.1 Amending the system settings - domain

Type "Domain" into the *Search for Name* field and click the Search button.  
The *DefaultNetworkDomain* system setting is displayed.

System Settings ✕

Search Q

Sorting: By Type/Name

Search for: Name Value

Search

Customizations

Name	Value	Description	Type	Min	Max	Required	Last Changed
DefaultNetworkDomain	4slive.global	The default domain for the network, used for the automatic identification of users	text	1	64	<input type="checkbox"/>	10/11/2015 10:55

Enter the name of your active directory domain

Click on save

Save Print

1-1 / 1\*

#### 5.2.7.1.2 Amending the system settings - Active Directory

Enter "ActiveDirectory" in the *Search for Name* field and press the Search Button. The *SupportActiveDirectory* system setting is displayed.

System Settings ✕

Search Q

Sorting: By Type/Name

Search for: Name Value

Search

Customizations

Name	Value	Description
SupportActiveDirectory	1	Does the login-procedure support automatic logon of users using their network-name

Click Save

Make sure the Value is set to 1 (to disable Active Directory support change the Value to 0).

Down Save Print

1-20 / 165

#### 5.2.7.2 Update each user's Healthcare Professional Account record with their Network ID

DAWN Management

Normal Tables

Lookup tables

Clinic View settings

Click to edit HC Professionals

Printing

Reports

Audit & security

Dawn Interface

System

Coded Comments

Clinic

Clinic-diary

General Lookup Category

HCPProfessional

Health Authority

LoginLog

Organisation

Patient Group

Questionnaire Type

Reference Range

Worklist

Patients with

No INR Today

Incomplete

### 5.2.7.2.1 List of HC Professionals

HCProfessional ✕

Search 🔍

Search for: Organisation  Role  Last name   
First name  User

Click on the form icon beside each record to show HCProfessional details

You can optionally search on any of these fields

	Organisation	Role	Last name	First name	Initials	In Use
	11 SHEEN COURT	GP	McGroarty	Feargal	C	<input checked="" type="checkbox"/>
	11 SHEEN COURT	BMS	Seal	John	JS	<input checked="" type="checkbox"/>
	14 IMPERIAL AVENUE	GP	Perry	V U	P	<input checked="" type="checkbox"/>
	18 DEBADALE HOUSE	GP	Mark	Alexandra	B	<input type="checkbox"/>
	21 STILEMAN HOUSE	GP	Heritage	V I	H	<input checked="" type="checkbox"/>
	21 STILEMAN HOUSE	GP	Hughes	G A	H	<input checked="" type="checkbox"/>
	21 STILEMAN HOUSE	GP email contact	Jack	lisa.jones@bflwhospitals.nhs.uk	G	<input checked="" type="checkbox"/>
	21 STILEMAN HOUSE	GP	Miah	T D	M	<input checked="" type="checkbox"/>
	21 STILEMAN HOUSE	GP	Rosindale	X A	R	<input checked="" type="checkbox"/>
	21 STILEMAN HOUSE	District Nurse	Smith	Paul	PS	<input checked="" type="checkbox"/>
	21 STILEMAN HOUSE	GP	Trainer	F R	T	<input checked="" type="checkbox"/>
	25 ALEXANDER ROAD	GP	Man	A		<input checked="" type="checkbox"/>
	25 Lulworth Crescent	GP	Alli	Z B	A	<input checked="" type="checkbox"/>
	25 Lulworth Crescent	GP	Biss	B	BB	<input checked="" type="checkbox"/>

### 5.2.7.2.2 Update Network Logins

Updating the Healthcare Professionals' Account Records

Address info Teams **Account info** Notes Patients

User DDawn

Click to reset existing password for user

Password Expires 16/03/2017

Failed logins 0

Failed logins (all) 1

Locked ☐

Last login date 17/03/2017 09:12

Total logins 5

User Profile System Manager

Network Login Dawn

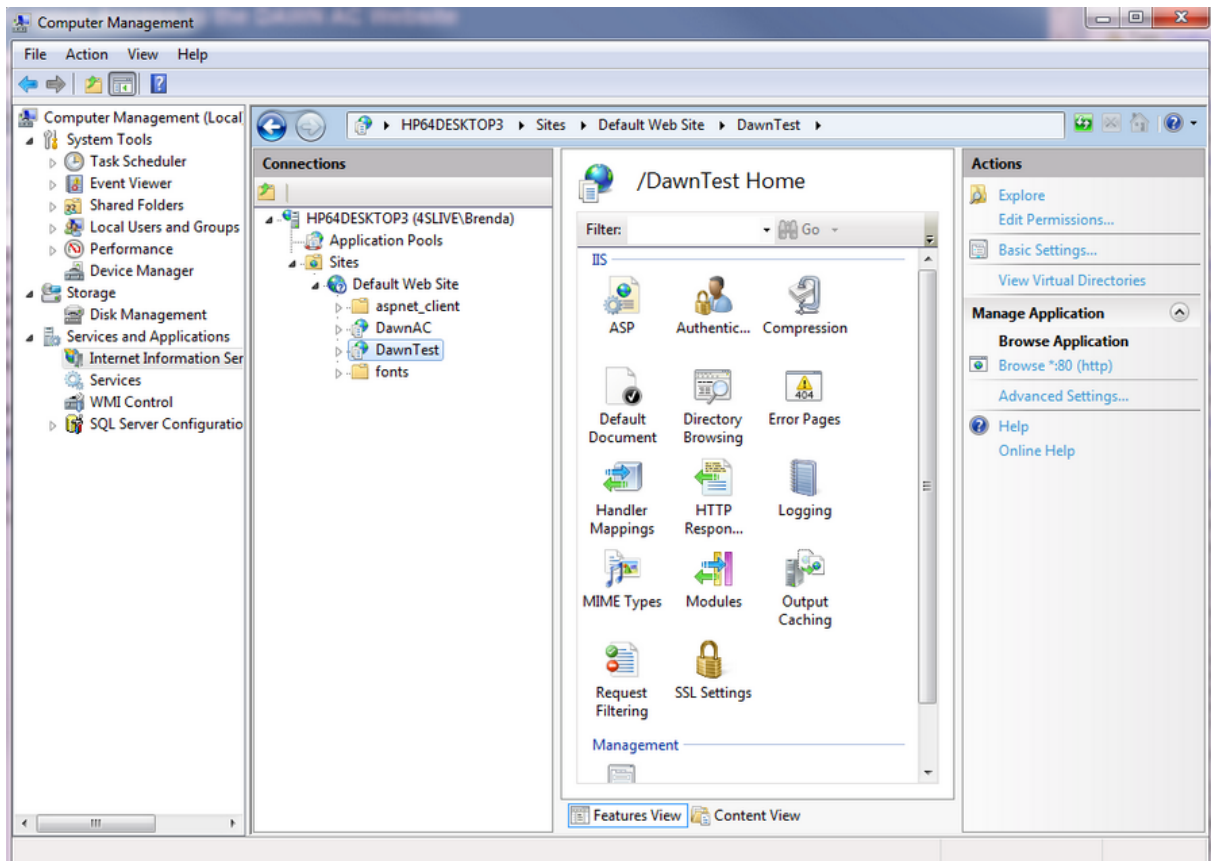
Enter the user's Active Directory Network User ID in the NetworkName field.

Click to save

Navigation: Previous, Next, New, Delete, Save, List, Print, Refresh

### 5.2.7.3 Disabling Anonymous Access to the DAWN AC Website

Right click on My Computer and choose Manage from the pop up context menu to display the Computer Management Console.



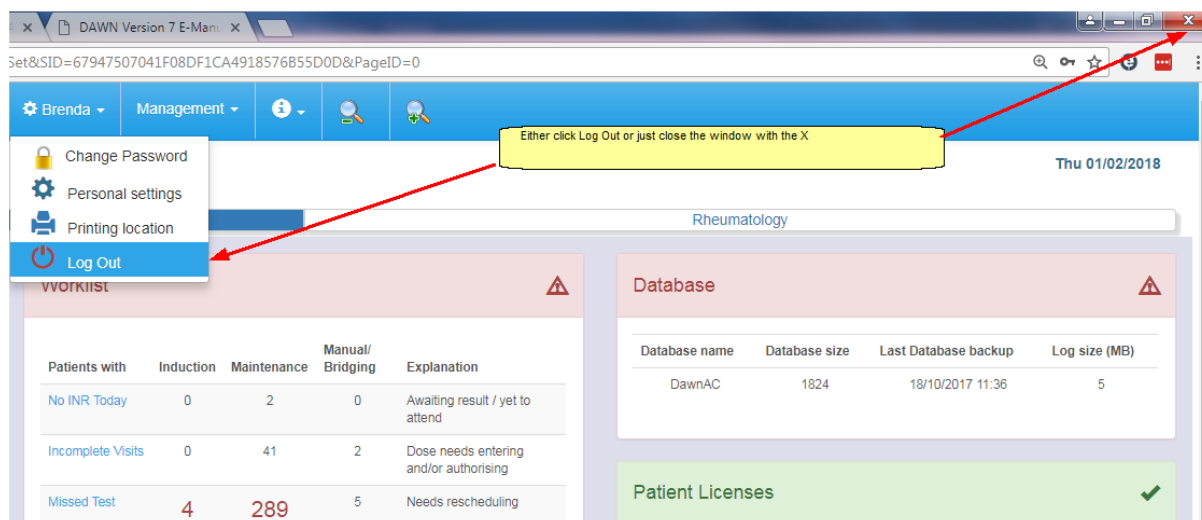
Expand the Services and Applications branch of the menu and click on Internet Information Services.

Expand the Web Sites folder, right click on the Web Site which hosts DAWN AC and choose Properties from the pop up context menu. The web site properties are displayed.

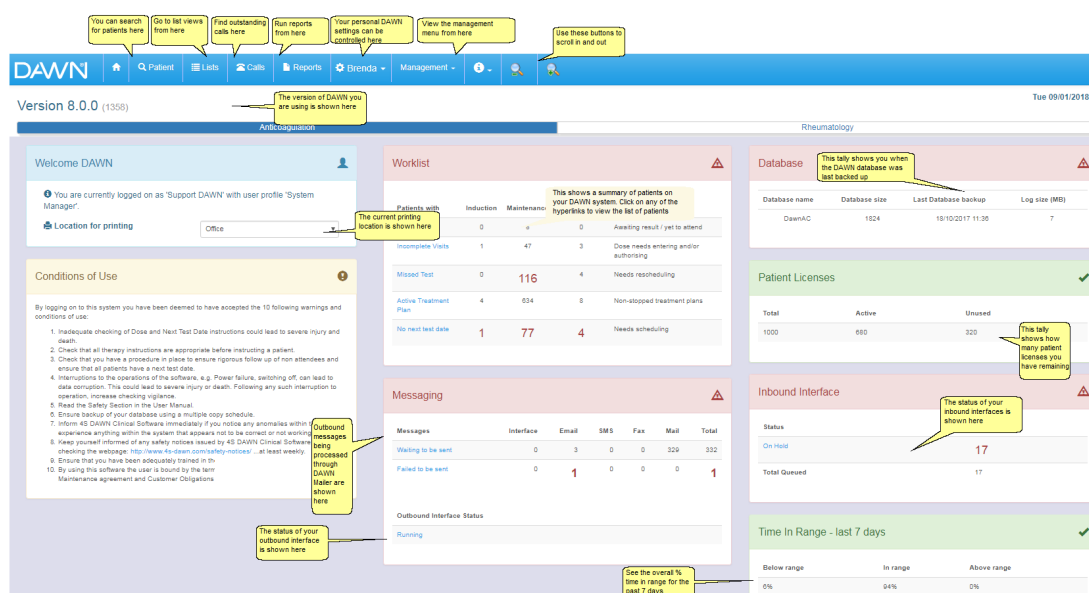
Choose the Directory Security page and click the Edit button in the Anonymous Access and Authentication section

Deselect the Anonymous Access option and ensure the Integrated Windows Authentication option is selected.

## 5.3 Logging out of DAWN



## 5.4 DAWN Front Page



### 5.4.1 Concurrent User Warning

DAWN alerts you if there are other DAWN users viewing the same patient record as you are. The system setting **ConcurrentUsersWarning\_Enabled** must be set to 1 to enable this functionality. The alert is enabled by default and can be switched off by setting the **ConcurrentUsersWarning\_Enabled** system setting value to 0.



**This feature does not work if DAWN user profiles are shared across multiple users. Sharing a single DAWN user profile across multiple users is actively discouraged and not recommended.**

**This warning will not be triggered if the interface updates patient information whilst there is a user in the patient record.**

**The Concurrent User Warning does not stop a user from updating the**

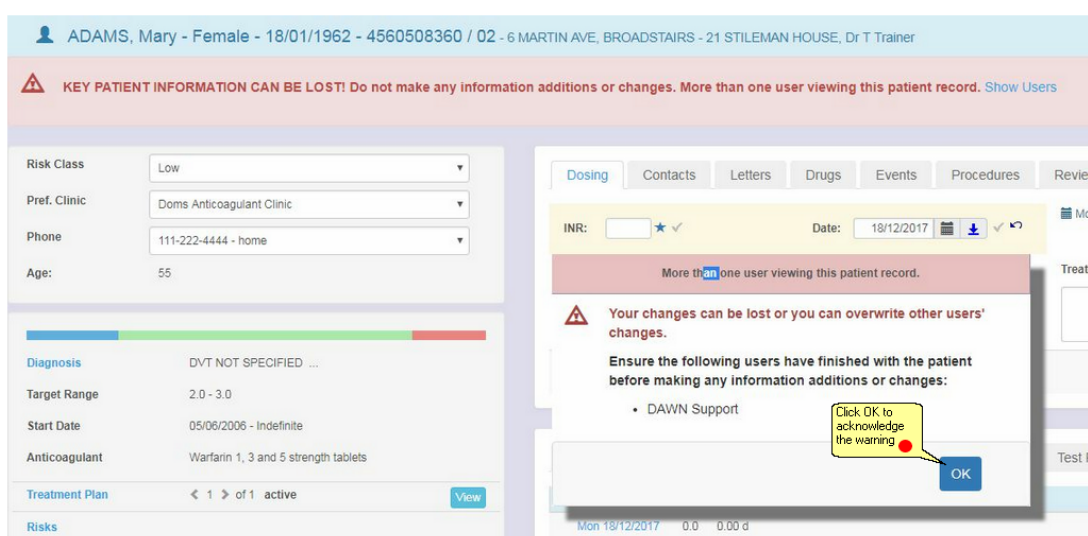


patient record. It is at the user's discretion to ensure that it is safe to update the patient record whilst this warning is displayed.

## Concurrent User Warning

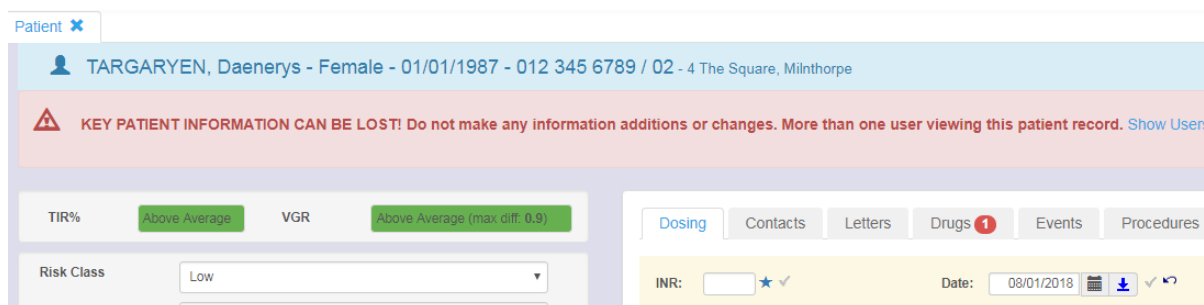
### 5.4.1.1 Concurrent User Warning Message

If you open a patient record and there is at least one other person already viewing the same patient record then a warning will be displayed that other users are viewing this patient record. The warning will list the other users currently viewing this patient record.



User warning pop up With a list of current users viewing this patient record

### 5.4.1.2 Acknowledge the warning message



The banner will remain visible whilst you are viewing the patient record and there are also other users viewing the same patient record. The pop up window will only be displayed the first time you visit the patient record.

Clicking the Show Users button will open a pop up window and display a list of users viewing the same patient record. However, if there are no longer any other users viewing the patient record then the banner will disappear. This can be used to check if the patient record is safe to edit.

The pop up window can be disabled from being displayed when you first navigate to a patient record that is already open by another user by setting the ConcurrentUsers\_ShowMessageBox system setting value to 0. This will not stop the pop up window from being displayed when you click Show Users on the banner.

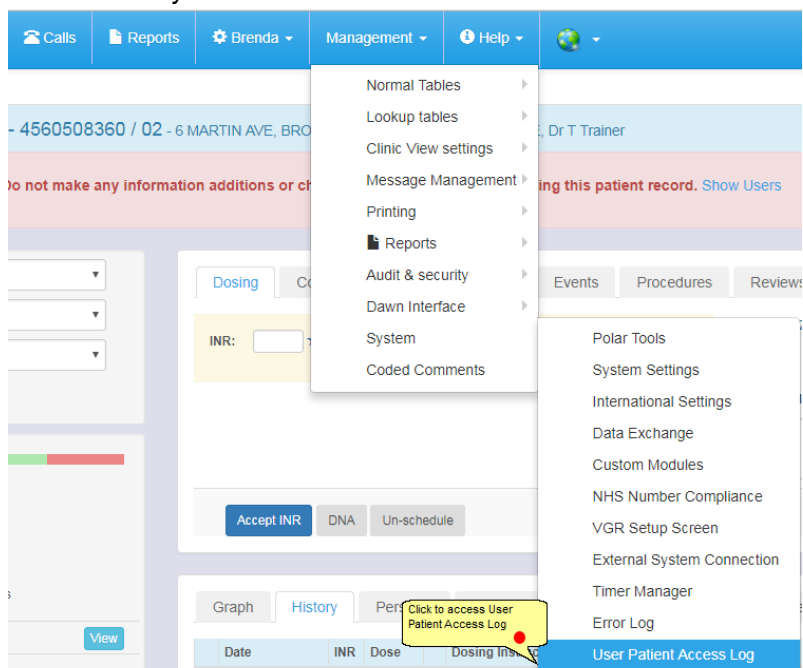
### 5.4.1.3 Troubleshooting

1. I keep getting the Concurrent User Warning after I have clicked Show Users. However, I know that the user or users listed are no longer viewing the same patient record?

Answer: If the user has exited DAWN by closing the browser window via the (X) then it could take up to 20 minutes for the users session to expire depending on how DAWN is configured. When this happens the user will no longer show as viewing the patient record. Users should log out of DAWN using the Log Out flag located on the top right of the DAWN application to prevent this scenario.

2. The User or Users are still showing as viewing the patient even after 20 minutes of being logged out.

Answer: It is possible that DAWN or the machine running DAWN may have been restarted whilst there were Users using the system. In this case the User Patient Access Log records will have to be manually removed using the User Patient Access Log form located in the System Menu under System -> User Patient Access Log. Only users with the relevant permissions can access the System Menu.



5.4.1.4 User Patient Access Log

To remove a user from the User Patient Access Log, select the rubbish bin icon and then click the Save button.

Patient ✕		UserPatientAccessLog ✕	
HC Professional		Patient	Date Accessed
	Dawn Hospital - Support DAWN	ADAMS Mary (18/01/1962) # M47904 / 4560508360	20/11/2017 14:38
	Dalton Square Surgery - Nicol Brenda	ADAMS Mary (18/01/1962) # M47904 / 4560508360	20/11/2017 14:39

User Patient Access log screen shows which patient record each user is viewing. If there is a user stuck viewing a patient record even though they have logged out of DAWN, the rubbish bin can be selected and the Save button clicked to remove the User Patient Access Log.

5.5 Distinguishing live from test systems


DAWN has different menus for Test and Live or Production systems.


DAWN Live


DAWN Test


5.5.1 DAWN Live System


DAWN®





 Patient


 Lists


 Calls


 Reports

 Brenda ▾

 Management ▾


 ▾







Version 8.0.0 (1359)

Anticoagulation

Welcome DAWN

 You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

 Location for printing

Office ▾

Worklist

Patients with	Induction	Maintenance	Manual/ Bridging	Explanati
No INR Today	0	7	0	Awaiting r attend

### 5.5.2 DAWN Test System

The screenshot shows the DAWN Test System interface. At the top is a navigation bar with icons for Home, Patient, Lists, Calls, Reports, DAWN (selected), Management, and a user profile icon. Below the navigation bar, a notification bell icon is followed by the text "Test System Version 8.0.0 (1359)". The main content area is titled "Anticoagulation". On the left, a "Welcome DAWN" message states: "You are currently logged on as 'Support DAWN' with user profile 'System Manager'." Below this is a "Location for printing" dropdown menu set to "Office". On the right, a "Worklist" table is displayed.

Patients with	Induction	Maintenance	Manual/ Bridging	Explanation
No INR Today	0	7	0	Awaiting res attend

### 5.5.3 Setting the test or live system

The screenshot shows the DAWN Test System interface with the "Management" menu open. The menu options are: Normal Tables, Lookup tables, Clinic View settings, Message Management, Printing, Reports, Audit & security, Dawn Interface, System, and Coded Comments. The "System" option is highlighted. Below the menu, the "System Settings" option is selected, and a yellow callout box points to it with the text "Click on System Settings". The background shows a "Database" section with a "Database name" field and a "Polar Tools" section.

Patients with	Induction	Maintenance	Manual/ Bridging	Explanation
No INR Today	0	7	0	Awaiting res attend
Complete tests	0			
sed Test	4	380	3	Need resch
ve treatment	4	601	8	Non-s treat

### 5.5.3.1 Edit the Live/Test system setting

System Settings ✕

---

**Search** 🔍

Sorting:  By Type/Name

Search for: Name ⓘ  Value ⓘ

---

**Customizations**

Name ⓘ	Value ⓘ	Description ⓘ	Type	Min	Max
Test_System	<input type="text" value="0"/>	Is this a DAWN Test system: 0 - No, it's a production system; 1 - Yes, it's a test system	Integer	<input type="text" value="0"/>	<input type="text" value="1"/>

Set the value to 1 to display the test system or 0 for live

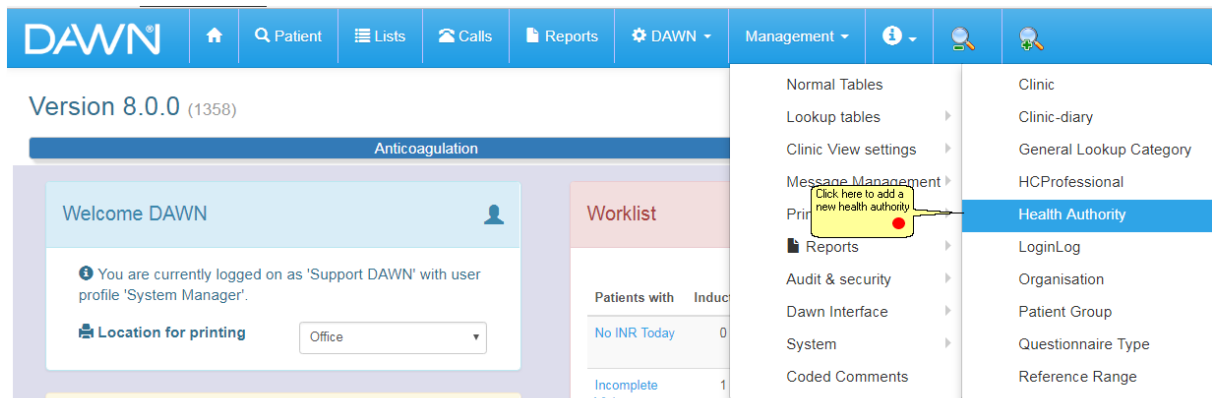
Search for Test\_System

Save Print Refresh

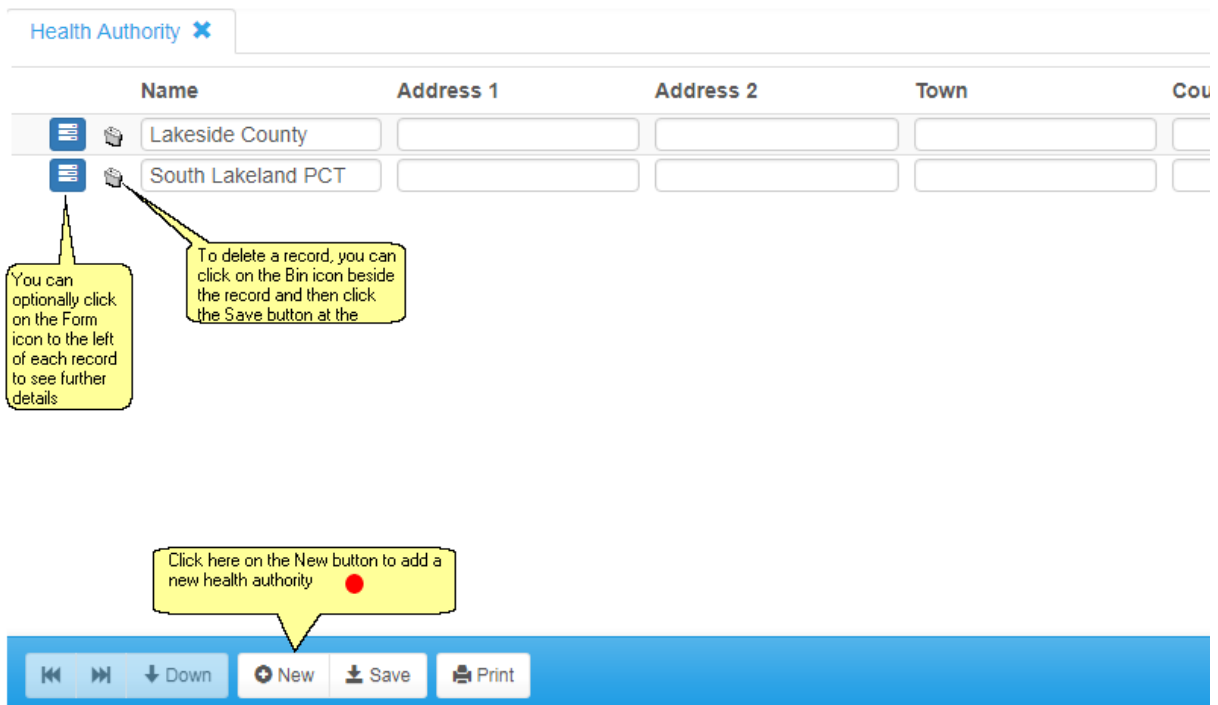
## 6 Configuring the System

### 6.1 Adding/Editing Health Authorities

Health Authorities can be added into the system in order to group organisations for reporting purposes. A Health Authority needs to be added before an organisation can be created.



#### 6.1.1 List of Health Authorities



### 6.1.2 Adding/Editing Health Authorities

The screenshot shows the DAWN system interface for adding or editing a Health Authority. The form has a blue header with the DAWN logo. Below the header, there is a tab labeled 'Health Authority' with a close button (X). The form fields are: Name, Address 1, Address 2, Town, County, Postcode, Telephone, Fax, and Email. A yellow callout bubble points to the Name field with the text 'Enter a name and other details'. Below the form fields, there is a message: 'You will need to save this new record before you can add related records'. At the bottom of the form, there are two buttons: 'OK' and 'Cancel'. A yellow callout bubble points to the OK button with the text: 'Click here on the OK button to save this record and return to the list of organisation types: ●'. The OK button has a checkmark icon, and the Cancel button has an X icon.

### 6.2 Adding/Editing Organisation Types

If you need to add a type for an organisation that does not exist in the standard list, new types can be added here.

Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Conditions of Use

By logging on to this system you have been deemed to have accepted the 10 following warnings and conditions of use:

1. Inadequate checking of Dose and Next Test Date instructions could lead to severe injury and death.
2. Check that all therapy instructions are appropriate before instructing a patient.
3. Check that you have a procedure in place to ensure rigorous follow up of non attendees and ensure that all patients have a next test date.
4. Interruptions to the operations of the software, e.g. Power failure, switching off, can lead to data corruption. This could lead to severe injury or death. Following any such interruption to operation, increase checking vigilance.
5. Read the Safety Section in the User Manual.
6. Ensure backup of your database using a multiple copy schedule.
7. Inform 4S DAWN Clinical Software immediately if you notice any anomalies within the data or experience anything within the system that appears not to be correct or not working correctly.
8. If you suspect a failure of any software or hardware, please contact 4S DAWN Clinical.

Worklist

Patients with

No INR Today

Incomplete Visits

Missed Test	2	93
Active Treatment Plan	2	630
No next test date	0	28

Messaging

Messages Interface Email

Click here to add a new organisation type

## 6.2.1 List of Organisation Types

DAWN

Organisation Type

Description

DescriptionMulti

In Use ☒

Click here on the OK button to save this record and return to the list of organisation types.

The InUse box must be checked in order to use this organisation type.

You can add organisation type details here.

OK Cancel



### 6.2.2 Adding/Editing an Organisation Type

**DAWN®**

Organisation Type ✕

Description

DescriptionMulti i

In Use ☒

Click here on the OK button to save this record and return to the list of organisation types.

The InUse box must be checked in order to use this organisation type.

You can add organisation type details here.

✓ OK ✕ Cancel

### 6.3 Adding/Editing Organisations

Different organisations can be set up within the system so that healthcare professionals and clinics can belong to a particular organisation. You must have a Health Authority set up within the system before creating a new Organisation.

**DAWN®** | Home | Patient | Lists | Calls | Reports | DAWN | Management | Help |

Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Conditions of Use

By logging on to this system you have been deemed to have accepted the 10 following warnings and conditions of use:

1. Inadequate checking of Dose and Next Test Date instructions could lead to severe injury and death.
2. Check that all therapy instructions are appropriate before instructing a patient.
3. Check that you have a procedure in place to ensure rigorous follow up of non attendees and ensure that all patients have a next test date.
4. Interruptions to the operations of the software, e.g. Power failure, switching off,

Worklist

Patients with

No INR Today		
Incomplete Visits		
Missed Test	2	93
Active Treatment Plan	2	630
No next test date	0	28

Management Menu:

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Dawn Intranet
- System
- Coded Comments
- Clinic
- Clinic-diary
- General Lookup Category
- HCPProfessional
- Health Authority
- LoginLog
- Organisation**
- Patient Group
- Questionnaire Type
- Reference Range
- Team
- Test
- Test Alias
- Test Group
- Therapy Template
- Trial
- Ward

Click here to add a new organisation

### 6.3.1 List of Organisations

**DAWN®**
Home
Search Patient
Lists
Calls
Reports
DAWN ▾
Management



Organisation ✕

Search



















**Selection:** OwnOrganisation

**Search for:** Type Name

**Assisted Care**

	Name	In Use	Address 1	Address 2
 	Meadowfield	<input checked="" type="checkbox"/>	4 The Square	

**GP Practice**

	Name	In Use	Address 1	Address 2
 	ST JOHNS MEDICAL CENTR	<input checked="" type="checkbox"/>	86 BROOKSIDE AVENUE	PITSEA STREET
 	11 SHEEN COURT	<input checked="" type="checkbox"/>	OULTON	
 	Dethick Court Practice	<input checked="" type="checkbox"/>	11 Dethick Court	Burnop St
 	98 CLOSEFIELD GROVE	<input checked="" type="checkbox"/>	ASHFORD	
 	26 DALEACRE	<input checked="" type="checkbox"/>		
 	21 STILEMAN HOUSE	<input checked="" type="checkbox"/>	BURLEY-IN-WHARFEDALE	
 	FARLEY HEAL	<input checked="" type="checkbox"/>	179 POOLEY GREEN RD	
 	25 ALEXANDE	<input checked="" type="checkbox"/>	ST DOGMAELS	
 	BROCKWOOD & Co HEALTH	<input checked="" type="checkbox"/>	STATION RD	

Click here to add a new organisation

⏮
⏭
↓ Down
➕ New
💾 Save
🖨 Print

### 6.3.2 Adding/Editing Organisations

Organisation ✕

(New record)

Type An organisation type must be chosen from the list GP Practice Group

Name An organisation name must be unique The Doctors Practice

In Use ☒ The in use box must be checked to use this organisation

Address Health care professionals Teams Wards Location Clinics Monitoring Patient groups Print station

TestCentres

Address 1

Address 2

Town

County

Postcode

Telephone

Fax

Email

Code

Click here to save the record. (Make a choice) If this organisation is going to monitor patients, click on the Monitoring tab.

OK Cancel A health authority must be selected

### 6.3.2.1 Mark the organisation as the monitoring organisation

The screenshot shows the 'Organisation' form with the following fields and callouts:

- Organisation** (blue header with a close icon)
- (New record)** (blue header)
- Type**: A dropdown menu showing 'GP Practice Group'. Callout: 'An organisation type must be chosen from the list'.
- Name**: A text field containing 'The Doctors Practice'. Callout: 'An organisation name must be unique'.
- In Use**: A checkbox that is checked. Callout: 'The in use box must be checked to use this organisation'.
- Tabs**: A row of tabs including 'Address' (selected), 'Health care professionals', 'Teams', 'Wards', 'Location', 'Clinics', 'Monitoring', 'Patient groups', and 'Print station'. Callout for 'Monitoring': 'If this organisation is going to monitor patients, click on the Monitoring tab'.
- TestCentres**: A sub-header for the address fields.
- Address 1**, **Address 2**, **Town**, **County**, **Postcode**, **Telephone**, **Fax**, **Email**, and **Code**: Text input fields.
- Save**: A button with a red dot icon. Callout: 'Click here to save the record'.
- Health authority**: A dropdown menu showing '(Make a choice)'. Callout: 'A health authority must be selected'.
- Buttons**: 'OK' and 'Cancel' buttons at the bottom.

Enter topic text here.

## 6.4 Adding/Editing Organisation Wards (Optional)

Wards can optionally be set up within the system to monitor inpatients. You must have an Organisation set up within the system before creating a new Ward.

Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Conditions of Use

By logging on to this system you have been deemed to have accepted the 10 following warnings and conditions of use:

1. Inadequate checking of Dose and Next Test Date instructions could lead to severe injury and death.
2. Check that all therapy instructions are appropriate before instructing a patient.
3. Check that you have a procedure in place to ensure rigorous follow up of non attendees and ensure that all patients have a next test date.
4. Interruptions to the operations of the software, e.g. Power failure, switching off,

Worklist

Patients with

No INR Today

Incomplete Visits

Missed Test: 2 (93)

Active Treatment Plan: 2 (630)

No next test date: 0 (28)

Click here to add a new Ward.

Management menu items:

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Dawn Interface
- System
- Coded Comments
- Clinic
- Clinic-diary
- General Lookup Category
- HCPProfessional
- Health Authority
- LoginLog
- Organisation
- Patient Group
- Questionnaire Type
- Reference Range
- Team
- Test
- Test Alias
- Test Group
- Therapy Template
- Trial
- Ward

### 6.4.1 List of Wards

Ward X

Organisation	Description
Dawn Hospital	Ward 18
Moor Street	Ward 10

Navigation buttons: Previous, Next, Down, New, Save, Print, Refresh

Click here to add a new ward

### 6.4.2 New Ward Form

The screenshot shows the 'New Ward' form in the DAWN system. The form has a blue header with the 'DAWN' logo and a globe icon. Below the header, there is a 'Ward' tab with a close button. The form contains three main sections: 'Organisation', 'Description', and 'In Use'. The 'Organisation' section has a dropdown menu with the text '(Make a choice)'. The 'Description' section has a text input field. The 'In Use' section has a checkbox that is currently checked. At the bottom of the form, there are 'OK' and 'Cancel' buttons. Several yellow callout boxes provide instructions: one points to the 'Organisation' dropdown stating it is mandatory; another points to the 'Description' text field stating a name can be added; a third points to the 'In Use' checkbox stating it must be checked; and a fourth points to the 'OK' button stating it saves the ward and returns to the list.

**DAWN**

Ward x

Organisation  
Description  
In Use

(Make a choice)

A Ward name can be added here.

☒

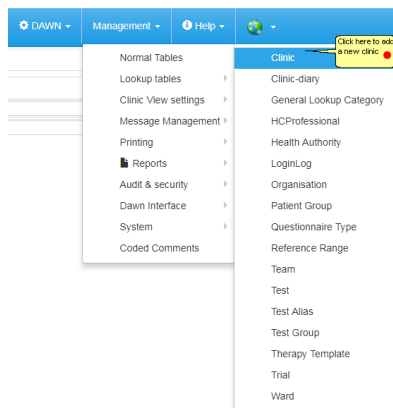
The InUse box must be checked in order to use this ward.

Click here on the OK button to save this new ward and return to the list of existing wards.

✓ OK ✗ Cancel

## 6.5 Adding/Editing Clinics

Clinics must be set up within the system so that patients can be booked into these clinics for each visit. Patients can also be logged as having a particular preferred clinic. You will need to set up an Organisation before creating a new clinic.



## 6.5.1 List of Clinics

The screenshot shows the DAWN Clinic management interface. The left pane displays the 'Clinic' details for 'Anticoagulation Ripon District Nurses'. The right pane shows a list of clinics.

**Clinic Details:**

- Disease area: Anticoagulation
- Description: Anticoagulation Ripon District Nurses
- Organisation: Dawn Hospital
- Local Code: B1
- In Use: ☒

**Clinic List:**

Disease area	Organisation	Description	In Use
Anticoagulation	Dawn Hospital	Anticoagulation Ripon District Nurses	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Badger	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Dabigatran pathway	<input checked="" type="checkbox"/>
NOAC	Dawn Hospital	Dabigatran Review Clinic	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Dalton Square Surgery GP (S)	<input checked="" type="checkbox"/>
Haematology	Dawn Hospital	Day Hospital Clinic	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Doms Anticoagulant Clinic	<input checked="" type="checkbox"/>
Gastroenterology	Dawn Hospital	DVT Clinic	<input checked="" type="checkbox"/>
Haematology	Dawn Hospital	Nurse-led Clinic	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Outreach Nurse Clinic Barnet	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Park Lane	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Pathology Outpatients (M)	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	Self tester phone (home)	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	South Malmthorpe self (RC)	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	zavenue	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zBank Hill	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zBamsley	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zBradford	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zBriggs	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zClarence	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zCode Road	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zDay	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zDodge	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zEdgeware	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zHanover	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zLane	<input type="checkbox"/>
Rheumatology	Dawn Hospital	zMonitoring Clinic	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zPotters	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zRagmore HAC	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zRagmore Postal GP service	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zRose	<input type="checkbox"/>

## 6.5.2 Adding/Editing Clinic Details

**Clinic** ✕

**Disease area** (Make a choice)   
 \*A Disease area must be specified for the clinic, eg, anticoagulation

**Description**   
 \*A clinic description and organisation must be specified for the new clinic. The clinic description must be unique. The clinic's local code may also optionally be added.

**Organisation** (Make a choice)

**Local Code**

**In Use** ☒   
 \*The in use box must be checked in order to use this clinic

[Slot Templates](#) [Adjustments](#) [Create/Delete Diary](#)

You will need to save this new record before you can add related records

**Default Device** (None selected)   
 \*If the clinic is a point-of-care testing clinic, you have the option to select the default device used in the clinic. This info can be used by outbound interfaces that send test result and device info to other systems.

✓ OK ✕ Cancel

Click here to save the record and move onto adding slot templates ●



### 6.5.3 Adding/Editing Slot Templates

The screenshot shows the DAWN system interface for configuring a clinic slot template. The top navigation bar includes the DAWN logo and links for Patient, Lists, Calls, Reports, DAWN (with a dropdown arrow), Management (with a dropdown arrow), and Help (with a dropdown arrow). Below the navigation bar, a 'Clinic' tab is active. The main form contains the following fields:

- Disease area:** A dropdown menu with 'Anticoagulation' selected.
- Description:** A text input field containing 'Meadowside'.
- Organisation:** A dropdown menu with 'The Hospital' selected and a blue arrow button to the right.
- Local Code:** An empty text input field.
- In Use:** A checkbox that is checked.

Below the form fields, there are three tabs: 'Slot Templates' (selected), 'Adjustments', and 'Create/Delete Diary'. Under the 'Slot Templates' tab, there is a button labeled 'Add a new record' with a plus icon. Below this button, the text 'There are no items to display' is shown. A yellow callout box points to the 'Add a new record' button with the following text: 'Slot templates determine how the clinic diary is set up, eg, what days the clinic runs on, how many time slots for each day, how many patients in each clinic slot, etc. Click here to add a new slot template.' A red dot is located at the end of the callout text.

## 6.5.4 New Slot Template Form

The screenshot shows the 'New Slot Template' form in the DAWN application. The form is titled 'ClinicSlotTemplate' and is for 'Clinic: Meadowside'. It is a 'New record' form. The form contains the following fields and options:

- Start Time:** 0800
- End time:** 1300
- Max. cap.:** 1
- Reserved cap.:** 1
- Interval:** 5 minutes
- Days:** Sun (unchecked), Mon (checked), Tue (checked), Wed (checked), Thu (checked), Fri (unchecked), Sat (unchecked)

Callouts provide additional information:

- A start and end time must be specified in the format HH:MM.
- The maximum number of patients in each slot and a reserved capacity also need to be added.
- The slot time interval can be added here. So on this record, DAWN will create clinic slots of 1 minutes each from 8:00am to 3:00pm. Each five minute slot will have a capacity of 1 patient, with 1 reserved slot.
- A reserved capacity is used to deal with any extra patients who may come into the clinic. So DAWN will not automatically book patients into these reserved slots, but the user can use these extra slots if a clinic is full.
- You can specify which days you would like this slot template to apply to here.
- Click here to save the record

At the bottom, there are 'OK' and 'Cancel' buttons.

### 6.5.5 Saved Slot Template Form

Clinic ✕

You can optionally add more slots by clicking on the Slot Templates tab on the top left from this tab

Anticoagulation

Meadowside

The Hospital

Click here to add a new clinic adjustment

Slot Templates Adjustments Create/Delete Diary

Add a new record → 1 - 1 / 1

Start Time	End time	Max. cap.	Reserved cap.	Interval	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00	13:00	1	1	5 minutes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Your saved slot template will appear here

### 6.5.6 Adding/Editing Adjustments

Clinic ✕

Disease area Anticoagulation

Description Anticoagulation Ripon District Nurses

Organisation Dawn Hospital

Local Code B1

In Use ☒

Slot Templates Adjustments Create/Delete Diary

Add a new record

Click here to add adjustments

There are no items to display

## 6.5.7 Clinic Adjustment Form

The screenshot shows the 'DAWN' application interface for the 'ClinicSlotAdjustedCapacity' form. The form is titled 'Clinic: Anticoagulation Ripon District Nurses' and is for a 'New record'. The form fields include:

- Description**: A text input field.
- Start date**: A date input field with a calendar icon.
- End date**: A date input field with a calendar icon.
- Start Time**: A time input field.
- End time**: A time input field.
- %?**: A checkbox.
- Set new capacity**: A checkbox.
- Cap. adj.**: A text input field.
- Res.Cap. adj.**: A text input field.

Callouts provide additional information:

- Start date and End date**: The dates you would like the adjustment to be effective for can be added here. You can choose a particular date by clicking on the calendar icon to the right of these fields.
- Start Time and End time**: The time period in which you would like the adjustment to be valid can be added here in the format HH:MM.
- %?**: You can either express the clinic adjustment as a percentage of the original number of slots, ie, the record here will reduce the number of slots by 50%, or you can type in the exact number of slots that you want in this adjustment.
- Cap. adj. and Res.Cap. adj.**: Clinic adjustments can be used to either increase or reduce the number of available clinic slots on a particular day or period of time.
- Save button**: Click here to save this record.

The form has an 'OK' button and a 'Cancel' button at the bottom.

### 6.5.8 Saved Clinic Adjustment Form

The screenshot shows the 'Saved Clinic Adjustment Form' in the DAWN system. The top navigation bar includes 'DAWN', 'Patient', 'Lists', 'Calls', 'Reports', 'DAWN', 'Management', and 'Help'. The left sidebar has 'Clinic' and 'ClinicSlotTemplate' tabs. The main form area has the following fields:

- Disease area:** Anticoagulation
- Description:** Anticoagulation Ripon District Nurses
- Organisation:** Dawn Hospital
- Local Code:** B1
- In Use:** ☒

Below these fields are three tabs: 'Slot Templates', 'Adjustments', and 'Create/Delete Diary'. A yellow callout bubble points to the 'Create/Delete Diary' tab with the text: 'Click here to create the diary'.

Under the 'Adjustments' tab, there is a table with the following data:

Description	Start date	End date	Start Time	End time	%?	Cap. adj.	Res.Cap. adj.
Public holiday	25/12/2017	26/12/2017	08:00	17:00	<input type="checkbox"/>	0	0

### 6.5.9 Creating the Diary

The screenshot shows the 'Creating the Diary' form in the DAWN system. The top navigation bar and left sidebar are the same as in the previous screenshot. The main form area has the following fields:

- Disease area:** Anticoagulation
- Description:** Anticoagulation Ripon District Nurses
- Organisation:** Dawn Hospital
- Local Code:** B1
- In Use:** ☒

Below these fields are three tabs: 'Slot Templates', 'Adjustments', and 'Create/Delete Diary'. The 'Create/Delete Diary' tab is active.

Under the 'Create/Delete Diary' tab, there is a 'Legend' section with three items:

- 2017 - 49 Current week
- 2017 - 50 Week with appointments
- 2017 - 51 Week about to be deleted

Below the legend, there is a 'Last day in diary' section with the text 'No diary available'.

Below the 'Last day in diary' section, there are two dropdown menus:

- # of weeks to create:** Select...
- # of weeks to delete:** Select...

Below the dropdown menus, there are two buttons: 'Create diary' and 'Remove data from diary'.

There are three yellow callout bubbles:

- One pointing to the 'Create diary' button: 'Click here to create the diary for the next chosen number of weeks'.
- One pointing to the 'Remove data from diary' button: 'You can also delete the diary for a set number of weeks here'.
- One pointing to the 'Create/Delete Diary' tab: 'Once you have created your clinic diary, DAWN will automatically extend these diary slots into the future for you'.

A yellow callout bubble also points to the 'Legend' section: 'You can decide how many weeks you would like to create the diary for from the scroll down list here (the maximum option is 8 weeks)'.

**CAUTION** - avoid creating the diary for too many weeks in advance.

In normal running, DAWN will automatically extend the diary for you, ensuring you always have slots for the number of forthcoming weeks defined in the *Diary\_AutoCreateWeeksAhead* system setting. As a rule of thumb, set this to 4 weeks more than the maximum interval you would give a patient. If you don't usually allow patients to go more than 12 weeks without a test, make this setting 16; if you don't let patients go more than 6 weeks without a test, make it 10.

Likewise, if you manually extend the diary as shown above, avoid exceeding this number. Limiting how far the diary is extended into the future allows you more flexibility in changing your slot templates. New diary pages are based on your existing slot templates. If you change your slot templates, the changes are not reflected in the diary until new pages are created, existing pages still retain their original time slots.

The system setting *Diary\_WeeksToKeepInHistory* determines how many past weeks are retained in the diary. DAWN automatically deletes old diary pages, leaving just the number of weeks defined here. The diary only holds patient appointment times - the INR dates are held separately with the INR and dose. Unless you have a special requirement to report on past appointment times, keep this number as low as possible. Make it zero if you don't need to retain any past appointment times for reference.

Limiting how far ahead the diary is extended and how many past weeks are retained helps optimise system performance.

### 6.5.10 Clinic Diary Slots

**DAWN®**
Home
Patient
Lists
Calls
Reports
DAWN
Management

Clinic ×

**Disease area** Anticoagulation  
**Description** Dalton Square Surgery GP (S)  
**Organisation** Dawn Hospital  
**Local Code** S  
**In Use** ☒

Slot Templates
Adjustments
Create/Delete Diary

2017 - 47 12/11/2017 4 (20)	2017 - 48 19/11/2017 80 (118)	2017 - 49 26/11/2017 87 (118)	2017 - 50 03/12/2017 90 (118)	2017 - 51 10/12/2017 86 (118)	2017 - 52 17/12/2017 85 (118)	2017 - 53 24/12/2017 83 (118)	2018 - 1 31/12/2017 93 (118)
2018 - 2 07/01/2018 91 (118)	2018 - 3 14/01/2018 97 (118)	2018 - 4 21/01/2018 91 (118)	2018 - 5 28/01/2018 88 (118)	2018 - 6 04/02/2018 97 (118)	2018 - 7 11/02/2018 98 (118)	2018 - 8 18/02/2018 98 (118)	2018 - 9 25/02/2018 98 (118)
2018 - 10 04/03/2018 98 (118)							

Once the clinic is in use, any weeks with patient appointments will be highlighted in yellow

Your new clinic diary slots are displayed here broken down by weeks. You can optionally click on each block of slots to view them in more detail

**Legend:**

2017 - 49	Current week
2017 - 50	Week with appointments
2017 - 51	Week about to be deleted

**Last day in diary** 10/03/2018

**# of weeks to create** Select... Create diary

**# of weeks to delete** 2 old weeks Remove data from diary

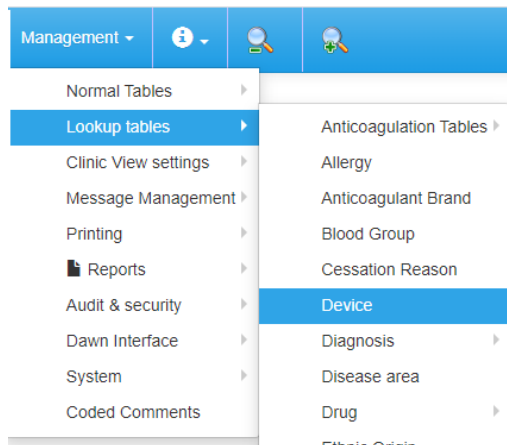
## 6.6 Adding Devices

If you employ point-of-care testing, DAWN may be the first place you capture the test result. If you also send the results on from DAWN to another system (such as a lab system or an electronic patient record) via an outbound interface, you may need to include info about the device or analyser used. DAWN allows you to setup a lookup table of devices and associate a device with a clinic as the default device for the clinic.

Adding a new device

Adding a New Clinic

### 6.6.1 Adding a new device



**DAWN**

Device ✕

Device Model Name

Device Identifier

Test Code Value

Notes

In Use ☒

You will need to save this new record before you can add related records

Once you have saved the new record and selected it as the default device for one or more clinics, the clinics appear here.

✓ OK ✕ Cancel

*Annotations:*

- You must specify a model name and identifier for the device. The identifier must be unique. The model name does not have to be unique as you may have several devices of the same model.
- Optionally enter a test code associated with the tests performed by the device and notes about the device itself.

## 6.7 Adding/Editing Healthcare Professional Types

If you need to add a type for a healthcare professional that does not exist in the standard list, new types can be added here.



Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Conditions of Use

By logging on to this system you have been deemed to have accepted the 10 following warnings and conditions of use:

1. Inadequate checking of Dose and Next Test Date instructions could lead to severe injury and death.
2. Check that all therapy instructions are appropriate before instructing a patient.
3. Check that you have a procedure in place to ensure rigorous follow up of non attendees and ensure that all patients have a next test date.
4. Interruptions to the operations of the software, e.g. Power failure, switching off, can lead to data corruption. This could lead to severe injury or death. Following any such interruption to operation, increase checking vigilance.
5. Read the Safety Section in the User Manual.
6. Ensure backup of your database using a multiple copy schedule.
7. Inform 4S DAWN Clinical Software immediately if you notice any anomalies within the data or experience anything within the system that appears not to be correct or not working correctly.
8. Keep yourself informed of any safety notices issued by 4S DAWN Clinical

Worklist

Patients with

No INR Today

Incomplete Visits

Missed Test

Active Treatment Plan

No next test date

Messaging

Messages Interface Email

Management

Normal Tables

Lookup tables

Clinic View settings

Message Management

Printing

Reports

Audit & security

Dawn Interface

System

Coded Comments

Anticoagulation Tables

Allergy

Anticoagulant brand

Blood Group

Cessation Reason

Diagnosis

Disease area

Drug

Ethnic Origin

Event

HC Professional Type

Intervention Timeslot

Language

LMWH drug

Messaging

Organisation Type

Procedure

Risk Management

Therapy Status

Visit Type

Click here to add or edit a Healthcare Professional type

## 6.7.1 List of Healthcare Professional Types

HC Professional Type

Description	DescriptionMulti	In Use
Consultant	Consultants	<input checked="" type="checkbox"/>
GP	GP's	<input checked="" type="checkbox"/>
District Nurse	Nurses	<input checked="" type="checkbox"/>
Pharmacist	Pharmacists	<input checked="" type="checkbox"/>
BMS	BMS	<input checked="" type="checkbox"/>
Clerical Officer	Clerks	<input checked="" type="checkbox"/>
Manager	Managers	<input checked="" type="checkbox"/>
IT	IT pros	<input checked="" type="checkbox"/>
Phlebotomist	Phlebotomist	<input checked="" type="checkbox"/>
LPN	LPNs	<input checked="" type="checkbox"/>
Nursing Home Manager	Nursing Home Managers	<input checked="" type="checkbox"/>

A list of existing Healthcare Professional types appear in a list. These fields are editable.

To delete a healthcare professional type, you can click on the Bin icon to the left of the record (please note - if the healthcare professional type is logged against a healthcare professional, then it cannot be deleted)

Click here on the New button to add a new healthcare professional type

New Save Print

### 6.7.2 Adding/Editing Healthcare Professional Type

The screenshot shows the 'DAWN' logo at the top left of a blue header bar. Below the header, there is a tab labeled 'HC Professional Type' with a close icon. The form contains three main sections: 'Description' with an orange input field, 'DescriptionMulti' with an information icon and a text area, and 'In Use' with a checkbox. Three yellow callout boxes provide instructions: one points to the 'Description' field stating it is mandatory and unique; another points to the 'In Use' checkbox stating it must be checked; and a third points to the 'OK' button at the bottom, stating to click it to save and return to the list. The bottom of the form has a blue bar with 'OK' and 'Cancel' buttons.

DAWN®

HC Professional Type ✕

Description

DescriptionMulti ⓘ

In Use ☒

You can add a healthcare professional type here. This field is mandatory, and must be unique.

The InUse box must be checked in order to use this healthcare professional type.

Click here on the OK button to save this record and return to the list of healthcare professional types

✓ OK ✕ Cancel

## 6.8 Adding/Editing Healthcare Professionals

Healthcare professionals can be added to the DAWN system and can optionally be set up with user accounts to access their patients. Once healthcare professionals have been added to the system they can be logged as a patient's referring GP, consultant, etc.

Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Conditions of Use

By logging on to this system you have been deemed to have accepted the 10 following warnings and conditions of use:

1. Inadequate checking of Dose and Next Test Date instructions could lead to severe injury and death.
2. Check that all therapy instructions are appropriate before instructing a patient.
3. Check that you have a procedure in place to ensure rigorous follow up of non attendees and ensure that all patients have a next test date.
4. Interruptions to the operations of the software, e.g. Power failure, switching off,

Worklist

Patients with

No INR Today

Incomplete Visits

Missed Test: 2, 117

Active Treatment Plan: 2, 630

No next test date: 0, 28

Management menu options:

- Normal Tables
- Lookup tables
- Clinic View settings
- Click here to add a Healthcare Professional
- Reports
- Audit & security
- Dawn Interface
- System
- Coded Comments
- Clinic
- Clinic-diary
- General Lookup Category
- HCPProfessional**
- Health Authority
- LoginLog
- Organisation
- Patient Group
- Questionnaire Type
- Reference Range
- Team
- Test
- Test Alias
- Test Group
- Therapy Template
- Trial
- Ward

An Organisation must be created before a healthcare professional can be added.

## 6.8.1 List of Healthcare Professionals

HCPProfessional

Search Q

Search for:

Organisation: [Dropdown] Role: [Dropdown] Last name: [Text] First name: [Text] User: [Text]

Click on the form icon beside each record to show HCPProfessional details

You can optionally search on any of these fields

Organisation	Role	Last name	First name	Initials	In Use
11 SHEEN COURT	GP	McGroarty	Feargal	C	<input checked="" type="checkbox"/>
11 SHEEN COURT	BMS	Seal	John	JS	<input checked="" type="checkbox"/>
14 IMPERIAL AVENUE	GP	Perry	V U	P	<input checked="" type="checkbox"/>
18 DEBADALE HOUSE	GP	Mark	Alexandra	B	<input type="checkbox"/>
21 STILEMAN HOUSE	GP	Heritage	V I	H	<input checked="" type="checkbox"/>
21 STILEMAN HOUSE	GP	Hughes	G A	H	<input checked="" type="checkbox"/>
21 STILEMAN HOUSE	GP email contact	Jack	lisa.jones@bfwhospitals.nhs.uk	G	<input checked="" type="checkbox"/>
21 STILEMAN HOUSE	GP	Miah	T D	M	<input checked="" type="checkbox"/>
21 STILEMAN HOUSE	GP	Rosindale	X A	R	<input checked="" type="checkbox"/>
21 STILEMAN HOUSE	District Nurse	Smith	Paul	PS	<input checked="" type="checkbox"/>
21 STILEMAN HOUSE	GP	Trainer	F R	T	<input checked="" type="checkbox"/>
25 ALEXANDER ROAD	GP	Man	A		<input checked="" type="checkbox"/>
25 LUTWORTH CRESCENT	GP	Alli	Z B	A	<input checked="" type="checkbox"/>
25 LUTWORTH CRESCENT	GP	Bliss	B	BB	<input checked="" type="checkbox"/>

Click here to add a new HCPProfessional

Down New Save Print

## 6.8.2 Adding/Editing Healthcare Professional Details

HCPProfessional ✕

(New record)

Organisation (Make a choice) ▾

Role (Make a choice) ▾

Last name

First name

Initials

In Use ☒ The in use box must be checked to use this record

Address info Teams Account info Notes Patients

Title Click on the account info tab to create a user account for this healthcare professional

National Number

Local Number

Direct Telephone

Mobile

Email

Direct Fax

Messaging method: E-mail ▾

The healthcare professional's details can be added here.

A valid email address must be entered if this HCPProfessional is to have a user account.

The messaging method determines how the healthcare professional receives written messages, e.g. by email, by SMS, or by mail (printed hard copy).

If you choose a method that relies on a particular contact detail (e.g. an email requires an email address, phone requires a phone number), you are prevented from saving the record, if you have not entered the relevant contact detail. In other words you cannot select SMS if you have not entered a mobile number.

If you select phone, the healthcare professional will be phoned with any messages that can be sent either by phone or written. However, you must also select how they receive messages that can only be sent by a written method (e.g. "Phone (written by email)").

### Email with PDF attachment

**IMPORTANT:** *email with PDF attachment* is more robust choice for messages which risk being misinterpreted if they are formatted badly. Dosing instructions are a prime example. With simple email, the content is placed in the body of the email and relies on the recipient's email client to format the content correctly. Some clients may be more reliable than others. With *email with PDF attachment*, the content is saved to a PDF file (which will display the same way on any computer) and attached to a covering email.

## Can Also Receive Messages By:

When you first add a new record, the *Can Also Receive Messages By* section does not include any options except *Mail*. As you add different contact details such as email address, phone numbers, or fax numbers, check boxes appear for additional messaging options such as email, phone, fax or SMS. Checking one or more of these options means the recipient can receive messages that are configured to be sent only by that means. For example, checking the SMS box ensures the healthcare professional can receive SMS (only) messages (even if their main messaging method is something else).

See Adding a New Message Event for details on how to set up SMS (only), Email (only), Phone (only) ...etc messages.

### 6.8.3 Adding/Editing Healthcare Professional Account Information

HCPProfessional ✕

(New record)

Organisation	The Hospital
Role	Pharmacist
Last name	Brown
First name	Mary
Initials	
In Use	<input checked="" type="checkbox"/>

Notes can optionally be added into the Notes tab

Address info Teams Account info Notes Patients

A user name needs to be added. This user name will be used to log into DAWN.

User

Click here to set a new password for the HCPProfessional

Click to create a new password for user

Password Expires

Failed logins

Failed logins (all)

Locked

This checkbox indicates whether the account is 'locked' and therefore used or not.

Last login date

Total logins

User Profile

(None selected)

Network Login

A network name can optionally be added here. This can be used when using Windows authentication type login.

A password expiry date is populated. This ensures that the user will change their password on logging into DAWN so that this information remains confidential.

The failed login count gives the total number of failed logins logged so far for the user. A user can only attempt to log in three times before being 'locked out' of the system if the user name or password is incorrect.

A user profile needs to be specified for the hcpprofessional. This will affect which areas of DAWN the user can and cannot access/amend.

### 6.8.4 Adding Healthcare Professional Password

The screenshot shows the 'Brown Mary' user profile in the DAWN system. The form includes fields for 'The Hospital', 'Pharmacist', 'Brown', and 'Mary'. A message box states: 'The password for user 'Mary' has been set to: zcu7r3'. A yellow callout explains: 'A random password is generated for your new record. This can be used along with the user name to log into DAWN.' Another yellow callout says: 'This password can be changed by the HC Professional at the DAWN login screen.' An 'OK' button is highlighted with a yellow callout: 'Click here on the OK button to return to the list of HC Professionals'. Below the form, there are tabs for 'Teams', 'Account info', 'Notes', and 'Patients'. The 'Account info' tab is active, showing a 'Click to reset existing password for user' button, a date field '26/11/2017', and a numeric field '0'.

## 6.9 Adding/Editing User profiles

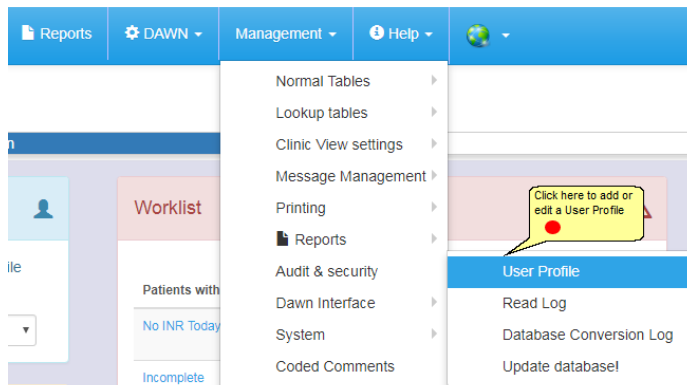
Several User Profiles can be configured in DAWN and applied to different Healthcare Professionals. Some users require read-only access while others will need to edit certain values in DAWN.

See also the Personal Settings on the Front Screen of DAWN - each user can further modify their own access to parts of the DAWN system.

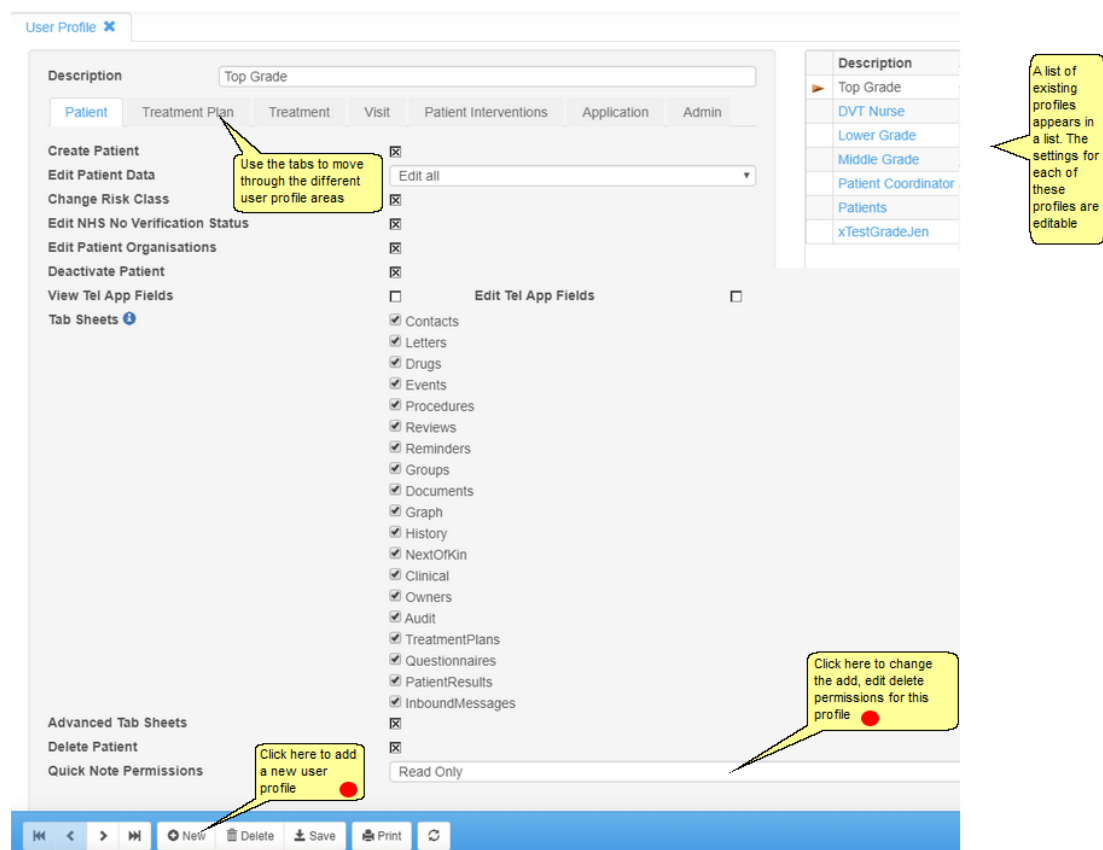


**If there are multiple application areas on one database, when creating or amending user profiles, ensure the application area specific permissions have been set on the individual user profiles.**

**Failure to do this could result in users not being able to see all the relevant patient information, eg. treatment plans etc.**



### 6.9.1 Viewing and Editing Existing User Profiles





## 6.9.2 Adding a New User Profile

User Profile ✕

You need to add a user profile name here.

Description: Trainee

Patient Treatment Plan Treatment Visit Patient Intervention Intervention Admin

**Create Patient** ☒

**Edit Patient Data** ☒ Edit all

**Change Risk Class** ☒

**Edit NHS No Verification Status** ☒

**Edit Patient Organisations** ☒

**Deactivate Patient** ☐

**View Tel App Fields** ☐ **Edit Tel App Fields** ☐

**Tab Sheets** ⓘ

- ☒ Contacts
- ☒ Letters
- ☒ Drugs
- ☒ Events
- ☒ Procedures
- ☒ Reviews
- ☒ Reminders
- ☒ Groups
- ☒ Documents
- ☒ Graph
- ☒ History
- ☒ NextOfKin
- ☒ Clinical
- ☒ Owners
- ☐ Audit
- ☒ TreatmentPlans
- ☒ Questionnaires
- ☐ PatientResults
- ☐ InboundMessages

**Advanced Tab Sheets**

**Delete Patient**

**Quick Note Permissions**

☐ Add New Only

The Allow Edit Patient Data setting determines whether the user can edit all of the patient information, the contact information only, or none at all.

The patient section of the form allows you to configure permission settings such as: Is the user allowed to create a patient? Is the user allowed to edit patient data? Which tabs on the main patient screen is the user allowed to view?

Should the user be able to edit Quick Notes? ☒

**Description**

**Create Treatment Plan** ☐  
**Edit Treatment Plan Test Limits** ☐  
**Activate And Edit Treatment Plan** ☐  
**Suspend Stop Treatment Plan** ☐  
**Admit Discharge Treatment Plan** ☐  
**Delete Treatment Plan** ☐  
**Edit Patient Therapy Phase**

**Schedule Treatment**   
**Unschedule Treatment**   
**Enter And Accept INR**   
**DNA Treatment**   
**Accept Dose**   
**Authorise Dose**   
**Authorise Manual/Bridging Treatment** ☒  
**Reset Treatment**   
**Add/Edit Treatment Records** ☐  
**Customise Dose Instructions** ☐

**Edit Visit**   
**Schedule Visit**   
**Unschedule Visit**   
**DNA Visit**   
**Close Visit**   
**Delete Visit** ☐

This is the treatment plan section. You can specify here whether the user can create a treatment plan, edit the treatment plan, etc. To allow the user to carry out an action, click in the check box so that it is

This is the treatment section. These fields determine which risk class of patient the user can carry out each action for. For example, if the 'schedule treatment' action is set as 'High', then the user can schedule treatment for high risk patients, as well as medium and low risk. If it is set to 'low', then the user can only carry out the action on low risk patients.

This determines which users are permitted to authorise Manual/Bridging doses. When this option is checked the user can authorise Manual/Bridging patients up to the risk class level defined by the settings above.

These settings refer to different application areas within Dawn, such as Rheumatology. If anticoagulation is the only area that is used then these settings can be left unselected. If other application areas are being used, then these settings will determine who is able to schedule and DNA a visit as well as who is able to add and edit patient results.

Patient	Treatment Plan	Treatment	Visit	Patient Interventions	Application	Admin
---------	----------------	-----------	-------	-----------------------	-------------	-------

Edit Patient Intervention

(None selected) ▼

Add Patient Intervention

(None selected) ▼

Suppress Patient Intervention

(None selected) ▼

Patient	Treatment Plan	Treatment	Visit	Patient Interventions	Application	Admin
---------	----------------	-----------	-------	-----------------------	-------------	-------

Management Menu

☐

Reports

☐

Edit Reports

☐

Message Center

☐

Clinic View

☐

Clinic Diary

☐

Front Screen Tallies

☐

Patient	Treatment Plan	Treatment	Visit	Patient Interventions	Application	Admin
---------	----------------	-----------	-------	-----------------------	-------------	-------

View All Organisations

☐

User Management

☐

Maintain User Profiles

☐

Maintain Dosing Engine Tables

☐

Maintain System Tables

☐

Maintain Medical Lookup Tables

☐

Maintain Organisation Tables

☐

System Tools

☐

View Audit Tables


☐

Monitor Screens

☐

### Disease Areas

→ 1 - 1 / 1

Disease area	Allow Access	Edit Treatment Plan Medical Data
 Anticoagulation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Users can be given certain permissions in different applications of the system here. To add a new application area, you can click on the Form icon to the top left of this box.

### Healthcare Professionals With This Profile

There are no items to display

Once the user profile is in use, the healthcare professionals with this user profile are displayed here.

OrderNr

The order number determines where the user profile will appear in a list.

In Use ☒

The InUse box must be checked in order to use this user profile

Click here on the OK icon to save this user profile and return to the list of user profiles.

#### 6.9.2.1 Editing / Deleting Quick notes

Quick Note Permissions

Select whether a user with this profile can add, edit or delete Quick Notes or just read them.

### 6.10 Adding/Editing Patient Groups (Optional)

Patient groups are used to group together a subset of patients for use in reporting, list views, research purposes, etc. Patient groups are not a mandatory section to be filled in within DAWN.

Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Conditions of Use

By logging on to this system you have been deemed to have accepted the 10 following warnings and conditions of use:

1. Inadequate checking of Dose and Next Test Date instructions could lead to severe injury and death.
2. Check that all therapy instructions are appropriate before instructing a patient.
3. Check that you have a procedure in place to ensure rigorous follow up of non attendees and ensure that all patients have a next test date.
4. Interruptions to the operations of the software, e.g. Power failure, switching off,

Worklist

Patients with

No INR Today

Incomplete Visits

Missed Test: 2, 117

Active Treatment Plan: 2, 630

No next test date: 0, 28

Management menu items:

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Dawn Interface
- System
- Coded Comments
- Clinic
- Clinic-diary
- General Lookup Category
- HCPProfessional
- Health Authority
- LoginLog
- Organisation
- Patient Group**
- Questionnaire Type
- Reference Range
- Team
- Test
- Test Alias
- Test Group
- Therapy Template
- Trial
- Ward

Click here to add a new patient group.

### 6.10.1 List of Patient Groups

Patient Group

Description	Organisation	In Use
Audit	Dawn Hospital	<input checked="" type="checkbox"/>
PTS Audit	Dawn Hospital	<input checked="" type="checkbox"/>
DNA DISCLAIMER	Dawn Hospital	<input checked="" type="checkbox"/>
Self tester	Dawn Hospital	<input checked="" type="checkbox"/>
Audit	Dawn Hospital	<input checked="" type="checkbox"/>

You can click on the Form icon to the left of these patient groups to display the details.

A list of existing patient groups is displayed in a list. The patient group description field is editable.

Click here on the New button to add a new patient group

Navigation buttons: Previous, Next, Down, New, Save, Print

### 6.10.2 New Patient Group Form

The screenshot shows the 'New Patient Group' form in the DAWN system. The form has a blue header with the 'DAWN' logo and a globe icon. Below the header, there's a tab labeled 'Patient Group' with a close icon. The form contains two input fields: 'Description' (empty) and 'Organisation' (set to 'Dawn Hospital'). A message states: 'You will need to save this new record before you can add related records'. Below this, there's an 'In Use' checkbox which is checked. At the bottom, there are 'OK' and 'Cancel' buttons. Callouts provide additional information: 'Once this record is in use, the patients belonging to this group will be displayed in this box.' points to the main form area; 'The Organisation that the user is logged against will automatically be populated here.' points to the 'Organisation' field; 'The In Use check box must be checked in order to use this patient group.' points to the 'In Use' checkbox; and 'Click here on the OK button to save this record and return to the list of patient groups.' points to the 'OK' button.

### 6.11 Adding/Editing Teams

Different teams can be set up within the system so that healthcare professionals can belong to a particular team within DAWN, e.g., Anticoagulation Nurses, Rheumatology Nurses. Healthcare professionals can belong to more than one team at a time.

List views can be used to filter patients by particular teams.

The screenshot shows the DAWN system interface. The top navigation bar includes 'Lists', 'Calls', 'Reports', 'DAWN', 'Management', 'Help', and a globe icon. The 'Management' menu is open, displaying a list of options: Normal Tables, Lookup tables, Clinic View settings, Message Management, Printing, Reports, Audit & security, Dawn Interface, System, Coded Comments, Clinic, Clinic-diary, General Lookup Category, HCProfessional, Health Authority, LoginLog, Organisation, Patient Group, Questionnaire Type, Reference Range, Team (highlighted), Test, Test Alias, Test Group, Therapy Template, Trial, and Ward. A callout bubble points to the 'Team' option with the text 'Click here to add a new team'.

### 6.11.1 List of teams

The screenshot shows the 'Team' configuration page in the DAWN system. The top navigation bar includes 'DAWN', 'Patient', 'Lists', 'Calls', 'Reports', 'DAWN', 'Management', 'Help', and a globe icon. The 'Team' tab is selected. Below the navigation bar is a search bar with the text 'Search for: Name'. Below the search bar is a table of existing teams.

Organisation	Name	In Use
Dawn Hospital	Team A	<input checked="" type="checkbox"/>
Dawn Hospital	Team B	<input checked="" type="checkbox"/>
Dawn Hospital	DVT team	<input checked="" type="checkbox"/>
Dawn Hospital	Haematology team	<input checked="" type="checkbox"/>

At the bottom of the page, there is a 'New' button to add a new team. A callout bubble points to the 'New' button with the text 'Click here to add a new team'.

### 6.11.2 Choosing a New Team Organisation

**DAWN** | Home | Patient | Lists | Calls | Reports | Help

Team x

Please select a Organisation for the table Team

You can pick an organisation which this team belongs to.

NOTE - although you specify an organisation here, healthcare professionals belonging to another organisation can also be added to this team

(None selected)

- Alegent Health
- The Hospital
- ST JOHNS MEDICAL CENTRE
- St James Hospital
- 11 SHEEN COURT
- 18 DEBADALE HOUSE
- Dethick Court Practice
- 98 CLOSEFIELD GROVE
- 26 DALEACRE
- HOUSE
- CENTRE

Click here to choose an organisation

OK Cancel



### 6.11.3 Adding a New Team

Team ✕

Organisation

The Hospital

Name

Notes

In Use

☒

You will need to save this new record before you can add related records

Once the record has been saved, healthcare professionals can be added to this new team. This can be done either from this screen, or within the Team tab on a healthcare professional record.

Click here to save the record and look at how this filter can be used on a list view

✓ OK

✕ Cancel

Team notes can optionally be added here

You need to add a team name here

### 6.11.4 List View Team Filter

Team X List View X

Worklist Annual Review Hold M

Post Clinic Check Status No N

**Filter**

6 records found.

**Type**

**In Range**

**Type**

ADAMS, Mary

ADAMSON, Fred

BOOTH, Raymond

TARGARYEN, Daenerys

Once new teams have been added into the system, you are able to filter patients by a particular team here

Please note - if you would like to use the list views to filter on particular teams, then please contact the 4S support team who will help you to set this up

TIP - If you do not wish to include this team filter on your list views, then this can be removed by unchecking the 'Show Team Filter' box within the list view set up screen

## 6.12 Adding/Editing Personal Settings

DAWN Personal Settings are user specific and can be used to determine which tabs and screens the user will and will not view within the system.

DAWN®

Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Conditions of Use

Change Password

Personal settings

Printing location

Log Out

Click here to configure the user's personal settings

Patients with	Induction	Maintenance	Manu Bridg
No INR Today	0	6	
Incomplete Visits	0	5	
Missed Test	1	429	

### 6.12.1 Personal Settings Form

Personal settings x HCPProfessionalDefaultClinicApplicationArea x

Hide these tabs on the Patient screen

PLEASE NOTE: You are advised not to suppress these notifications in case incorrect or missing messages are not noticed.

Select this tab first

Don't tell me when letters/emails are sent

Don't tell me about red question mark alerts

Units for Patient Height

Units for Patient Weight

Allow Customising of Dose Instructions

☐ Contacts  
☐ Letters  
☐ Drugs  
☐ Events  
☐ Procedures  
☐ Reviews  
☐ Reminders  
☐ Groups  
☐ Documents  
☐ Graph  
☐ History  
☐ NextOfKin  
☐ Clinical  
☐ Owners  
☐ Audit  
☐ TreatmentPlans  
☐ Questionnaires  
☐ PatientResults  
☐ InboundMessages

You can check the boxes to prevent these tabs showing on the main patient screen

Select an option from the list to choose the tab to default to on the patient screen

History

Set your own preference for displaying height and weight in metric or imperial

Add a new record → Select Default Clinic for each Module

Disease area	Clinic
Anticoagulation	Dalton Square Surgery GP (S)

Navigation: [Back] [Forward] [New] [Save]

### 6.13 Adding/Editing Risk Classes

A risk class can be chosen for a patient to indicate what their risk level is, e.g., high risk, low risk. This risk class appears on the top left of the main patient screen.

DAWN Management Help

Worklist

Patients with

No INR Today

Incomplete V

Missed Test 1 429

Active Treatment Plan 3 634

No next test date 0 35

Messaging

Messages Interface Email

Waiting to be sent 5 0

Anticoagulation Tables

Allergy

Anticoagulant Brand

Blood Group

Cessation Reason

Diagnosis

Disease area

Drug

Ethnic Origin

Event

HC Professional Type

Intervention Timeslot

Language

LMWH drug

Messaging

Organisation Type

Risk

Risk Class

Severity

Warn Level

Click here to add/edit risk classes

Database

Database name

DawnAC

Patient Licen

Total

1000

Inbound Inter

### 6.13.1 List of Risk Classes

The screenshot shows the 'Risk Class' management interface in the DAWN system. The interface includes a table of existing risk classes and a 'New' button to add a new one. Callouts provide instructions on how to use the interface:

- Click on the bin icon and then save to delete this record**: Points to the delete icon in the 'Low' risk class row.
- The risk class is set to order the risk classes - these**: Points to the 'Risk Level' column.
- Colour coding can be set for each risk class. eg, high risk can be displayed in red**: Points to the 'Color Code' column.
- Click here to add a new risk class**: Points to the 'New' button.
- Uncheck this box to remove the risk class from the available options**: Points to the 'In Use' checkbox for the 'Non-compliant' risk class.
- Check this box to include patients with this risk class in priority groupings in list views and reports**: Points to the 'Treat as Priority' checkbox for the 'High' risk class.

Risk Class	Risk Level	Color Code	Manual Review Only	Treat as Priority	In Use
Low	0		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Review	10	#EE9A49	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Medium	15	#FFE0E0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pharmacist call Phone	30		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Non-compliant	95		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LMWH	97	#1aff1a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
New patient	98		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Paediatric Patient	99	FFFF00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
High	100	#FF0000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### 6.13.2 Adding a new risk class

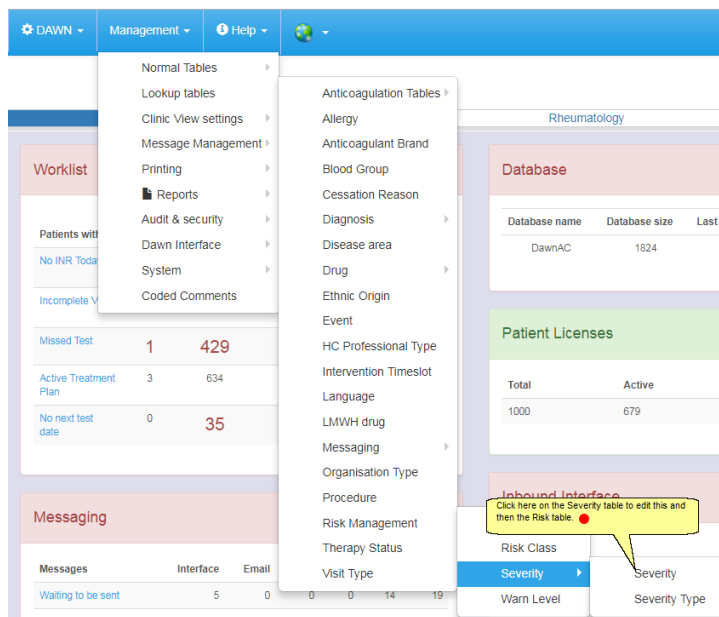
The screenshot shows the 'Add New Risk Class' form in the DAWN system. The form includes fields for Description, Risk Level, Color Code, and checkboxes for Manual Review Only, Treat as Priority, and In Use. Callouts provide instructions on how to use the form:

- Enter a description for the new risk class**: Points to the 'Description' field.
- Enter a risk level for the new risk class**: Points to the 'Risk Level' field.
- Check this box to include patients with this risk class in priority groupings in list views and reports**: Points to the 'Treat as Priority' checkbox.
- Add a colour (optional)**: Points to the 'Color Code' field.
- Click here to save the new risk class and return to the list**: Points to the 'OK' button.

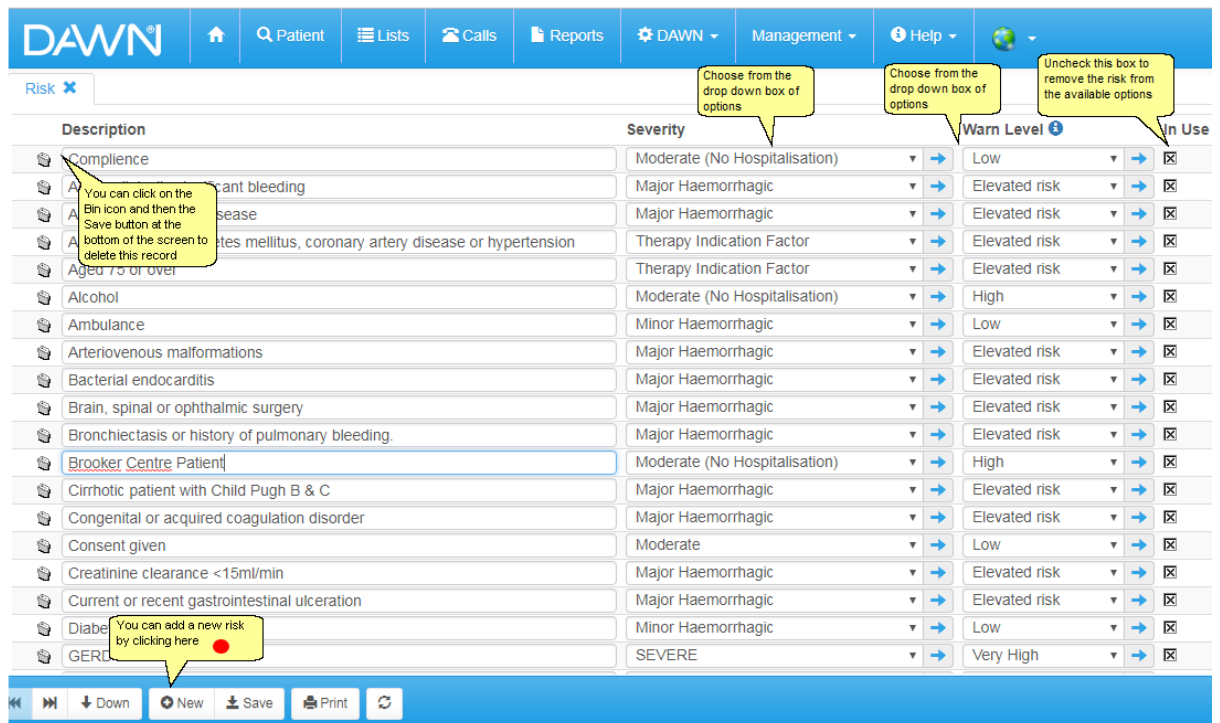
## 6.14 Adding/Editing Severities

There are 2 steps involved in configuring the Patient Risks :

- Set Severity for Risk
- Set Risk



### 6.14.1 List of severities

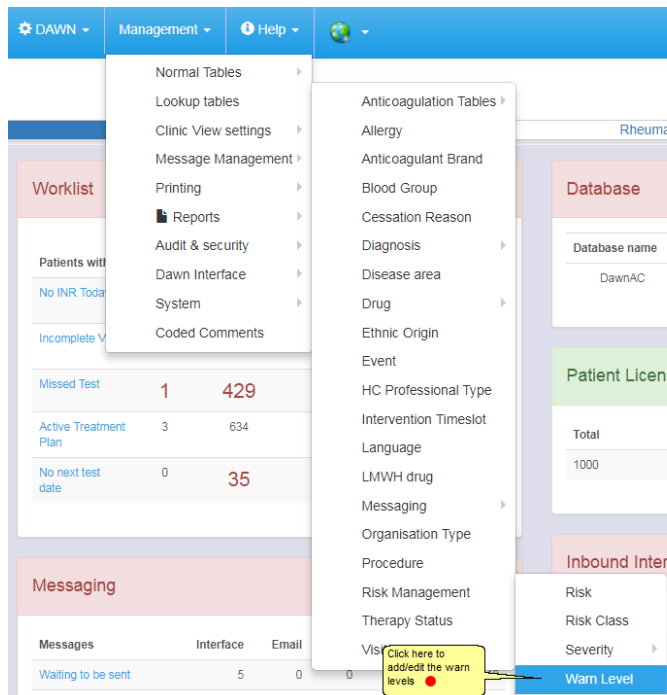


### 6.14.2 Adding a New Severity Setting

The screenshot shows the DAWN application interface for managing severity settings. The top navigation bar includes the DAWN logo and links for Patient, Lists, Calls, Reports, DAWN settings, Management, and Help. The 'Severity' tab is active, displaying a message: 'Please select a SeverityType for the table Severity'. Below this is a search bar with a magnifying glass icon. A yellow callout bubble points to the search bar with the text 'Double click to set the severity type'. Below the search bar is a list of severity types: Risk, Drug, Allergy, and Event. The bottom section of the interface shows a table with columns: Description, Order, and In Use. A yellow callout bubble points to the 'Description' column with the text 'Enter a description and order number'. The 'Order' column shows the value '100'. The 'In Use' column has a checkbox that is currently checked. At the bottom, there are 'OK' and 'Cancel' buttons. A yellow callout bubble points to the 'OK' button with the text 'Click OK to save and return to a list of severities'.

### 6.15 Adding/Editing Warn Levels

If you need to add warn levels to drugs, events, etc that do not exist in the standard list, new warn levels can be added here.



### 6.15.1 List of WarnLevels

**DAWN®** [Home](#) [Patient](#) [Lists](#) [Calls](#) [Reports](#) [DAWN](#) [Manage](#)

Warn Level [×](#)

**Search** [Q](#)

Search for: WarnGroup [-All-](#) Name

Warning Image

**Drugs**

Name	Warn Level	Warning Image	Always Warn	In Use
Normal	3		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Always warn	10		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Warn	100		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Events**

Name	Warn Level	Warning Image	Always Warn	In Use
Not normal	1		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Not normal	2		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Not normal	3		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Always warn	10	IMAGES/EXCLAM/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Procedures**

Name	Warn Level	Warning Image	Always Warn	In Use
Normal	0		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor	1		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Always warn	11		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Major			<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Risks**

[⏮](#) [⏭](#) [↓ Down](#) [+ New](#) [↓ Save](#) [Print](#) [↺](#)

**Annotations:**

- These existing warn level fields are editable
- To delete a record, you can click on the Bin icon to the left of the row. If the record is already being used, then it cannot be deleted.
- All the different warn levels are grouped by table, eg, all warn levels belonging to drugs within the system are displayed under the 'Drugs' section
- Click here to add a new Warn Level

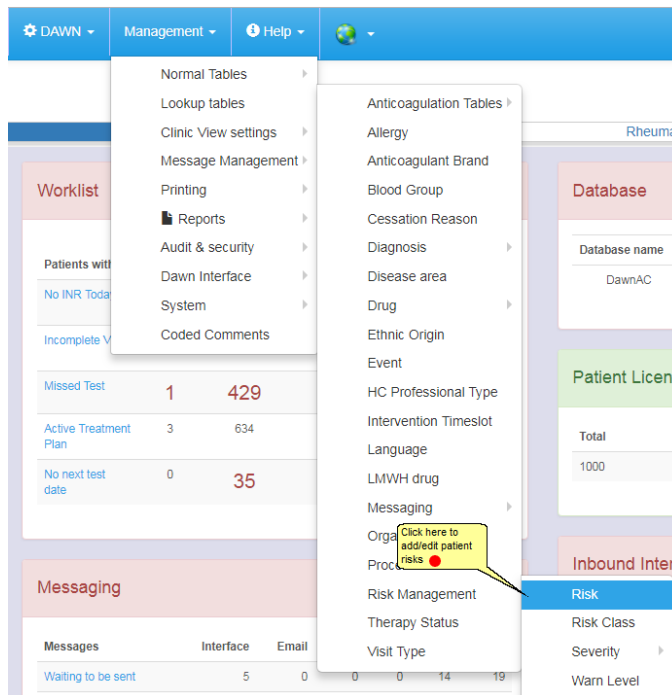


### 6.15.2 Adding a New WarnLevel

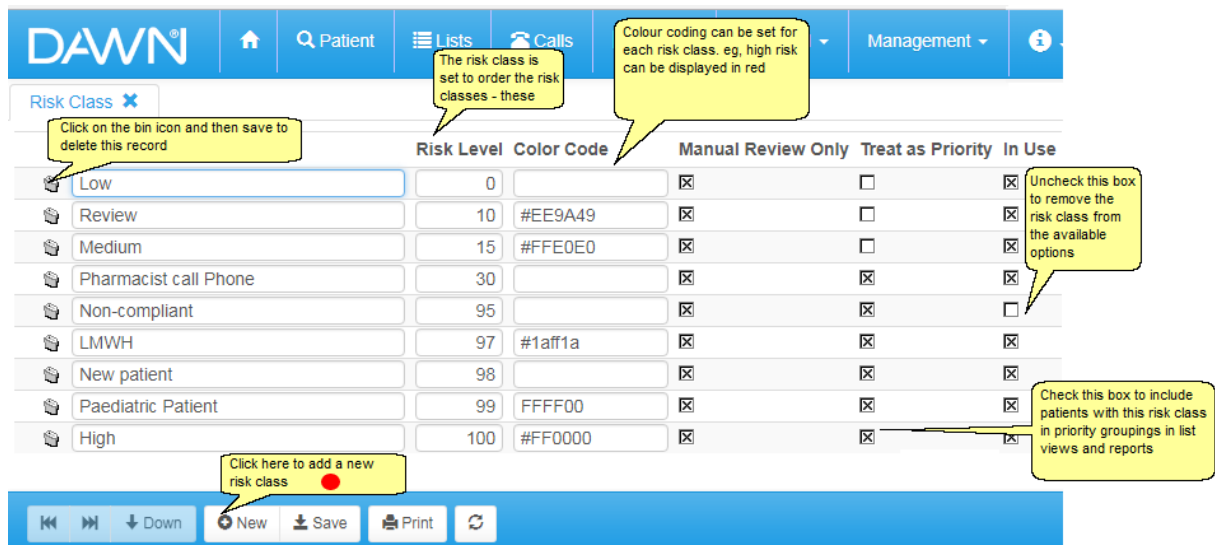
The screenshot shows the 'Warn Level' configuration form in the DAWN system. The form includes fields for 'WarnGroup', 'Name', 'Warn Level', 'Warning Image', 'Always Warn', and 'In Use'. A message at the bottom states: 'You will need to save this new record before you can use it.' The 'In Use' checkbox is checked. At the bottom are 'OK' and 'Cancel' buttons. Several yellow callout boxes provide instructions:

- WarnGroup:** A Warn group must be chosen for the Warn Level. This determines what the warn level will be used against, eg, drugs, events, etc.
- Name:** A warn level name needs to be added, and also a warn level number. This will determine in which order the levels appear in a list within the system.
- Warning Image:** A warning image can optionally be added here. This image will appear beside the warn level when chosen.
- Always Warn:** You can optionally tick the Always Warn checkbox. This will mean that if this warn level is chosen then the user will always be alerted to the drug, event, etc.
- In Use:** The InUse box must be checked in order to use this warn level.
- Buttons:** Click here on the OK button to save this record and return to the list of warn levels.

## 6.16 Adding/Editing Risk Settings



### 6.16.1 List of Risks



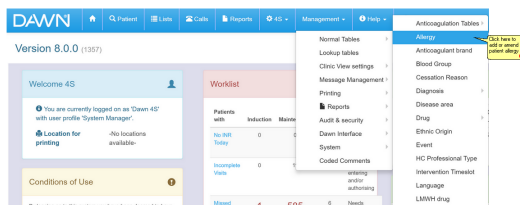
### 6.16.2 Adding a New Risk Setting

The screenshot shows the 'Risk' configuration form in the DAWN system. The form has a blue header with the DAWN logo and a globe icon. Below the header, there is a 'Risk' tab with a close button. The form contains the following fields and controls:

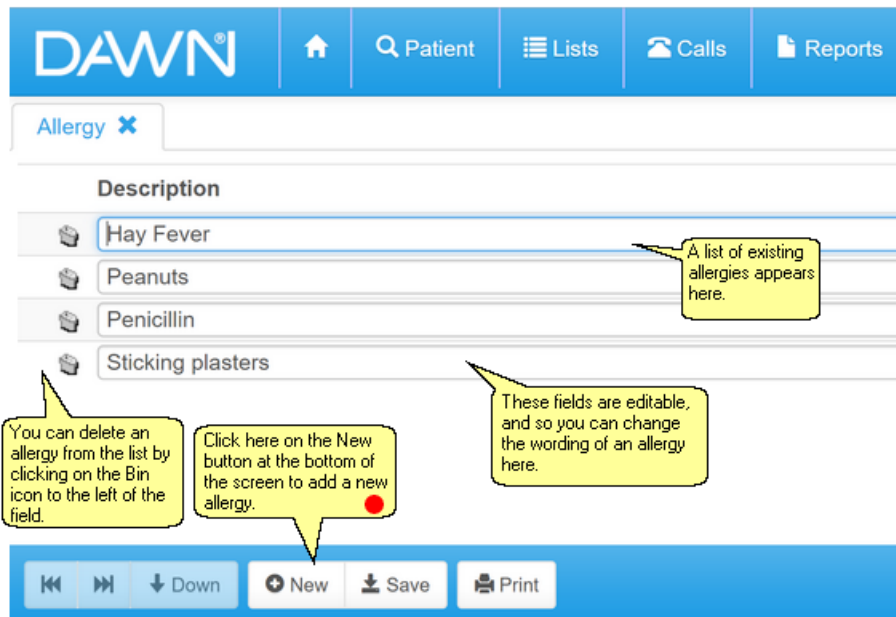
- Description:** A text input field with a callout 'Enter a description'.
- Severity:** A dropdown menu with a callout 'Enter a severity'.
- Warn Level:** A dropdown menu with a callout 'Enter a warn level'.
- In Use:** A checkbox with a callout 'Click OK to save and return to a list of risks'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

### 6.17 Adding/Editing Allergies

If you need to add an allergy that does not exist in the standard list, new allergies can be added here.



### 6.17.1 List of Patient Allergies



### 6.17.2 Adding a New Patient Allergy

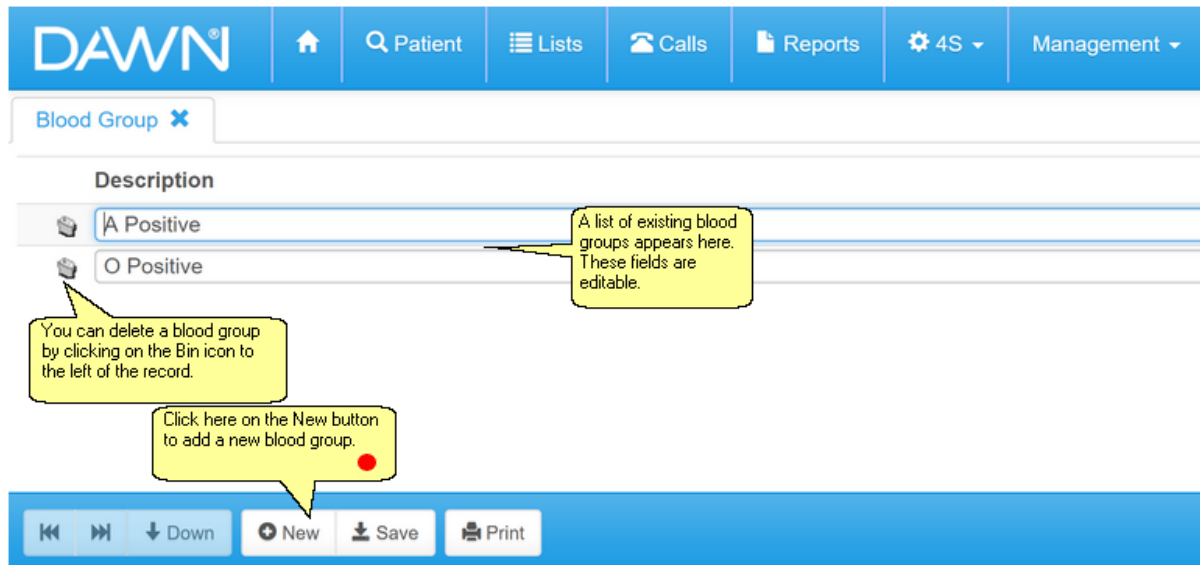
The screenshot shows the 'Allergy' configuration form in the DAWN system. The form has a blue header with the 'DAWN' logo and a globe icon. Below the header, there is a tab labeled 'Allergy' with a close button. The form contains two main input fields: 'Description' and 'In Use'. The 'In Use' field has a checkbox that is checked. At the bottom of the form, there are 'OK' and 'Cancel' buttons. Three callout boxes provide instructions: one pointing to the 'Description' field stating 'You can add an allergy name here. This field is mandatory and must be unique.', one pointing to the 'In Use' checkbox stating 'The InUse box must be checked in order to use this allergy.', and one pointing to the 'OK' button stating 'Click here on the OK button to save this new allergy and return to the list of allergies.'

## 6.18 Adding/Editing Blood Groups

If you need to add a blood group that does not exist in the standard list, new blood groups can be added here.

The screenshot shows the DAWN system interface. The top navigation bar includes the 'DAWN' logo, a home icon, and several menu items: 'Patient', 'Lists', 'Calls', 'Reports', '4S', 'Management', and 'Help'. The 'Management' menu is open, showing a list of options: 'Normal Tables', 'Lookup tables', 'Clinic View', 'Message', 'Printing', 'Reports', 'Audit & security', 'Dawn Interface', and 'System'. The 'Blood Group' option is highlighted. A callout box points to the 'Blood Group' option, stating 'Click here to add or amend a blood group'. The main content area shows a 'Welcome 4S' message and a 'Worklist' table. The 'Worklist' table has columns for 'Patients with', 'Induction', and 'Maintenance'. The 'Patients with' column shows 'No INR Today'.

### 6.18.1 List of Blood Groups

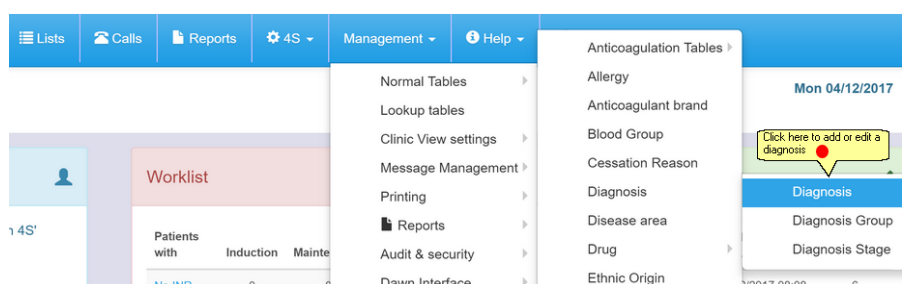


## 6.18.2 Adding a Blood Group

The screenshot shows the DAWN application interface for adding a blood group. The top bar is blue with the DAWN logo and a globe icon. Below it, a tab labeled "Blood Group" is active. The form has two main sections: "Description" and "In Use". The "Description" field is highlighted in orange, and a yellow callout bubble points to it with the text: "A blood group description can be added here. This field is mandatory, and must be unique." The "In Use" field has a checkbox that is currently checked. At the bottom of the form, there are two buttons: "OK" (with a checkmark icon) and "Cancel" (with an 'X' icon). A yellow callout bubble points to the "OK" button with the text: "Click here on the OK button to save this blood group and go back to the list of blood groups."

## 6.19 Adding/Editing Diagnoses

If you need to add a diagnosis that does not exist in the standard list, new diagnoses can be added here.



### 6.19.1 List of Diagnoses

**DAWN** | Home | Patient | Lists | Calls | Reports | 4S | Management | Help

Diagnosis X

Search

Description	Code Name	In Use	DiagnosisGroup	Diagnosis Stage	Relevant for
ACUTE BRONCHITIS		<input checked="" type="checkbox"/>	(None selected)	<input type="button" value="Add a new record"/> <a href="#">Diagnosis Stage</a>	<input type="checkbox"/> Anticoagulation <input type="checkbox"/> DOAC Monitoring <input type="checkbox"/> Gastroenterology <input type="checkbox"/> Haematology <input type="checkbox"/> Rheumatology <input type="checkbox"/> Rivaroxaban <input type="checkbox"/> Test Results
AF & CARDIOVERSION		<input checked="" type="checkbox"/>	Atrial Fibrillation	<input type="button" value="Add a new record"/> <a href="#">Diagnosis Stage</a>	<input type="checkbox"/> Anticoagulation

1-20 / 104

### 6.19.2 Adding a New Diagnosis

**DAWN** | Home | Patient | Lists | Calls | Reports | 4S | Management | Help

Diagnosis X

Description

Code Name

In Use ☒

DiagnosisGroup (None selected)

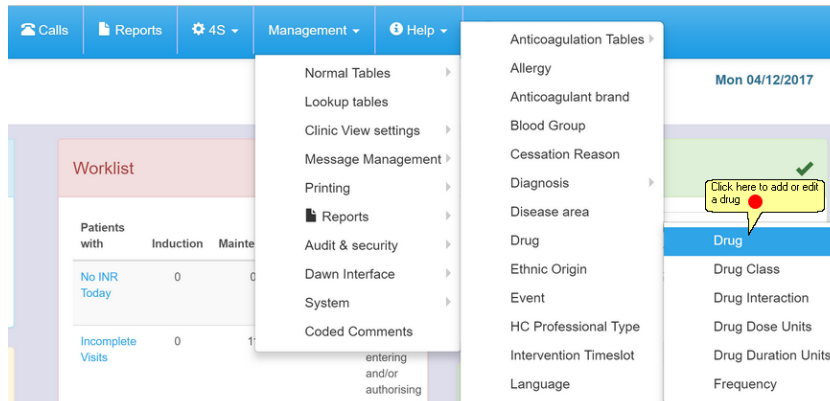
You will need to save this new record before you can add related records

Relevant for

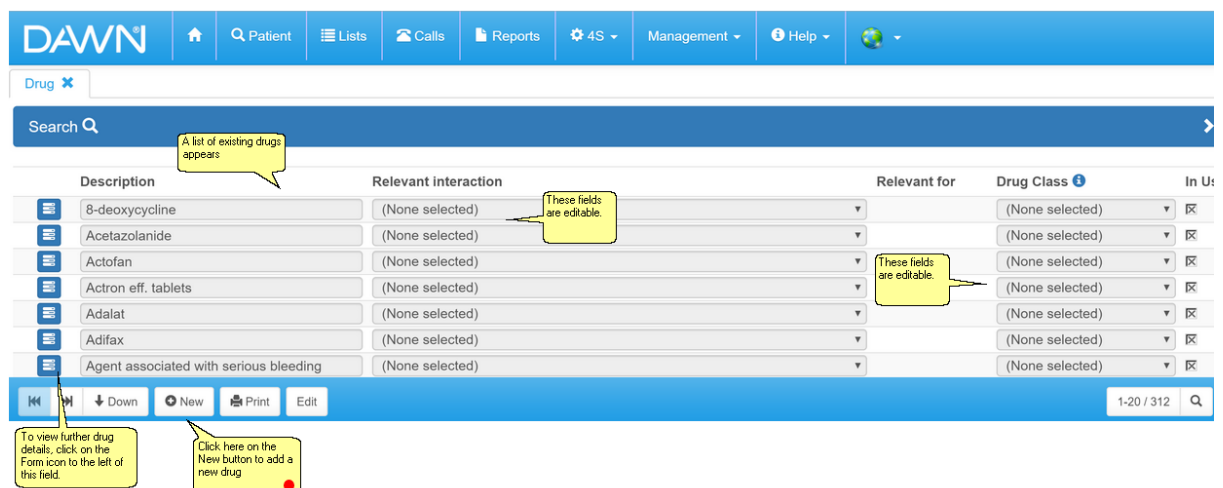


## 6.20 Adding/Editing Drugs

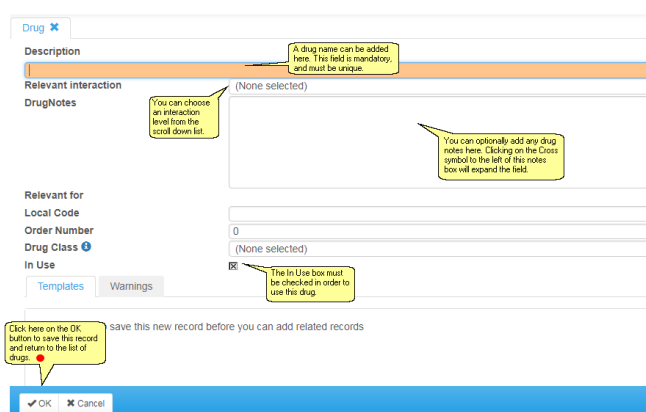
If you need to add a drug that does not exist in the standard list, new drugs can be added here.



### 6.20.1 List of Drugs



### 6.20.2 Adding a New Drug



### 6.20.3 Marking a drug as interacting

**DAWN** | Home | Patient | Lists | Calls | Reports | Brenda | Management | Info | Search | Add

Drug ✕ Warn Level ✕

**Description** Amiodarone

**Relevant interaction** Significant enhanced anticoagulation effect: Significant Select the interaction for a pre-defined list of interactions

**DrugNotes** <<Enhanced anticoagulation effect>> Edit the drug notes

**Relevant for**

- ☒ Anticoagulation Select the disease area/s
- ☐ DVT Assessment
- ☐ Haematology
- ☐ NOAC
- ☐ Rheumatology
- ☐ Rivaroxaban

**Local Code**

**Order Number** 0

**Drug Class** (None selected)

**In Use** ☒

**Warn Level** Normal Select the default warning level. Select always warn if appropriate for the drug

**WarningDuration** 28 Select the default duration of warning. This is the number of days you want the drug warning alert to be displayed on the drugs tab, if the warnig level is not always warn

Click here on the OK button to save this record and return to the list of drugs. OK

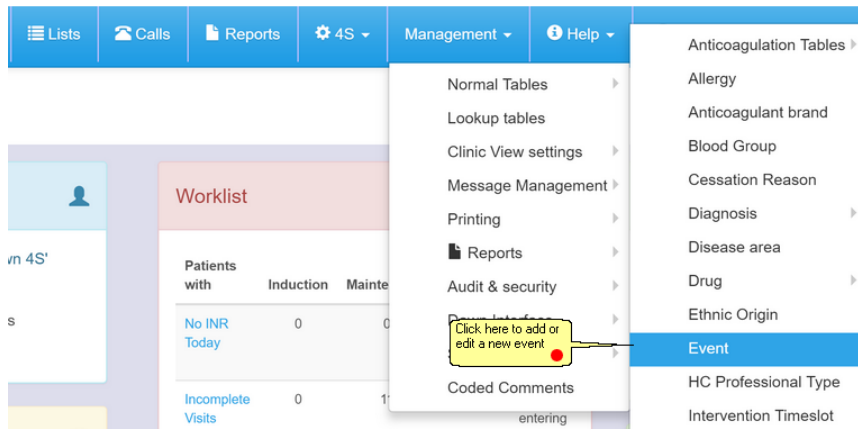
New Delete Save List Print Refresh 11 / 312

### 6.21 Adding/Editing Events

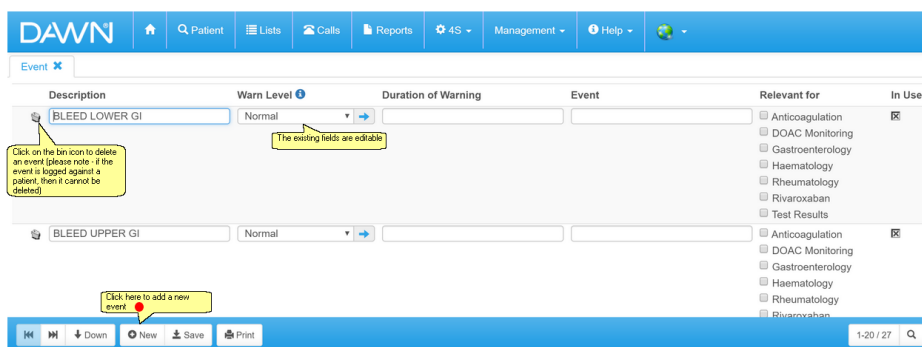
There are 2 steps involved in configuring the Events settings:

- Set Severity for Event
- Set the event

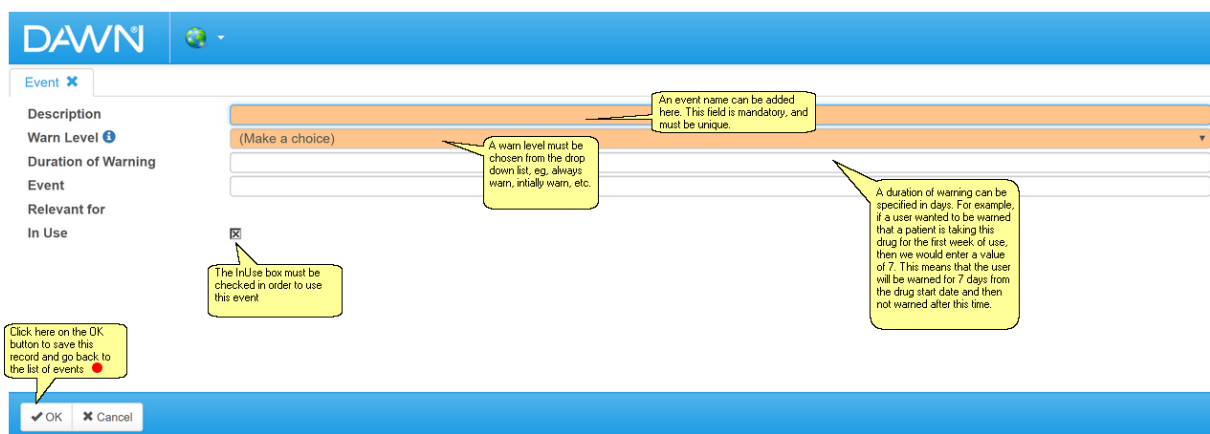
If you need to add an event that does not exist in the standard list, new events can be added here.



## 6.21.1 List of Events



## 6.21.2 Adding a New Event



## 6.22 Adding/Editing Procedures

If you need to add a procedure that does not exist in the standard list, new procedures can be added here.

Version 8.0.0 (1357)

Welcome 4S

You are currently logged on as 'Dawn 4S' with user profile 'System Manager'.

Location for printing: -No locations available-

Conditions of Use

By logging on to this system you have been deemed to have accepted the 10 following warnings and conditions of use:

1. Inadequate checking of Dose and Next Test Date instructions could lead to severe injury and death.
2. Check that all therapy instructions are appropriate

Worklist

Patients with	Induction	Maintenance	Needs rescheduling
No INR Today	0	0	
Incomplete Visits	0	1	
Missed Test	1	585	6
Active Treatment Plan	2	631	7

Management menu options:

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Dawn Interface
- System
- Coded Comments

Procedure management options:

- Anticoagulation Tables
- Allergy
- Anticoagulant brand
- Blood Group
- Cessation Reason
- Diagnosis
- Disease area
- Drug
- Ethnic Origin
- Event
- HC Professional Type
- Intervention Timeslot
- Language
- LMWH drug
- Messaging
- Organisation Type
- Procedure

Click here to add or edit a procedure

### 6.22.1 List of Procedures

Procedure

A list of existing procedures appear in a list. These fields are editable.

Description	Warn Level	Pre-Warn Duration	Post-warn Duration
Blood results checked	Normal	0	0
Blood test	Normal	0	0

To delete a procedure, you can click on the Bin icon to the left of the record (please note - if the procedure is logged against a patient, then it cannot be deleted)

Click here on the New button to add a new procedure

Navigation buttons: Previous, Next, Down, New, Save, Print

6.22.2 Adding a New Procedure

DAWN®

Procedure

Description

Warn Level (Make a choice)

Pre-Warn Duration0

Post-warn Duration0

Relevant for

In Use☒

A procedure name can be added here. This field is mandatory and must be unique.

A warn level needs to be chosen for this procedure, eg, initially warn, always warn, etc

The pre warn and post warn duration can be specified here in days. For example, if a user wanted to be warned of a patient's procedure for a week before the procedure date and two weeks after the procedure date, then the pre and post warn values would be 7 and 14.

The InUse box must be checked in order to use this procedure

OKCancel

Click here on the OK button to save the record and return to the list of procedures.

6.23 Adding/Editing Diagnosis Groups

If you need to add a diagnosis group for a diagnosis that does not exist in the standard list, new diagnosis groups can be added here.

DAWN®

HomePatientListsCallsReports4SManagementHelp

Version 8.0.0 (1357)

Welcome 4S

You are currently logged on as 'Dawn 4S' with user profile 'System Manager'.

Location for printing

No locations available-

Worklist

Patients with	Induction	Mainte
No INR Today	0	0

Normal Tables

Lookup tables

Clinic View settings

Message Management

Printing

Reports

Audit & security

Dawn Interface

System

Anticoagulation Tables

Allergy

Anticoagulant brand

Blood Group

Cessation Reason

Diagnosis

Disel

Drug

Ethnic Origin

Event

Mon 04/12/2017

Diagnosis

Diagnosis Group

Diagnosis Stage

2/2017 08:086

Click here to add a new diagnosis group

### 6.23.1 List of Diagnosis Groups

**DAWN®** | Home | Patient | Lists | Calls | Reports | 4S | Management | Help

Diagnosis Group X

Search Q

A list of existing diagnosis groups will appear. These fields are editable.

Name	Order
VTE	10
Atrial Fibrillation	20
Surgical	20

To delete a diagnosis group, you can click on the Bin icon to the left of the record (please note - if the diagnosis group is logged against a diagnosis, then it cannot be deleted)

Navigation: Previous, Next, Down, New, Save, Print

Click here on the New button to add a new diagnosis group

### 6.23.2 Adding a New Diagnosis Group

**DAWN®**

Diagnosis Group ✕

Name

Order

In Use ☒

You will need to save this new record before you can add related records

OK Cancel

Callouts:

- You can add a diagnosis group name here. This field is mandatory, and the name must be unique.
- An order number for the group must be specified here. This will determine what order each group will appear in when in a list.
- The In Use box must be checked in order to use this group.
- Once the record is in use, all the diagnoses that belong to this diagnosis group will appear in this box.
- Click here on the OK button to save this record and return to the list of diagnosis groups.

## 6.24 Adding/Editing Diagnosis Stages

If you need to add a diagnosis stage for a diagnosis that does not exist in the standard list, new diagnosis stages can be added here.

**DAWN®**

Version 8.0.0 (1357)

Welcome 4S

You are currently logged on as 'Dawn 4S' with user profile 'System Manager'.

Location for printing -No locations available-

Worklist

Patients with Induction Maintenance

No INR Today 0 0

Management

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Dawn Interface
- System

Anticoagulation Tables

- Allergy
- Anticoagulant brand
- Blood Group
- Cessation Reason
- Diagnosis
- Diagnosis Group
- Diagnosis Stage
- Ethnic Origin
- Event

Click here to add a new diagnosis stage

Mon 04/12/2017

2/2017 08:08 6



### 6.24.1 List of Diagnosis Stages

**DAWN®** | Home | Patient | Lists | Calls | Reports | 4S | Management

Diagnosis Stage ✕

Search 🔍

**- DVT NOT SPECIFIED**

Name	Order
 Acute	10
 Chronic	20

To delete a diagnosis stage, you can click on the Bin icon to the left of the record (please note - if the diagnosis stage is logged against a diagnosis, then it cannot be deleted)

Navigation: ⏪ ⏩ ⏴ Down ⏵ New ⏴ Save ⏴ Print

Click here on the New button to add a new diagnosis stage



### 6.24.2 Adding a New Diagnosis Stage

## 6.25 Adding/Editing Languages

If you need to add a language that does not exist in the standard list, new languages can be added here.

DAWN®

Version 8.0.0 (1357)

Welcome 4S

You are currently logged on as 'Dawn 4S' with user profile 'System Manager'.

Location for printing -No locations available-

Conditions of Use

Worklist

Patients with Induction Maintenance

No INR Today 0 0

Incomplete Visits 0 1

Missed 1 585 6 Needs

Management

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Dawn Interface
- System
- Coded Comments
- Anticoagulation Tables
- Allergy
- Anticoagulant brand
- Blood Group
- Cessation Reason
- Diagnosis
- Disease area
- Drug
- Ethnic Origin
- Event
- HC Professional Type
- Intervention Timeslot
- Language**
- LMWH drug

Click here to add/edit the languages

## 6.25.1 List of Languages

DAWN®

Language

Search

A list of existing editable language entries appears here.

Name	CodeName	OrderNr	In Use
English	ENG	0	<input checked="" type="checkbox"/>
Spanish	SPA	0	<input checked="" type="checkbox"/>
AFRIKAANS	AFR	1	<input checked="" type="checkbox"/>
ALBANIAN	ALB	2	<input checked="" type="checkbox"/>
AMHARIC	AMH	3	<input checked="" type="checkbox"/>
ARABIC	ARA	4	<input checked="" type="checkbox"/>
AYMARA	AYM	5	<input checked="" type="checkbox"/>
BENGALI	BEN	6	<input checked="" type="checkbox"/>
BULGARIAN	BUL	7	<input checked="" type="checkbox"/>

To delete a language, click on the Bin icon and then choose the Save button at the bottom of the screen

Click here on the New button to add a new language

New Save Print

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## 6.25.2 Adding a New Language

The screenshot shows the 'Add New Language' form in the DAWN system. The form has a blue header with the DAWN logo and a globe icon. Below the header, there is a 'Language' tab with a close button. The form contains the following fields and controls:

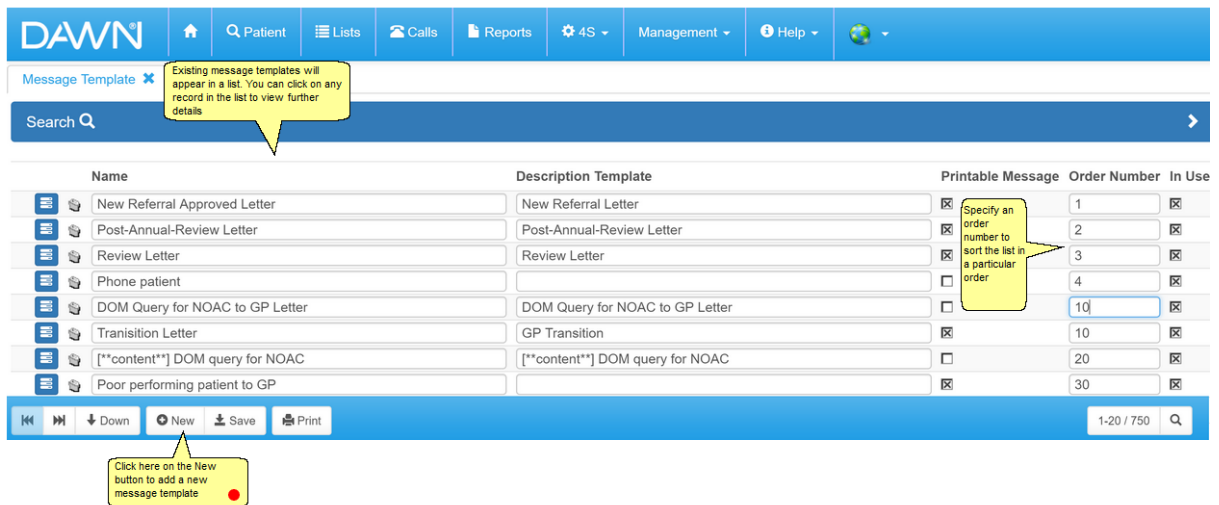
- Name:** A text input field with a callout: "You must add a name and code name for the new language here. These fields must be unique."
- CodeName:** A text input field.
- OrderNr:** A text input field with the value '0' and a callout: "The order number specifies in what order the language appears in the available list."
- In Use:** A checkbox that is checked, with a callout: "The in use box must be checked in order to use this language."
- Buttons:** 'OK' and 'Cancel' buttons at the bottom. A callout points to the 'OK' button: "Click here on the OK button to save your new language and move back to the list of languages."

## 6.26 Adding/Editing Message Templates

Letters and forms can be configured within the DAWN system. These need to be tested thoroughly if edited or added. The support team at DAWN can configure message templates for you if these are needed. Please test any new/amended message templates carefully before using with real patient data.

The screenshot shows the DAWN system interface. The top navigation bar includes the DAWN logo, a home icon, and links for Patient, Lists, Calls, Reports, 4S, Management, and Help. The 'Management' menu is open, showing options: Normal Tables, Lookup tables, Clinic View settings, Message Management, Printing, Reports, and Audit & security. The 'Message Management' option is highlighted, and a sub-menu is displayed with the following options: Message Template, Message Event, Timed Message Template, and Timed Message. A callout points to the 'Message Template' option: "Click here to add or edit a message template".

## 6.26.1 List of Message Templates



Existing message templates will appear in a list. You can click on any record in the list to view further details

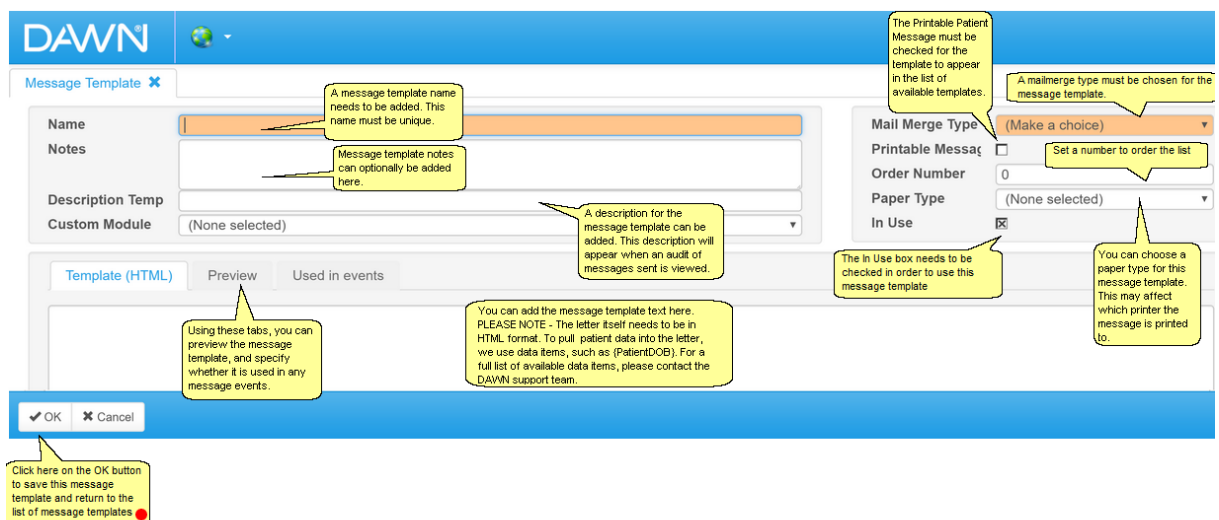
Specify an order number to sort the list in a particular order

Click here on the New button to add a new message template

Name	Description Template	Printable Message	Order Number	In Use
New Referral Approved Letter	New Referral Letter	<input checked="" type="checkbox"/>	1	<input checked="" type="checkbox"/>
Post-Annual-Review Letter	Post-Annual-Review Letter	<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>
Review Letter	Review Letter	<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>
Phone patient		<input type="checkbox"/>	4	<input checked="" type="checkbox"/>
DOM Query for NOAC to GP Letter	DOM Query for NOAC to GP Letter	<input type="checkbox"/>	10	<input checked="" type="checkbox"/>
Transition Letter	GP Transition	<input checked="" type="checkbox"/>	10	<input checked="" type="checkbox"/>
[**content**] DOM query for NOAC	[**content**] DOM query for NOAC	<input type="checkbox"/>	20	<input checked="" type="checkbox"/>
Poor performing patient to GP		<input checked="" type="checkbox"/>	30	<input checked="" type="checkbox"/>

Click here on the New button to add a new message template

## 6.26.2 Adding a New Message Template



A message template name needs to be added. This name must be unique.

Message template notes can optionally be added here.

A description for the message template can be added. This description will appear when an audit of messages sent is viewed.

The Printable Patient Message must be checked for the template to appear in the list of available templates.

A mailmerge type must be chosen for the message template.

Set a number to order the list

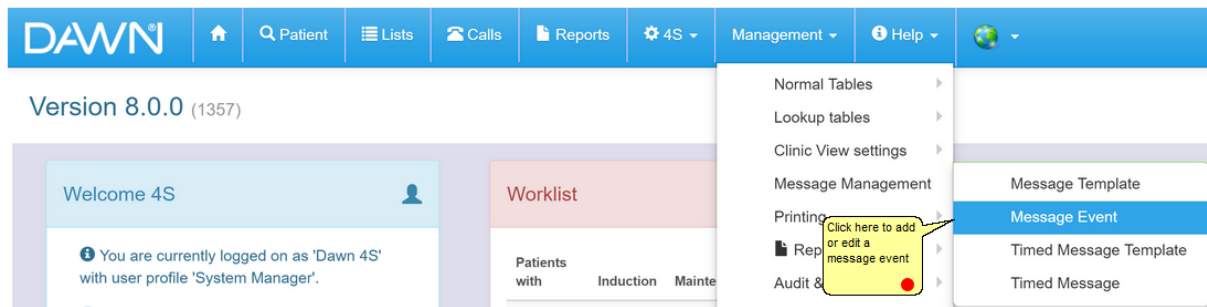
The In Use box needs to be checked in order to use this message template

You can choose a paper type for this message template. This may affect which printer the message is printed to.

Click here on the OK button to save this message template and return to the list of message templates

## 6.27 Adding/Editing Message Events

Message events can be created so that messages can be automatically printed, faxed, emailed or sent to a phone list when certain actions are carried out within the system. Please test messaging settings carefully before using with real patient data.



### 6.27.1 List of Message Events

Message Event

Search

Search for: Caption Event Type Template

Search

To view further message event details, click on the Form icon

A list of existing message events appears here. These fields are editable.

To delete a message event, click on the Bin icon to the left of the record.

Click here on the New icon to add a new message event

Form Icon	Bin Icon	Caption	Event Type	Template	In Use	Order I
		Dose letter as PDF	Patient_ManualMessage	Dose letter economailer	<input checked="" type="checkbox"/>	0
		Dose letter automatic print	Treatment_OnSchedule	Dose Letter (Simple)	<input checked="" type="checkbox"/>	0
		Treatment Plan and Recent history	ClinicView	Treatment Plan and Recent History Report	<input checked="" type="checkbox"/>	0
		ClinicView	ClinicView	INTOUTNONOTES	<input checked="" type="checkbox"/>	30
		DNA	Treatment_OnPatientDidNotAttend	Non Attendance Letter (cc GP #3) [DM]	<input checked="" type="checkbox"/>	40
		DNA Discharge	TreatmentPlan_OnPatientIsNonAttending	Discharge for Non Attendance Notice (to GP) [DM]	<input checked="" type="checkbox"/>	50
		INTOUT	Patient_ManualMessage	INTOUTNONOTES	<input checked="" type="checkbox"/>	60
		Call Patient with dose	Patient_ManualMessage	Dose Letter (Simple)	<input checked="" type="checkbox"/>	180
		PAS Update - inactivate	TreatmentPlan_OnStop	Outbound ADT*A01 or A03 Status Update Message	<input checked="" type="checkbox"/>	220
		PAS update - activate	TreatmentPlan_OnActivate	Outbound ADT*A01 or A03 Status Update Message	<input checked="" type="checkbox"/>	230
		PAS update - deactivate (on deceased)	Patient_OnPatientDeceased	Outbound ADT*A01 or A03 Status Update Message	<input checked="" type="checkbox"/>	240

Navigation: Back, Forward, Down, New, Save, Print, Refresh

## 6.27.2 Adding a New Message Event

**DAWN**

Message Event ✕

Specify a name for the message event

Event Type (Make a choice)

Template (Make a choice)

Patient message (Send no message)

Next Of Kin message (Send no message)

GP message (Send no message)

Consultant message (Send no message)

HC Profs message (Make a choice)

Keep informed level (None selected)

HC Professional Type (None selected)

In Use ☒ The InUse box must be checked in order to use this message event

Paper Type (None selected)

Discard Pending Messages ☐ Automatically discard pending messages of this type when this message event is triggered again for the same patient?

Check this checkbox if any pending messages of this type should be discarded when this message event is triggered again for the same patient. See the examples below of when and when not to check this box.

CAUTION: checking this box means existing messages are discarded even if no new message is generated this time by this message event. Do NOT check this box if the message template contains logic that means a new message is only created if the patient does not already have one. For example, you may have a non attendance reminder message. If there is a possibility of generating the same message more than once, you may have built logic into the template to say don't generate a new message if we have already generated one for this patient. However, if you check this checkbox in this case, the existing message would be marked as discarded but no new message would be generated. See manual for a fuller explanation of when and when not to use this.

Order No 0

✓ OK ✕ Cancel

Click here on the OK button to save this record and return to the list of message events

You will need to save this new record before you can add related records

You can set up a message event which enables the user to print a bulk message for many patients on a list view. Once this record is saved, the clinic view(s) you wish to use the message event on can be chosen here.

Choose the type of event. This determines when a message is automatically sent. This can trigger on actions like scheduling a patient, closing a visit, etc. The message template section determines which message template is sent.

The patient message fields, next of kin, GP and so on determine who the message is sent to, and how it is sent. For example, the patient message can be set as 'written', which means that the patient will be sent a written message such as an email, SMS or hard copy letter.

Choose a printer paper type if the message is intended for a specific sort of printer (e.g. label printer, colour printer). If omitted here, the printer paper type specified on the message template is used. In the absence of both, the first printer found for the location is used.

## Understanding Delivery Options

Drop down lists allow you to select how a message is delivered to each type of recipient (patient, next of kin, GP, consultant, or HC Professionals in the patient's treatment plan team). The following table lists the options and explains what each of them means.

Written	The message is sent as a written message by whichever delivery method the recipient has selected as their main messaging method, i.e.: email, email with PDF attachment, mail, SMS, or fax.
Phone	The message is sent to the message centre so that the recipient will be called on the phone. (The message centre is a list of outstanding phone messages, which can be worked down and actioned by DAWN users responsible for phoning patients).
Written and Phone	The message is sent both as a written message and sent to the message centre.
Written or Phone (depending on recipient's preference)	The message is sent either as a written message or sent to the message centre for phoning, depending on the recipient's main messaging method.
Mail (always)	The message is printed (for mailing) regardless of the recipient's messaging method preference.
Mail (only)	<p>The message is printed, but only if the recipient has "Mail" as their main messaging method, or as one of their additional messaging options.</p> <p><b>CAUTION: No message is produced for recipients who do not have "Mail" selected as an option for messaging, at all.</b></p>
Phone (only)	The message is sent to the Message Centre, but only if the recipient has "Phone" as their main messaging method, or as one of their additional

	<p>messaging options.</p> <p><b>CAUTION:</b> No message is produced for recipients who do not have “Phone” selected as an option for messaging, at all.</p>
Email (only)	<p>The message is sent as a simple email (with the content in the email’s body), but only if the recipient has “email” as their main messaging method, or as one of their additional messaging options.</p> <p><b>CAUTION:</b> No message is produced for recipients who do not have “email” selected as an option for messaging, at all.</p>
Email with PDF attachment (only)	<p>The message content is saved to a PDF file and sent as an attachment with a covering email, but only if the recipient has “email with PDF attachment” as their main messaging method, or as one of their additional messaging options.</p> <p>You can specify the content for the covering email in the system setting, <i>DawnMessages_EmailTemplate</i>. The template can be plain text or include html tags (so you can include images such as health centre logos). You can also use the following merge fields to personalise the message:</p> <p>[RecipientType]        "patient" or "HC professional"</p> <p>[RecipientTitle]        The recipient's title, e.g. Dr, Mr, Mrs</p> <p>[RecipientFirstName] The recipient's first name</p> <p>[RecipientLastname] The recipient's last name</p> <p>[EmailSubject]        The subject line of the email. This can be configured in the Message Template to include wider range of merged content, e.g. "Your INF from 04/12/2020"</p> <p>Only include HTML tags if your External System Connection is <b>not</b></p>



	<p>configured to send emails in plain text format (otherwise the tags are rendered as part of the text, e.g, &lt;b&gt;IMPORTANT test result&lt;/b&gt; instead of <b>IMPORTANT test result</b>.</p> <p><b>CAUTION:</b> No message is produced for recipients who do not have "email with PDF attachment" selected, as an option for messaging, at all.</p>
SMS (only)	<p>The message is sent as an SMS text message, but only if the recipient has "SMS" as their main messaging method, or as one of their additional messaging options.</p> <p><b>CAUTION:</b> No message is produced for recipients who do not have "SMS" selected, as an option for messaging, at all.</p>
Fax (only)	<p>The message is sent by fax, but only if the recipient has "fax" as their main messaging method, or as one of their additional messaging options.</p> <p><b>CAUTION:</b> No message is produced for recipients who do not have "fax" selected, as an option for messaging, at all.</p>

### CAUTION When using methods with "(only)" in the caption

Delivery options that include the word "(only)" are only sent to recipients whose preferences include that messaging option. For example, "Email (only)" messages are only sent to recipients who have "Email" as one of their messaging options. If a single message event is always supposed to trigger a message for a recipient (whatever their preferences), choose written, phone, or mail (always).

Delivery options with "(only)" in the title are designed to be used in tandem with other message events. For example, you might wish to create several variations of a message template, one for emails, one for SMS messages and one for printing or faxing. In this case, you could create five different message events, each with a different delivery option, e.g. "email (only)", "SMS (only)", "Fax (only)" etc. Each event would trigger in response to the same action, but only the ones that match the recipient's preference would produce a message. Thus, if the recipient had "email with PDF attachment" as a preference, they would receive an email (with a PDF attachment), whereas if they had SMS as a preference, they would receive a different version of the message via SMS. If they had both "email (with PDF attachment)" and "SMS" as preferences, they would receive the message by email and by SMS.

Please be careful when using delivery options with "(only)" in the title. If you do not set up a message event for every delivery type, then not all patients will get the message. This might work well for an SMS reminder of an upcoming appointment, but not for something critical like a dose letter.

## Discarding Pending Messages

Most messages are processed and delivered immediately they are generated. However, phone messages (and less commonly, emails) may stay in the queue for several hours or even days if it proves difficult to reach the recipient on the phone. Some types of message should be superseded by a later message if they have not yet been delivered by the time the same message event fires again for the same patient. For example, consider the following scenario:

You dose a patient and generate a new dosing instruction phone message. It proves difficult to reach the patient on the phone and the message sits in the queue for several days. During this time, the patient has another blood test and is dosed again, and a new dosing instruction message is generated with a different dose. Now, two dosing instruction messages are in the phone queue, but we only want the patient to get the latest one. The earlier one now contains an incorrect dosing instruction.

Checking the *Discard Pending Messages* checkbox ensures that whenever this message event fires, DAWN looks to see if there are any pending messages that were generated by the same event for the same patient. If there are, it marks them as discarded. In our example, this would mean the earlier message is automatically discarded when the new message is generated.

**Important note:** if this checkbox is checked, any pending message of the same type for the same patient are discarded when the event fires again, **whether or not the event actually generates a new message this time**. To understand this, let's refine our example:

Let's suppose you have two dosing instruction messages, one for priority patients (e.g. those who need an urgent dose change or who have a particular risk factor), and those for routine patients (who are essentially getting confirmation to continue you as they are). Priority dosing instructions are triggered by a *Priority Dose Instruction* message event, while routine dosing instructions are triggered by a *Routine Dose Instruction* message event. The message template for each event has built in logic that determines whether it creates a message. Both message events fire when the patient's dose is authorised, but only one actually creates a message. If the patient meets the criteria for a priority message, the *Priority Dose Instruction* event creates a priority dosing instruction message, while the *Routine Dose Instruction* message event does not generate a message. Otherwise, the *Routine Dose Instruction* event creates a routine dose instruction message and the *Priority Dose Instruction* event produces nothing.

If our patient's yet-to-be-delivered last dose instruction was a routine dosing instruction message, it is important that it is still marked as discarded when the *Routine Dose Instruction* message event fires again, even if it is a different message event, e.g. the *Priority Dose Instruction* event, that creates the new message this time. Indeed, if the patient is stopping treatment with immediate effect, it is possible that no new dosing instruction of either type is generated, but we still want the out-of-date one to be discarded.

### When should I not check the Discard Pending Messages checkbox?

Let's consider another type of message: a reminder or non-attendance chaser message. If you trigger reminder messages in bulk from a list view, it might be possible for the same patient to get multiple reminders in the same week. You might think that checking the checkbox would ensure that the first message is discarded when a second one is generated, but this only happens if the first message is still pending. If the patient had already been called successfully, they would still have a new message generated and would be called again. To avoid this, you might build logic into your message template to only generate a new message if the patient has not already had a reminder message generated this week. However, checking *Discard Pending Messages* in this scenario introduces a problem. In this case, if the first message is still pending when the message event fires again, the first message is discarded, but this only changes its status. It still exists, and because it exists, no new message is generated. As a consequence, the patient does not get called at all.

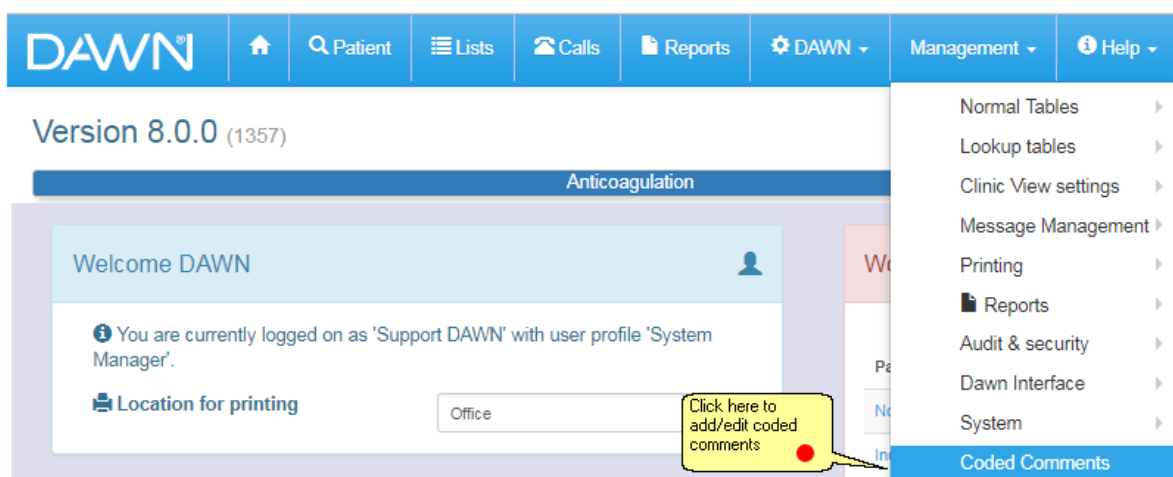
In this type of scenario, you should **NOT** check the checkbox. The original message is still valid and the logic in the template ensures that a duplicate message is not created. With the checkbox unchecked, everything works as it should. Checking the checkbox could result in the patient getting no message at all.

## 6.28 Adding/Editing Coded Comments

You can define short codes for frequently used comments; for example “nbb” for “no bleeding or bruising”.

The *CodedCommentPrefix* system setting is used to define a prefix (“.” by default) that identifies the text you type (in any notes field) as a short code.

As such you could type “.nbb” anywhere in a Patient Note, Treatment Note or Quick Note and this would automatically expand to say “no bleeding or bruising” when the note is saved.



## 6.28.1 List of coded comments

Enter topic text h

DAWN®

Home

Patient

Lists

Calls

Reports

DAWN

Management

Help

Coded Comments ✕

Search

Search for: ShortCode FullComment

ShortCode	FullComment
<div>accmed</div>	<div>Medication change: (**name of med) (**started, stopped, increased, decreased, drop down)</div>
<div>accunable</div>	<div>Anticoagulation Clinic has attempted to contact patient repeatedly regarding a critical INR. We</div>
<div>ade20</div>	<div>Patient has started on a new medication and is worried about interaction with Warfarin. Please</div>
<div>ade30</div>	<div>Initial assessment - Presenting complaint: Family history:</div>
<div>baseline</div>	<div>Baseline labs Platelets HBG Albumin AST</div>

Click to add a new coded comment

PreviousNextDownNewSavePrint

ere.

### 6.28.2 New coded comment form

DAWN®

Coded Comments ✕

ShortCode

FullComment

nnm

No new medications started

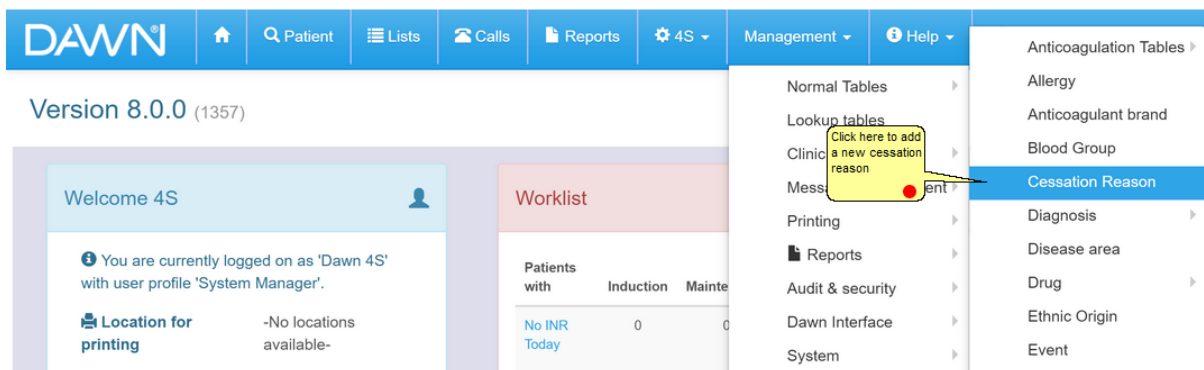
Click OK to save the coded comment

✓ OK ✕ Cancel

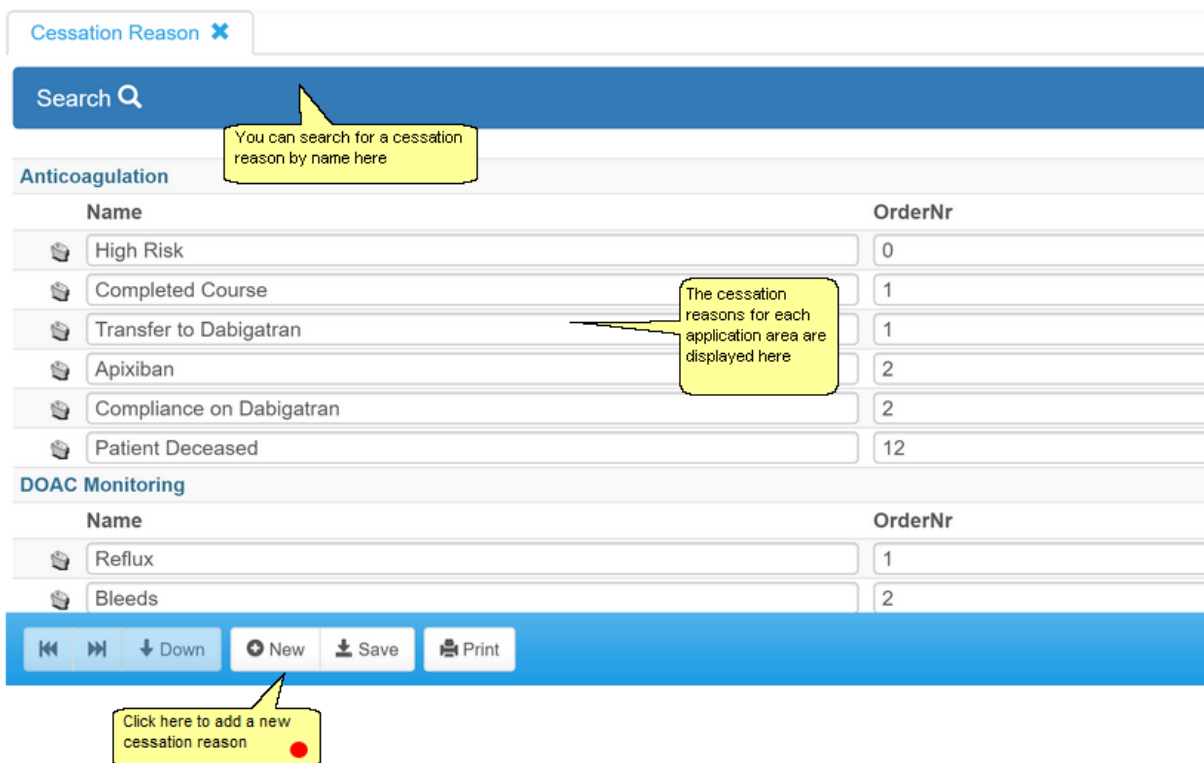
### 6.29 Adding/Editing Cessation Reason

Different cessation reasons can be set up within DAWN so that this can be chosen within the patient's treatment plan.

Please note - once a cessation reason has been added into DAWN, the cessation reason will then become a mandatory field to fill in within the patient's treatment plan.



### 6.29.1 List of Cessation Reasons



### 6.29.2 Choosing Cessation Reason Application Area

DAWN®

Home Patient Lists Calls Reports DAWN Management Help

Cessation Reason ✕

Please select a Disease area for the table Cessation Reason

Search

Anticoagulation
Gastroenterology
Haematology
LMWH
NOAC
Rheumatology
Rivaroxaban

You need to choose an application area for the cessation reason here. You can either click on the application area and choose the OK button at the bottom of the screen, or double-click on the entry.

✓ OK ✕ Cancel

Click here to choose an application area

### 6.29.3 Cessation Reason Form

The screenshot shows the 'DAWN' application interface for the 'Cessation Reason' form. The form is titled 'Cessation Reason' with a close button (X). It features a 'Disease area' dropdown menu set to 'Anticoagulation'. Below this are three input fields: 'Name', 'OrderNr', and 'In Use'. The 'Name' field has a callout: 'You need to add a name for this reason here'. The 'OrderNr' field has a callout: 'You must specify an order number for this reason. This will determine in what order the reason appears within a list.' The 'In Use' field has a checkbox and a callout: 'The in use box must be checked to use this reason'. At the bottom, there are 'OK' and 'Cancel' buttons. A callout points to the 'OK' button: 'You can click on here to save the reason'.

**DAWN**

Cessation Reason X

Disease area Anticoagulation

Name

OrderNr

In Use

You need to add a name for this reason here

You must specify an order number for this reason. This will determine in what order the reason appears within a list.

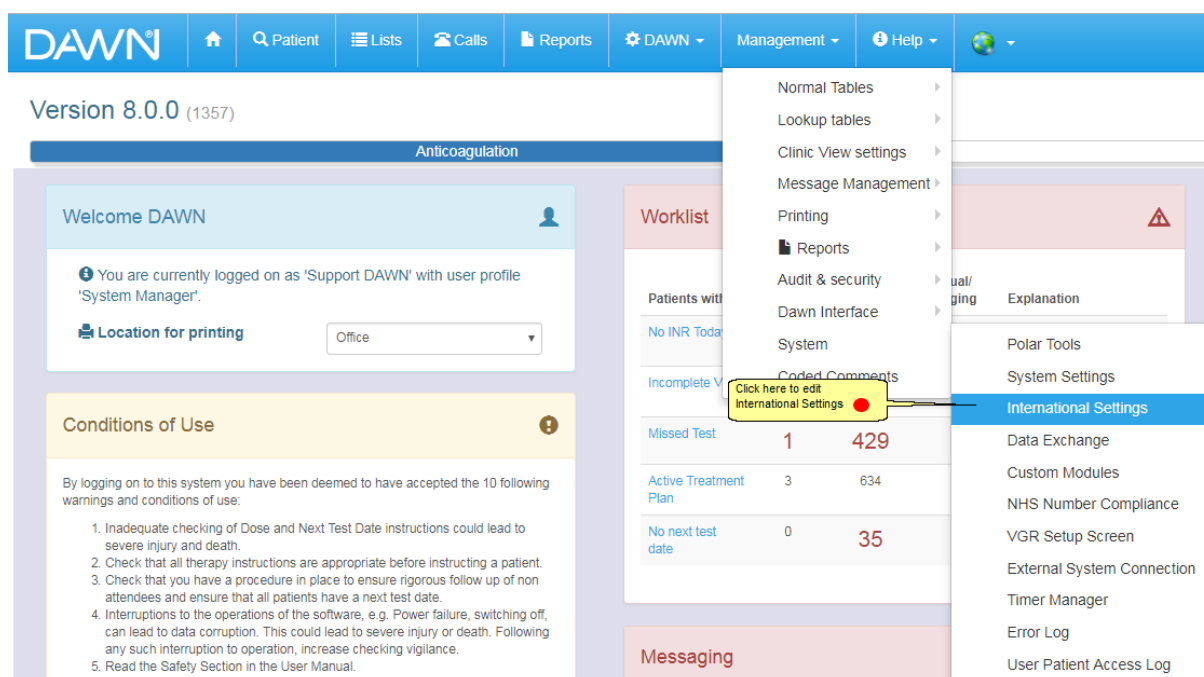
The in use box must be checked to use this reason

OK Cancel

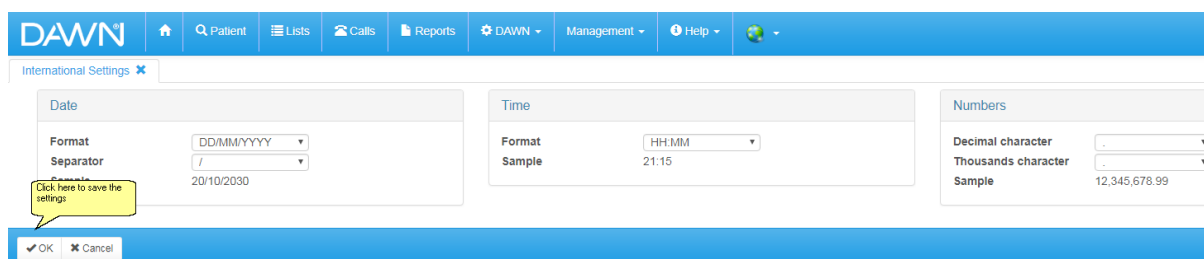
You can click on here to save the reason



## 6.30 Adding/Editing International Settings



### 6.30.1 Editing International Settings



## 6.31 Selecting a Patient Summary Report

The DAWN system can be customised to display a "Report" button on the main patient screen.

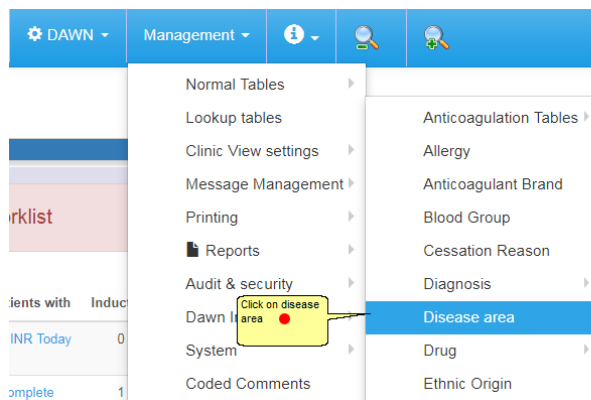
Pressing the Report button displays a summary of the patient's treatment to date, based on a preselected message template.

<b>Diagnosis</b>	ATRIAL FIBRILLATION
<b>Target Range</b>	2.0 - 3.0
<b>Start Date</b>	01/10/2016 - Indefinite
<b>Anticoagulant</b>	Warfarin 1mg Strength (in mg/ Daily)
<b>Treatment Plan</b>	< 1 > of 1 active <a href="#">Report</a>
<b>Risks</b>	

The patient summary is displayed in its own window, with pop-up Print options, in the same way as letters and messages are displayed when you select a Direct Print message from the drop down list on the letters tab.


### 6.31.1 Setting the Patient Summary Report

*Note: The following instructions should only be performed by a system administrator.*











### 6.31.2 List of disease areas

Disease area ✕

Search 

Search for: Name

Click to edit the settings 

	Code	Name	Order	In Use
	AC	Anticoagulation	0	<input checked="" type="checkbox"/>
	GE	Gastroenterology	2	<input type="checkbox"/>
	CH	Haematology	7	<input type="checkbox"/>
	LMWH	LMWH	10	<input type="checkbox"/>
	DBG	NOAC	2	<input type="checkbox"/>
	RH	Rheumatology	1	<input checked="" type="checkbox"/>
	RIV	Rivaroxaban	2	<input type="checkbox"/>

### 6.31.3 Setting the Patient Summary Report in disease area

Clicking on this will bring you to the Disease Area screen, as seen below

Disease area ×

Code Name

Name

Order

In Use ☒

Settings Front Page Tallies Html

Hex Color Code

Custom Module  →

Treatment Plan Summary Message i  →

Drug Dose Description Caption i

Click Save to save this option

Save List Print Refresh

## 6.32 Adding/Editing Reports

Brenda Management i 🔍 🔍

Normal Tables ▶

Lookup tables ▶

Clinic View settings ▶

Message Management ▶

Printing ▶

📄 Reports

Click here to add/edit a report

Down Interface ▶

System ▶

Coded Comments

Parameter

Report

Worklist

Patients with

No INR Today

Incomplete Vi

Awaiting result / yet t attend

Dose needs entering





















### 6.32.1 List of reports

Report ✕

Search 🔍

Search for: Name ℹ

Search

Name <span>ℹ</span>	In Use	Order Nr <span>ℹ</span>
 % DNA by Clinic	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % DNA in date range	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INR +/- 0.2 Target Range (InRange flag)	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INRs in above and below range	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INRs in range	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INRs in Range and within 0.2 of Limit Report	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INRs Report (Excluding First 3 Months)	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INRs within 0.5 and 0.75 of Target	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INRs within limits on first five visits	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % INRs within/not in 0.5 and 0.75 of Target	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Manual overrides and %TIR by clinic	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Manual overrides by user	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Manual overrides by user and clinic & <>Inrange	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Non Attendances Report	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % of INRs between values	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Stats % TIR per user	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Time b/w	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Time in Range Bands Report	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Time in range by clinic (trt records 22+ weeks)	<input checked="" type="checkbox"/>	<input type="text" value="0"/>
 % Time in range by clinic (trt records 22+ weeks) <span>Click to add a new report</span>	<input checked="" type="checkbox"/>	<input type="text" value="0"/>

⏮
⏭
↓ Down
➕ New
💾 Save
🖨 Print
🔄

### 6.32.2 New report form

Report ×

Name ⓘ
New TTR Report
Enter the name of the report

Description ⓘ
Enter a description of the report (Optional)

In Use ☒

Query Parameters Envelopes Settings Chart
Click to enter parameters

Enter the query

Click to save

There are no items to display

Synchronise

New Delete Save List Print

## 6.33 Messaging using Timed Messages

With the correct configuration, your DAWN system is able to send messages such as Emails and SMS to patients and Healthcare Professionals. The service which generates timed messages is run on your DAWN server and will need to be started / restarted when you are ready to test your settings. See Timed Message Service for more details.

You may need help from your IT department or DAWN support team to configure email and SMS gateways.

There are three stages to configuring DAWN for messaging...

1. Add an External System Connection
2. Add a Timed Message Template
3. Add a Timed Message

Once the gateway(s) and three stages have been configured, your DAWN system will be able to send messages such as...

- An email to specified Healthcare Professionals at a specified time each day with a count of patients with out of range results requiring acknowledgment
- An email to specified Healthcare Professionals at a specified time each day with a count of patients who have not had the expected monitoring test results recorded on DAWN more than 7 days after the visit due date, either due to non-attendance or missing test results due to other reasons
- An appointment reminder to patients a specified number of days before (or after for non-

attendances) an appointment by any combination of methods including email or SMS.

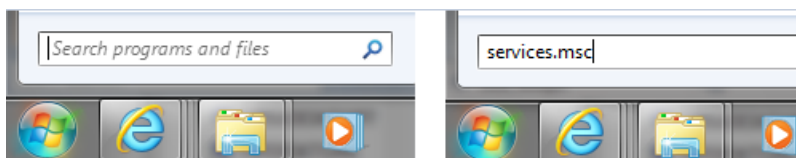
NEXT

### 6.33.1 Timed Message Service

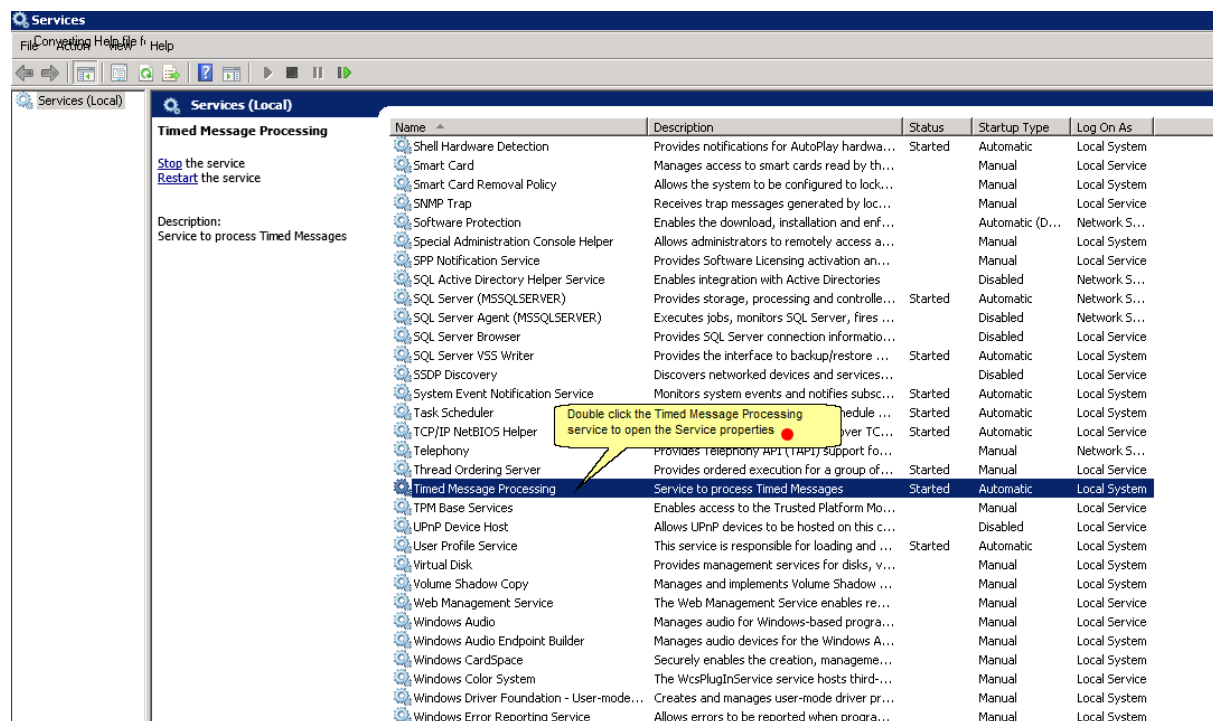
If you add, edit or delete a Timed Message then you will need to restart the Timed Message Service on the DAWN server so that it picks up the changes. You will need to speak to the DAWN support team or your IT department so that this service can be restarted. The '**Timed Message Processing**' service should be set as an **Automatic** startup and run continuously to allow messages to be relayed by e-mail or SMS at preset times.

To access the Timed Message Service on the DAWN server, click on the Windows Start button in the bottom left hand corner (this may look slightly different depending on which version of Windows you are using)

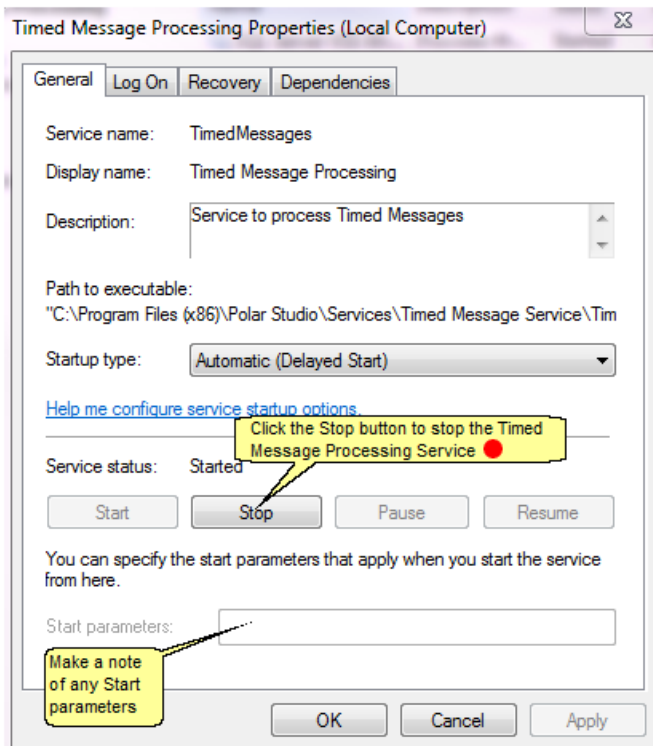
In the Search programs and files box type in services.msc and press Enter



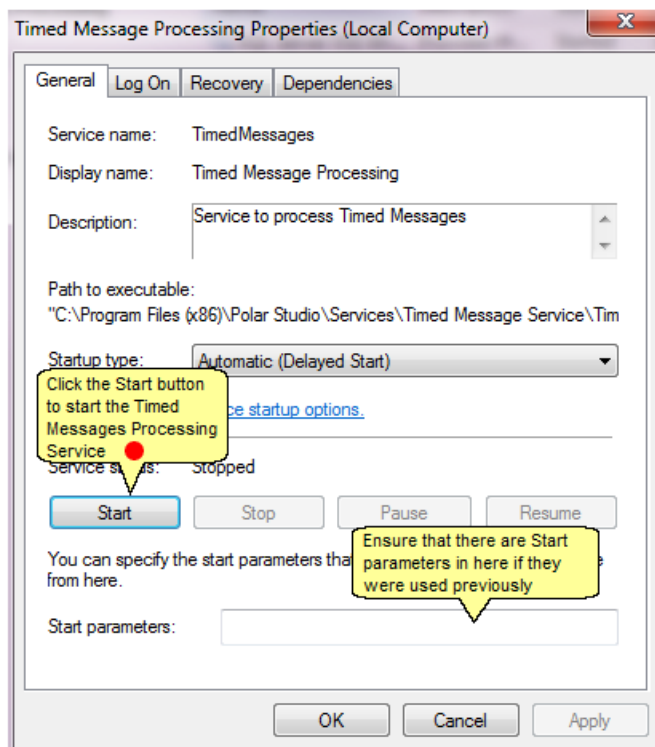
Scroll down the list of Services until you find Timed Message Processing



### 6.33.2 Timed Message Processing Service - stopping



### 6.33.3 Timed Message Processing Service - starting



The Timed Message Processing Service has now been restarted and will have picked up any changes that have been made previously.



**Note:**

If logging is enabled then the Timed Message Processing Service writes to a text file within the project file on the DAWN server.

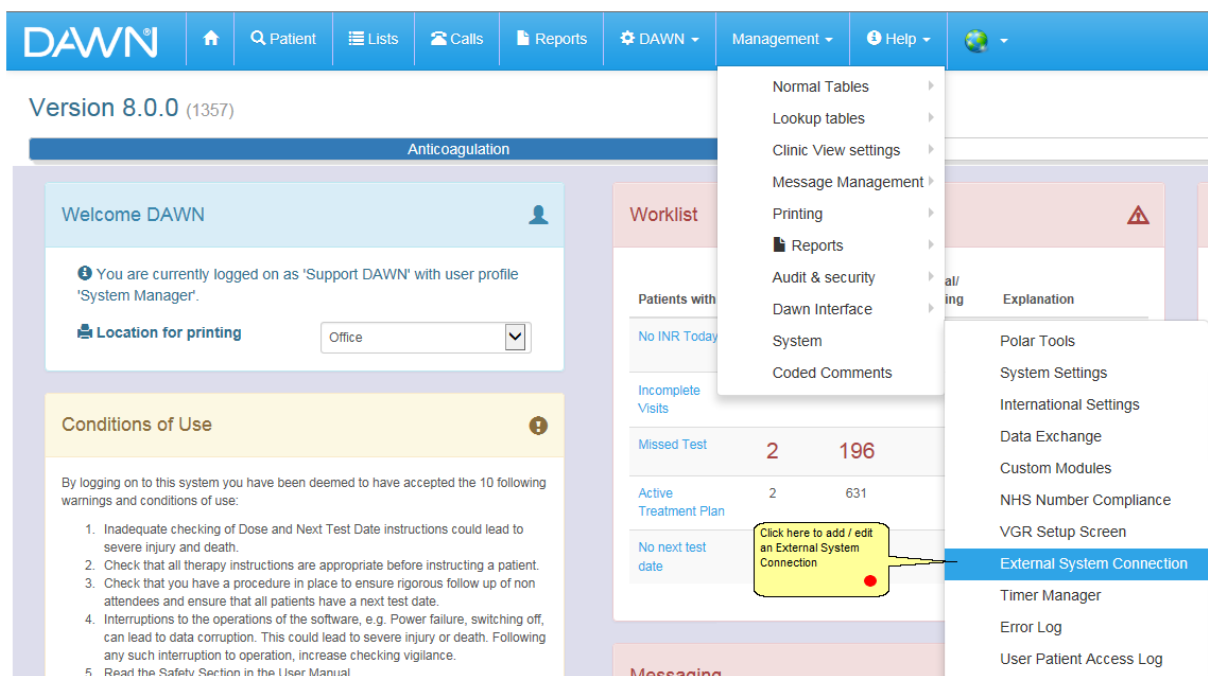
In this example, the log file will be found in: C:\Program Files (x86)\Polar Studio\ProjectMS\TimedMessageLogs\

A new log is created every time the Timed Message Processing Service is restarted (this is signified by the 1 at the end of the Start parameters). Any logs older than one month are deleted.

### 6.33.4 Adding/Editing an External System Connection

External System Connections can be configured within the DAWN system. These need to be tested thoroughly if edited or added. The support team at DAWN can help configure External System Connections for you if these are needed. Please test any new/amended External System Connections carefully before using in a live context.

External System Connections are used for enabling Email and SMS from DAWN.



### 6.33.4.1 List of External System Connections

External System Connection

Search

Search for: System Name  Connection Type: -All-

System Name	Connection Type	Expiry Date	In Use
DAWNDoctor	Email	<input type="text"/>	<input type="checkbox"/>
DawnTest	SMS via Email	<input type="text"/>	<input type="checkbox"/>

A list of existing External System Connections will be displayed. You can click on the form icon next to any record in the list to view further details and edit the record.

The In Use box needs to be checked in order to use this External System Connection.

Click here on the New button to add a new External System Connection.

Navigation:       1-2

### 6.33.4.2 Adding an External System Connection

The External System Connection screen is dynamic. Depending on the Connection Type that is chosen, certain fields will be visible or hidden.

**DAWN**

External System Connection ✕

**System Name**

**Connection Type**

**Description**

**Username**

**Password**

**From Address**

**URL**

**Use a Fixed Email Address?** ☐

**Fixed email address**

**SMS Email Domain**

**Server Name or IP**

**Port**

**Send as Plain Text** ☐

**Requires TLS/SSL** ☐

**File Type**

**File Name**

**Request Format**

**Expiry Date**

**Maximum SMS Characters**

**In Use** ☒

External System Connection notes can be added here

An External System Connection name needs to be added. This must be unique

A connection type needs to be chosen from the drop down menu. Depending on the Connection Type that is chosen, certain fields will be visible or hidden

Username and password of External System (not always required)

The email address to send messages from

Used if SMS by Email is the Connection Type. If your email to SMS service uses a fixed email address, check the Use a Fixed Email Address checkbox and enter the address in the Fixed email address field. If Use Fixed Email Address is unchecked, enter the domain in SMS Email Domain, e.g. @email-to-sms.com. In this case, DAWN constructs the email address by concatenating the recipient's mobile phone no with the domain, e.g. 0777888999@email-to-sms.com.

For Email / SMS via Email. Check to send the email as plain text. Leave unchecked to send as HTML

Check if server requires secure connection

File path and name are used if File is the Connection Type

The following file types are available:  
Plain Text  
HTML  
PDF

Maximum characters allowed in SMS by provider

The In Use checkbox needs to be checked in order to use this External System Connection

Click here on the OK button to save this External System Connection and return to the list of External System Connections

### 6.33.4.3 Deleting an External System Connection

Great care should be taken when deleting an External System Connection. The support team at DAWN can help you with this if needed.

Open the External System Connections.

External System Connection

Search

Search for: System Name Connection Type -All- Search

System Name	Connection Type	Expiry Date	In Use
DAWNDoctor	Email		<input checked="" type="checkbox"/>
DawnTest	SMS via Email		<input checked="" type="checkbox"/>
NHS	Email		<input type="checkbox"/>

Click on the Save button to save the External System Connections

Uncheck the In Use box so that the External System Connection is not being used. Once the record is not In Use it can be deleted

Navigation: New Save Print 1-3 / 3

#### 6.33.4.4 Delete the External System Connection

Once you have marked an External System Connection as not In Use and pressed the Save button, a bin icon will appear next to the External System Connection.

External System Connection

Search

Search for: System Name Connection Type -All-

System Name	Connection Type
DAWNDoctor	Email
DawnTest	SMS via Email
NHS	Email

A bin icon appears next to the External System Connection that has been marked as not In Use. Click on the bin icon so that it turns red

Click on the Save button to delete the External System Connection and return to the list of External System

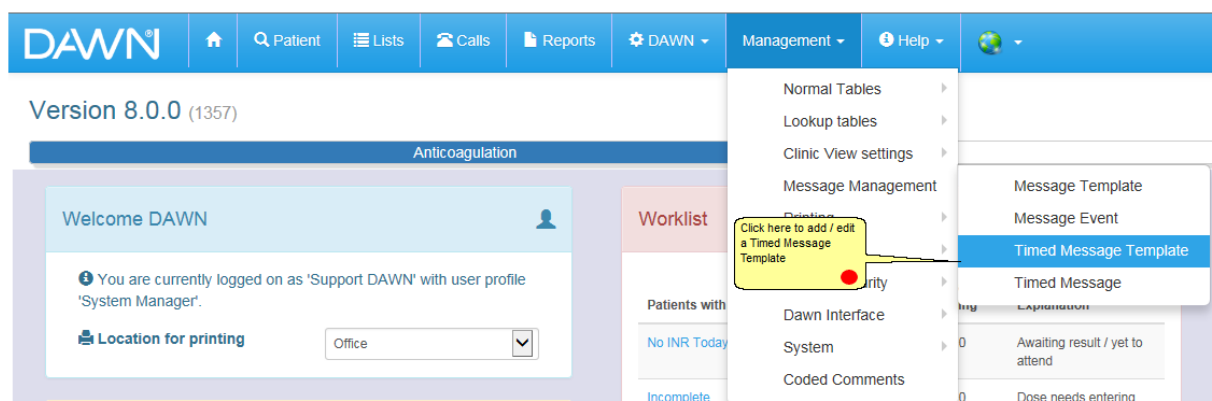
Navigation: New Save Print

If you attempt to mark an External System Connection which is being used as not In Use then an error message will appear. If you have marked the wrong External System Connection as not being In Use by accident then mark the External System Connection as In Use. If you intend to delete this External System Connection then you will first need to create a new External System Connection of the connection type that you wish to replace and then delete

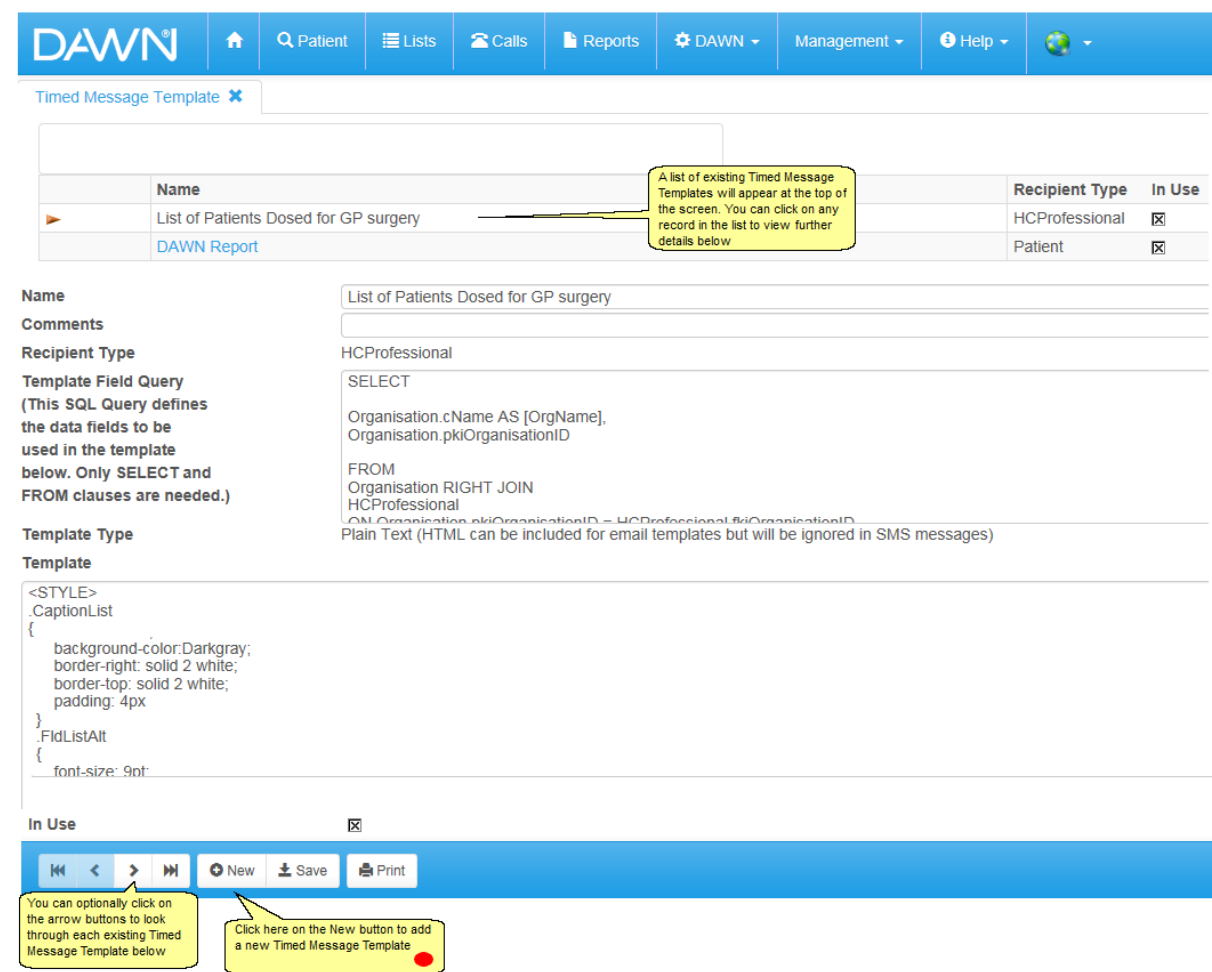
the External System Connection.

6.33.5 Adding/Editing a Timed Message Template

Timed Message Templates can be configured within the DAWN system. These need to be tested thoroughly if edited or added. The support team at DAWN can help to configure Timed Message Templates for you if these are needed. Please test any new / amended Timed Message Templates carefully before using with real patient data.



6.33.5.1 List of Timed Message Templates



### 6.33.5.2 Adding a Timed Message Template

**DAWN**

Timed Message Template ✕

**Name**

**Comments**

**Recipient Type**

**Template Field Query**  
(This SQL Query defines the data fields to be used in the template below. Only SELECT and FROM clauses are needed.)

**Template Type**

**Template**

**In Use**

**Custom Module**

**Order Number**

Once you have created a Timed Message Template above, please create one or more records on the Timed Messages screen for this template to define when the message should be sent and who the recipients will be.

✓ OK ✕ Cancel

Click here on the OK button to save this Timed Message Template and return to the list of Timed Message Templates

A Timed Message Template name needs to be added. This name must be unique

The recipient type for the Timed Message Template must be chosen (Patient or HC Professional)

You can add the Timed Message Template field query here. This defines the fields available for use in the template below. The query must have a SELECT and FROM clause. If the recipient type is Patient then the FROM tables must include Patient. If the recipient type is HC Professional then the FROM tables must include HC Professional

You can add the Timed Message Template text here. HTML can be included for messages to be sent by email but will be ignored in SMS messages.

To pull patient data into the message we use data items such as {PatientDOB} - defined in the Field Query above. For a full list of available data items, please contact the DAWN support team

The In Use box must be checked in order to use this Timed Message Template

Plain Text (HTML can be included for email templates but will be ignored in SMS messages)

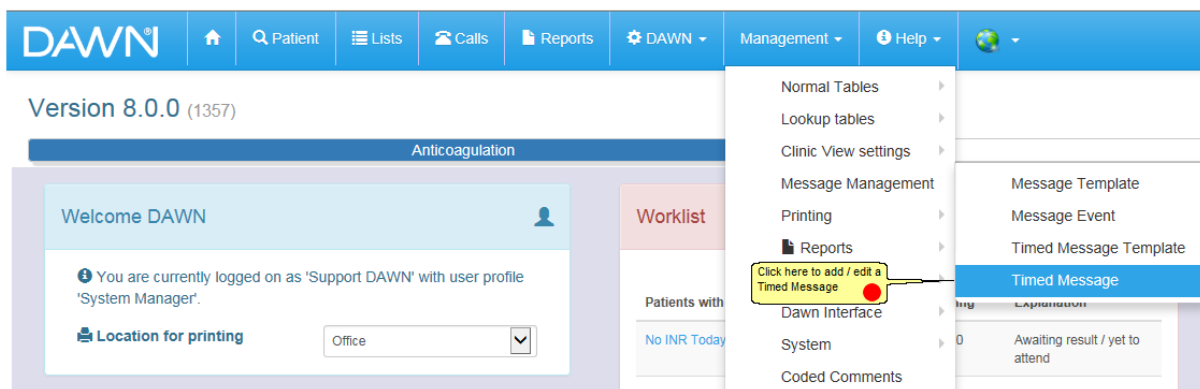
(None selected)

40

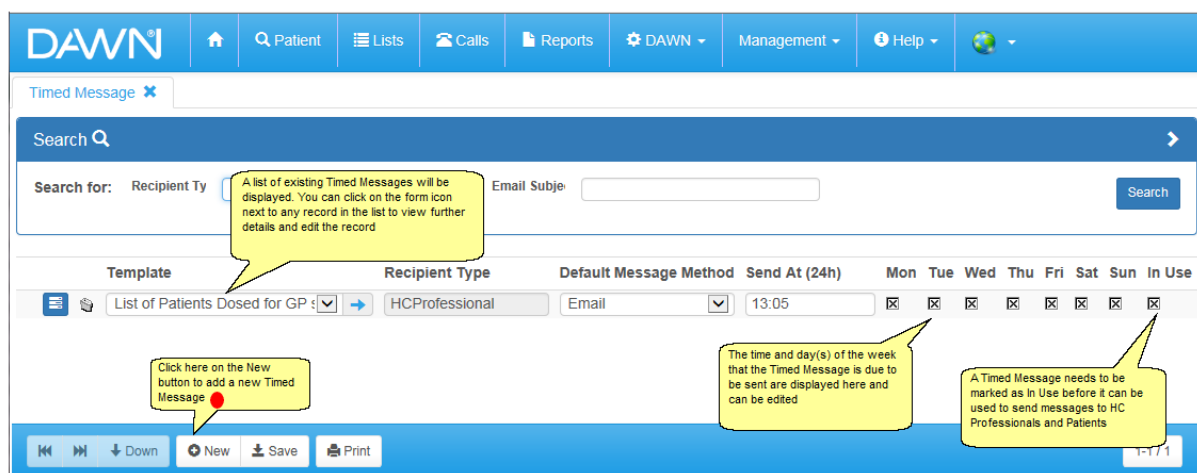
### 6.33.6 Adding/Editing a Timed Message

Timed Messages can be configured within the DAWN system. These need to be tested thoroughly if edited or added. The support team at DAWN can help configure Timed Messages for you if these are needed. Please test any new / amended Timed Messages carefully before using with real patient data.

You must have set up an External System Connection and Timed Message Template before setting up the Timed Message.



### 6.33.6.1 List of Timed Messages



### 6.33.6.2 Adding a Timed Message

**Timed Message** ✕

**Template** (Make a choice)   
 *A Timed Message Template needs to be chosen from the drop down list. This list only displays Templates that are 'In Use'*

**Recipient Type**   
 *Email or SMS must be chosen from the drop down list. The default message method can be overridden for individual patients or Healthcare Professionals*

**Default Message Method** (Make a choice) ▾   
 *Email or SMS must be chosen from the drop down list. The default message method can be overridden for individual patients or Healthcare Professionals*

**Email Subject**   
 *An email subject is required*

**Send At (24h)**   
 *A time and day (or multiple days) must be chosen. This is when the message will be sent*

**Mon** ☐   
 **Tue** ☐   
 **Wed** ☐   
 **Thu** ☐   
 **Fri** ☐   
 **Sat** ☐   
 **Sun** ☐   
 *You can add the Timed Message recipient query here. This defines the people who will receive the message. The query must have a SELECT and FROM clause*

**SMS Provider** (None selected)   
 *An SMS provider must be chosen from the drop down list if one has been configured in the External System Connections*

**In Use** ☐   
 *The In Use box needs to be checked in order to use this Timed Message*

**Recipient Query**   
 (this query should return a list of Patient IDs or HC)

✓ OK ✕ Cancel   
 *Click here on the OK button to save this Timed Message and return to the list of Timed Messages*

### 6.33.7 Altering Patient Specific Contact Details

If the patient's usual method of communication needs to be overridden within DAWN for timed messages then these steps need to be completed.



Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info Next of kin Clinical Owners Account Audit

Personal and Address Contact (main) Contact (Additional)

+ Add a new record Telephone Numbers

There are no items to display

+ Add a new record Email Addresses

There are no items to display

+ Add a new record Email / SMS Alerts

There are no items to display

Click on the Personal tab, then the Contact (Additional)

Click to add a new Timed Message

⏮ < > ⏭ New Save List Print Refresh

### 6.33.7.1 Adding a new timed message - patient specific

Message Contact Details ✕

Patient: TARGARYEN Daenerys (01/01/1987) # / 012 345 6789 > Message Contact Details: (New record)

Template (Make a choice) Select a template

Message Method (Make a choice) Select a messaging method

Contact Type (None selected) Select a contact type

In Use ☒

Select OK when done

✓ OK ✕ Cancel

Details entered on this screen will override the default message method defined for the timed message and / or allow contact details other than the main mobile number or email address for the recipient to be used when sending the message.

There is no need to enter details here if the recipient wants to receive the alert by the default method for the message to their main mobile number or email address.

To see the default settings or the message contact your system administrator or view the Timed Messages screen from the System Menu.

The three Message Methods are:


<b>Email</b>	Message sent by email
<b>SMS</b>	Message sent by SMS
<b>Opt Out</b>	No message to be sent for this Template (e.g. patient does not want to receive SMS reminders about attendance)

The five Contact Types are:

<b>Main mobile no</b>	This will send the message to the patient's main mobile number (if it has been entered into DAWN)
<b>Main email address</b>	This will send the message to the patient's main email address (if it has been entered into DAWN)
<b>Next of kin mobile no</b>	This will send the message to the patient's next of kin's mobile number (if it has been entered into DAWN)
<b>Next of kin email</b>	This will send the message to the patient's next of kin's email address (if it has been entered into DAWN)

<b>address</b>	it has been entered into DAWN)
<b>Specify</b>	This contact type allows you to enter new different contact details. If the Message Method is Email then you can add a different email address to send the message to. If the Message Method is SMS then you can add a different mobile phone number to send the message to.

### 6.33.7.2 Saved timed messages - Patient

<a href="#">Add a new record</a> → <a href="#">Email / SMS Alerts</a>		
Template	Method	Type
 DAWN Report	SMS	Main Mobile No

### 6.33.7.3 Review the timed message settings

To review the settings for timed messages, please run a Report called '**Active patients with contact details**'

### 6.33.8 Altering Healthcare Specific Contact Details

If the Healthcare Professional's usual method of communication needs to be overridden within DAWN for timed messages then these steps need to be completed.

14 IMPERIAL AVENUE - Perry V U

Organisation

14 IMPERIAL AVENUE

→

Role

GP

▼

Last name

Perry

First name

V U

Initials

P

In Use

☒

Address info

Teams

Account info

Notes

Patients

Title

Dr

National Number

G8712863

Local Number

Direct Telephone

07829 487435

Mobile

0777 351 5424

Email

Direct Fax

01539 324 6714

Messaging methc

Mail

▼

Email / SMS Alerts

Add a new record

There are no items to display

Click to add a new timed message

The additional contact for Email / SMS Alerts should now be visible on the Healthcare

Professional's record.

To review the settings for timed messages, please run a Report called '**Active HC professionals with contact details**'.

BACK

### 6.33.8.1 Adding a new timed message - HCProfessional



The three Message Methods are:

<b>Email</b>	Message sent by email
<b>SMS</b>	Message sent by SMS
<b>Opt Out</b>	No message to be sent for this Template (e.g. Healthcare Professional does not want to receive SMS reminders about non-attendance)

The three Contact Types are:

<b>Main mobile no</b>	This will send the message to the Healthcare Professional's main mobile number (if it has been entered into DAWN)
<b>Main email address</b>	This will send the message to the Healthcare Professional's main email address (if it has been entered into DAWN)
<b>Specify</b>	This contact type allows you to enter new different contact details. If the Message Method is Email then you can add a different email address to send the message to. If the Message Method is SMS then you can add a different mobile phone number to send the message to.

### 6.33.8.2 Saved timed message - HCProfessional

Email / SMS Alerts		
<div>  Add a new record           <span>→ 1 - 1 / 1</span> </div>		
Template	Method	Type
 List of Patients Dosed for GP surgery	Email	Main Email Address

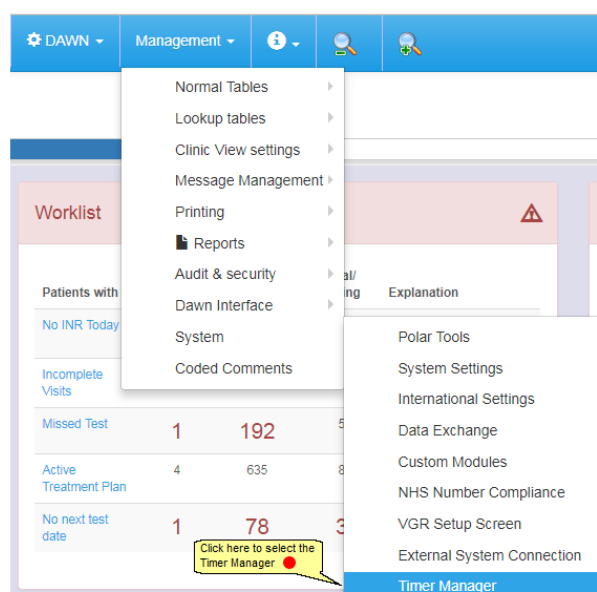
### 6.33.8.3 Review timed message settings - HCProfessional

To review the settings for timed messages, please run a Report called '**Active HC professionals with contact details**'.

## 6.34 Timer Manager

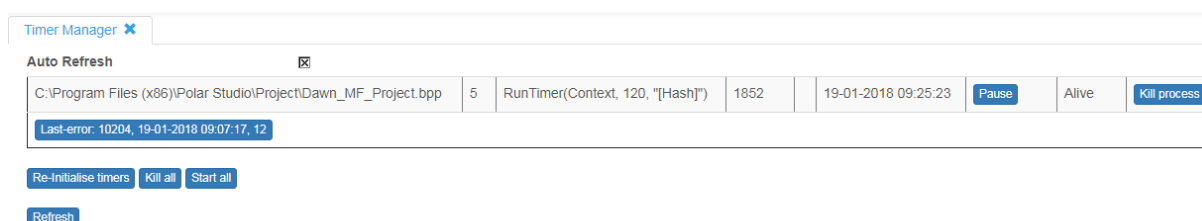
The Timer Manager allows tasks to be run in the background. For example, the clinic diary can be updated in a background process over night.

The Timer Manager runs independently of DAWN and will always be running in the background and can be controlled via the Timer Manager screen. The Timer Manager can be configured to send emails when a task running in the background encounters an error.



### 6.34.1 Timer Manager Screen

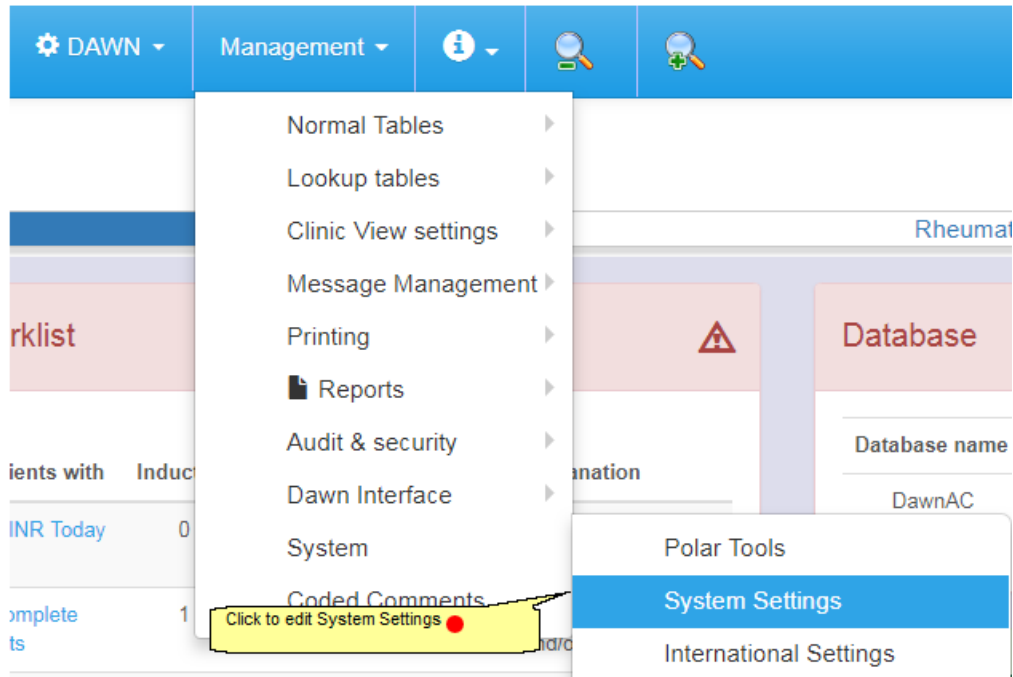
The Timer Manager screen displays the project the timer is running in, the interval in seconds in which the timer is checking for new tasks, the ID of the process and the current date and time. When the Timer Manager has a task running the task name is also displayed. The Timer Manager screen by default is set to refresh automatically every few seconds. This allows for any updated data to be displayed on the screen.



### 6.34.2 Settings - Timer Manager

The Timer Manager can be configured to send emails if there is an error and run on a single server if the DAWN system is set up to use load balanced servers.

**Please Note:** The computer name does not need changing for load balanced application pools. The context for 'load balanced servers' refers to DAWN running on multiple web servers where users are automatically routed to the least busy server.



### 6.34.2.1 Search for Timer Manager

 A screenshot of the 'System Settings' search interface. At the top, there is a 'Search Q' bar. Below it, a 'Sorting:' dropdown is set to 'Name'. A search input field contains 'TimerManager', with a yellow callout box pointing to it that says 'Enter TimerManager and search'. To the right of the search field is a 'Value' dropdown and a 'Search' button. Below the search bar is a table titled 'Customizations'. The table has columns: 'Name', 'Value', 'Description', 'Type', 'Min', 'Max', 'Required', and 'Last Change'. There are three rows of settings:
 

Name	Value	Description	Type	Min	Max	Required	Last Change
TimerManager_ErrorEmail_EmailAddress		Email address to receive error emails from timer tasks, leave empty to send no emails on error	string			<input type="checkbox"/>	28/08/2015 12:00
TimerManager_ErrorEmail_IgnoredErrorNumbers		List of error numbers which should be ignored, i.e. no email notifications for these errors (separate values with ',' or ';' eg 10,20,30)	string			<input type="checkbox"/>	28/08/2015 12:00
TimerManagerComputerName	*	The name of the computer that is to run the TimerManager, set blank to disable the Timer Manager (default use * for current computer name)	string			<input type="checkbox"/>	28/08/2015 12:00

 At the bottom of the interface are buttons for 'Save', 'Print', and 'Refresh', along with a pagination indicator '1-3 / 3' and a search icon.

### 6.34.2.2 Configuring the Timer Manager to Send Error Notifications

In order to configure DAWN to send emails, your DAWN system should be set up with a valid SMTP server. If your system is not already configured to send emails, enter the address of your mail server in the system setting **SendMail\_CDOsys\_SMTPserverName**.

Error emails sent from DAWN system need to have a sender address to identify the sender of the email to the recipient. To set the sender address, you must enter the email address into the setting **NewPasswordFromAddress**.

A recipient email will need to be set up and should be the email address of the person you wish to receive the error email notifications. To configure the recipient email enter the email address into the system setting **TimerManager\_ErrorEmail\_EmailAddress**.

Certain error numbers can be suppressed by populating the **TimerManager\_ErrorEmail\_IgnoredErrorNumbers** with a comma or semi-colon separated list of the error numbers you wish to ignore.

For the changes to be applied the timers must be reinitialised using the Timer Manager screen..

### 6.34.2.3 Configuring the Timer Manager Computer Name

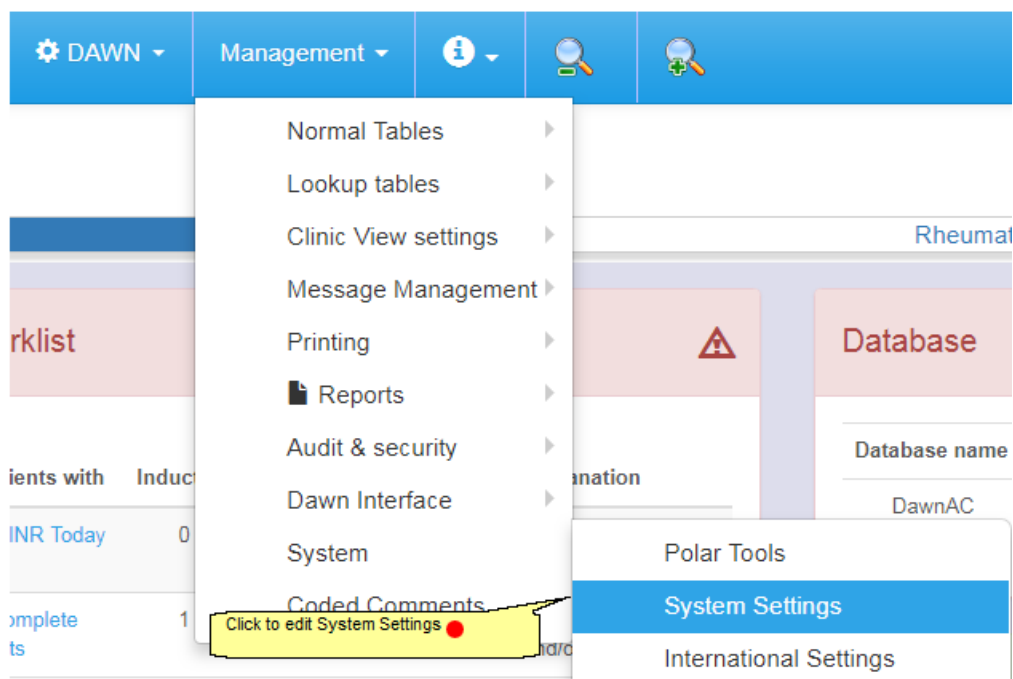
The default value for **TimerManagerComputerName** setting is \* which will automatically identify the current server name that DAWN is running on.

If DAWN is set up to use load balanced servers (e.g. using two application servers pointing at a SQL database), the Timer Manager must be set up to run on a single server. If you are running load balanced servers then you should input the computer name of one of the servers into the **TimerManagerComputerName** system setting. This will prevent the Timer Manager from running on each server, thus stopping the Timer Manager from running tasks twice.

Leaving the **TimerManagerComputerName** setting blank will stop the Timer Manager from running. However, this change will only take effect once the Timer Manager has been manually closed on the server by ending the process in Task manager.

### 6.34.3 Settings - Auto Maintain Diary

The Auto Maintain Diary process updates the clinic diary using the Timer Manager, therefore not affecting the end user whilst the diary is being updated.



### 6.34.3.1 Search for Auto Maintain Diary

The screenshot shows the 'System Settings' window with a search bar at the top. The search bar contains 'DiaryExtensionStartTime'. Below the search bar, there is a table of customizations. The table has columns: Name, Value, Description, Type, Min, Max, Required, and Last Changed. The row for 'DiaryExtensionStartTime' shows a value of 0, a description about the timer start time, and a last changed date of 20/08/2015.

Name	Value	Description	Type	Min	Max	Required	Last Changed
DiaryExtensionStartTime	0	At what time should the Diary Extension timer start. Format: an integer indicating the hours in 24 hour format. eg 3 = 3am. 20 = 8pm. Maximum value is 21, to allow 3 hours of processing time for the task to complete	Integer	0	21	<input checked="" type="checkbox"/>	20/08/2015 12:00

The **DiaryExtensionStartTime** setting takes a value between 0 and 21 which refers to the hour in 24 hour format at which the auto maintain diary task will begin processing. For example, setting the setting to 17 will start executing the **Auto Maintain Diary** task at 5pm each time it needs to run. Values of 22 - 24 are not allowed to be input so that tasks do not run into the next day.

### 6.34.3.2 Finding when the diary was last extended

The last time the diary was updated by the Timer Manger can be checked in the DAWN system settings by finding the **Diary\_AutoMaintenance\_LastDate** setting and checking the value as shown in Figure 2. The format the value takes is **YYYYMMDD**.

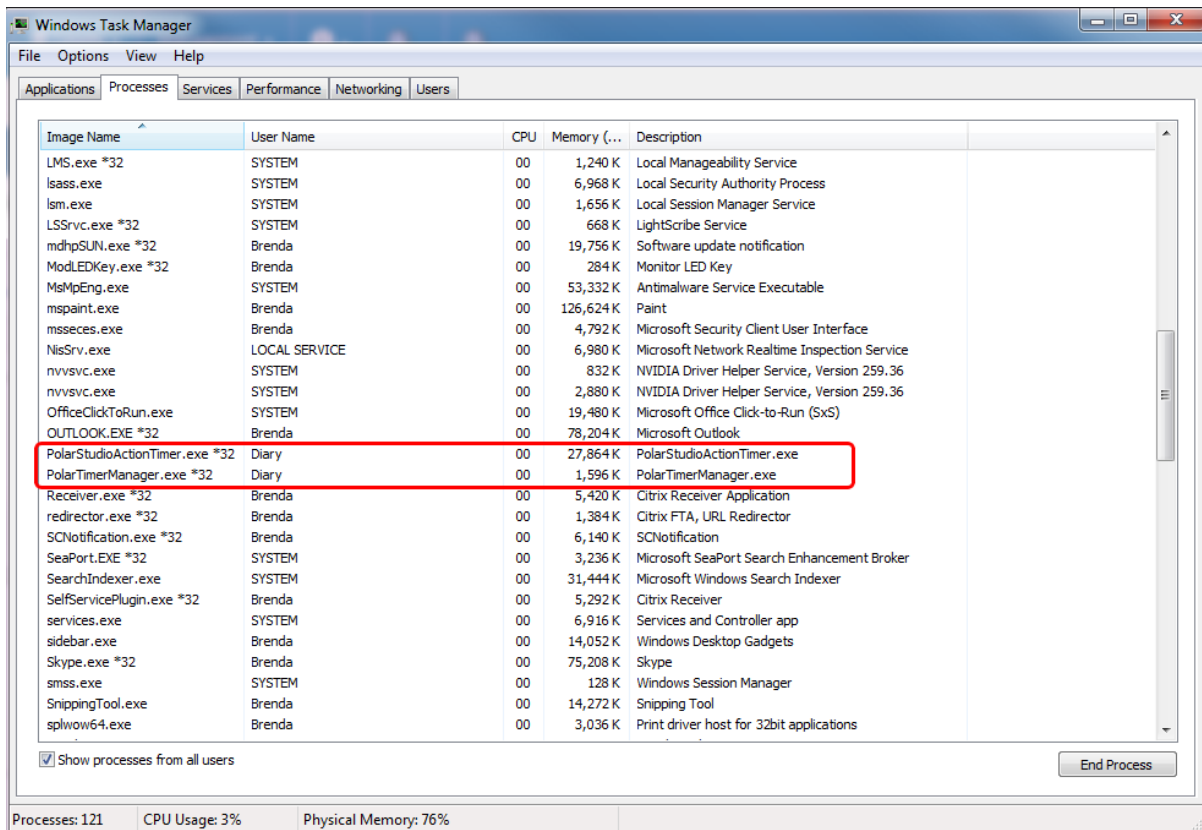
The screenshot shows the 'System Settings' window with a search bar at the top. The search bar contains 'LastDate'. Below the search bar, there is a table of customizations. The table has columns: Name, Value, Description, Type, Min, Max, Required, and Last Changed. The row for 'Diary\_AutoMaintenance\_LastDate' shows a value of 20180119, a description about the date the diary was automatically maintained, and a last changed date of 11/05/2012.

Name	Value	Description	Type	Min	Max	Required	Last Changed
Diary_AutoMaintenance_LastDate	20180119	The date the diary was automatically maintained the for the last time	text	0	20	<input type="checkbox"/>	11/05/2012 13:30
ErrorLog_AutoMaintenance_LastDate	20180119	Last date the Maintenance task last ran	Text	0	20	<input checked="" type="checkbox"/>	29/12/2016 10:26

### 6.34.4 Stopping the Timer Manager Manually

In some circumstances the Timer Manager may need to be stopped manually in order to register an updated system setting. This can be done by going to task manager on the server that the Timer Manager is running on, clicking on the Processes tab, finding the processes **PolarStudioActionTimer.exe** and **PolarTimerManager.exe** and selecting End process or End task depending on the Operating System.





## 6.35 Portal Questionnaires

If you have purchased the Patient Portal module, DAWN gives you a url which your patients can use to access a portal on the internet.

The DAWN Portal allows patients or healthcare professionals to complete questionnaires in the Cloud and post the answers back to your DAWN system.

Use of the Portal Questionnaires within Dawn require the Dawn SQL Server Database to be at version 2016 (13.0) or higher. In addition the database compatibility level needs to be at least 130.

### 6.35.1 Setting up Portal Users

Patients or HCProfessionals can be set up as Dawn Portal users with their email address as the user id. This is done via the Patient screen - Personal / Account tab and the HCProfessional screen - Account Info tab.

Setting up a Patient Portal Account

Setting up a HCProfessional Portal Account


#### 6.35.1.1 Setting up a Patient Portal Account

Go to the patient Personal tab and select the Account tab.

<a href="#">Graph</a> <a href="#">History</a> <a href="#">Personal</a> <a href="#">Treatment plans</a> <a href="#">Questionnaires</a> <a href="#">Test Results</a>	
<a href="#">Contact info</a> <a href="#">Next of kin</a> <a href="#">Clinical</a> <a href="#">Owners</a> <a href="#">Account</a> <a href="#">Audit</a>	
User	Bertie
Portal UserID	bertie@4s-dawn.com
Portal User	<input checked="" type="checkbox"/>
Password Expires	12/11/2023
Failed logins	2
Failed logins (all)	10
Locked	<input type="checkbox"/>
Last login date	15/09/2023 10:20:07
Total logins	53
Password Reset Request	<input type="checkbox"/>
Registration Completed	
Ts&Cs Accepted	

Complete the form and click 'save'.

NB The patient's email address must be unique. If you try and save a record for an email address which is not unique, the following message will be displayed:



A portal user must have a unique main email address. The following people also have this email:  
Patient - Bertie Bassett (10270)

OK

### 6.35.1.2 Setting up a HCProfessional Portal Account

Go to the HCProfessional record and select the account info tab.

Patient **×** **HCPProfessional** **×**

In Use **☑**

Address info Teams **Account info** Notes Patients

User

[Click to reset existing password for user](#)

Password Expires

Failed logins

Failed logins (all)

Locked ☐

Last login date

Total logins

User Profile

Network Login

Portal UserID

Portal User ☒

Portal Password Expires

[Click to reset existing portal password for user](#)

[Click to set or reset a password](#)

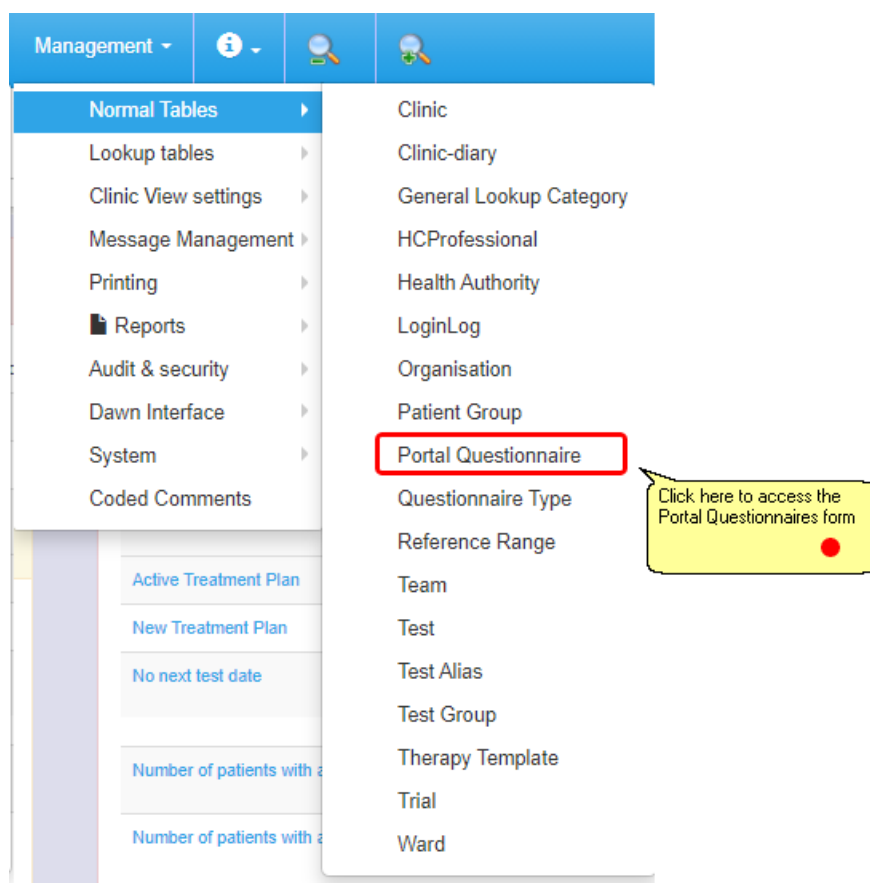
The email address is pulled from the email address field on the address info tab

Check to make this account a portal user

### 6.35.2 Creating Portal Questionnaires

If you have purchased the Patient Portal module, DAWN gives you a url which your patients can use to access a portal on the internet. The portal connects to your DAWN system to log patients in using credentials stored in your database. They can then fill out questionnaires and post their answer back into your DAWN system.

You can create your own questionnaire templates in DAWN. This section explains how.



### The Portal Questionnaires Form

#### Adding Questions

Restricting questionnaires to specific groups of patients

### 6.35.2.1 The Portal Questionnaires Form

The portal questionnaires form shows existing portal questionnaires:

PortalQuestionnaire

Portal Questionnaire

INR questionnaire

Code name

QINR

In Use

☒

You cannot delete questionnaires that are in use

Only questionnaires marked as in use are displayed in the portal

Give questionnaires unique code names for use in message templates or list views. (This means you can change the name but keep the code so the message template still works.)

Questions

Restrict Access

Changing question numbers affects the display. After changing question numbers, always check all parent/child relationships are still valid.

Click to add a new question

Add a new record

Questions

Number	Question	Relationship
1	Since your last INR, have you experienced any bleeding or bruising?	Parent (main) question
1.1	If Yes, please give details	Child (sub) question
1.2	If yes, what level of medical assistance did you receive?	Child (sub) question
1.3	If No, have you experienced any other possible side effects of your therapy?	Child (sub) question
2	Since your last INR, have you had any change in medications?	Parent (main) question
2.1	If yes, please give details	Child (sub) question
3	Please indicate the dose in mg you have been taking for each day of the week:	Parent (main) question
3.01	Put "N/A" if your instruction was for <7 days and this day was not included	Child (sub) question
3.02	Put "0" if the day was included but you took no warfarin on that day.	Child (sub) question
3.1	Sun	Child (sub) question
3.2	Mon	Child (sub) question
3.3	Tue	Child (sub) question
3.4	Wed	Child (sub) question
3.5	Thu	Child (sub) question
3.6	Fri	Child (sub) question
3.7	Sat	Child (sub) question
4	I confirm these answers are all accurate and complete	Parent (main) question

Click on a question to edit it

Use the navigation buttons to move between portal questionnaires.

Click the List button to display all existing portal questionnaires in a searchable list.

Click the New button to create a new portal questionnaire...

Navigation buttons: Previous, First, Next, Last, New, Save, List, Print, Refresh

1 / 2

The Portal Questionnaire form in Detail view

PortalQuestionnaire

Search

Search for:

Portal Questio

Code name

Search

Portal Questionnaire	Code name	In Use
<div><div></div>INR questionnaire</div>	QINR	<input checked="" type="checkbox"/> <div><div>You cannot delete questionnaires that are in use</div></div>
<div><div></div>HAS-BLED proforma</div>	HAS_BLED	<input checked="" type="checkbox"/> <div><div>You cannot delete questionnaires that are in use</div></div>

The Portal Questionnaires form displayed as a searchable list.

© 2024

### 6.35.2.2 Adding Questions

PortalQuestionnaire ✕ PortalQuestionnaireQuestion ✕

PortalQuestionnaire: INR questionnaire > PortalQuestionnaireQuestion: Since your last INR, have you experienced any bleeding

Number: 1

Question: Since your last INR, have you experienced any bleeding or bruising?

Type: Dropdown list

Multiple selection? ☐ Check this box if the user can select more than one answer (only available for drop down lists)

Before changing or deleting an option, check whether the option is used in child questions to make their answers required (the Required setting of questions listed below will need to be updated if you change or remove the option).

Add a new record → Options

Answer	Used in Questions
Yes	1.1 & 1.2
No	1.3

Relationship: Parent (main) question

Answer Required: Yes

In Use: ☒

Must the response answer this question?

The type of control used to answer the question, i.e. radio buttons, free text, drop down list, checkbox

For multiple choice questions (radio buttons, dropdown list), specify the options. (You must save a new question before you can add options)

Each parent question is displayed in its own section. Child questions are displayed within their preceding parent's section and formatted to show they extend the parent, e.g. "If you answered yes, please give details".

### Answer Required Options for Child Questions

The *Answer Required* options for *parent* questions are Yes or No. Child questions have an additional option: *If parent answer is...*

Answer Required: If parent answer is

Yes

No

When you choose *If parent answer is* as the *Answer Required* setting, the options for the parent question are displayed so you can choose the appropriate one. N.B. if the parent question is free text, a free text field is displayed so you can type the expected answer. Using this option with free text is not recommended as there is no guarantee that the responsee will type or spell their response the same way.

If an option for a multiple choice question is used to make a child question mandatory, the question number of the child question is displayed in the *Used in Questions* column.

### Deleting Questions

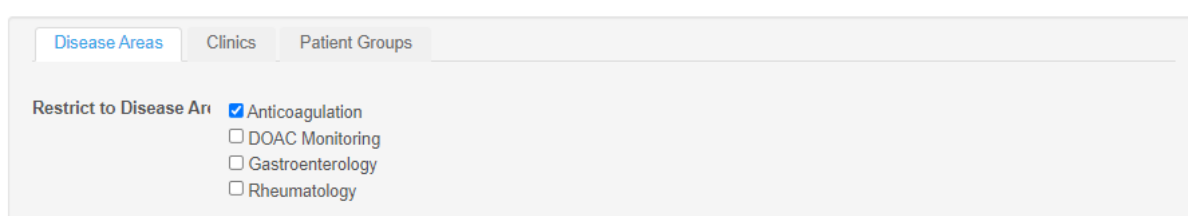
When designing questionnaires, it is sometimes necessary to add and remove questions, renumber questions, or change their relationships. DAWN does not make this difficult by preventing you from deleting or renumbering child questions or parent questions that have children. However, please take care, when deleting or renumbering questions, that the remaining questions still have an appropriate relationship with their neighbours. Likewise, if you delete an option for a question that is used to make a child question mandatory, remember to edit the child question to update this setting.

### 6.35.2.3 Restricting questionnaires to specific groups of patients

You may wish to create questionnaires for specific groups of patients. Ideally, you only want these patients to be able to complete these questionnaires. The *Restrict Access* tab allows you to restrict who can access a questionnaire based on:

- Disease Area
- Preferred Clinic
- Patient Group

## The Disease Area tab

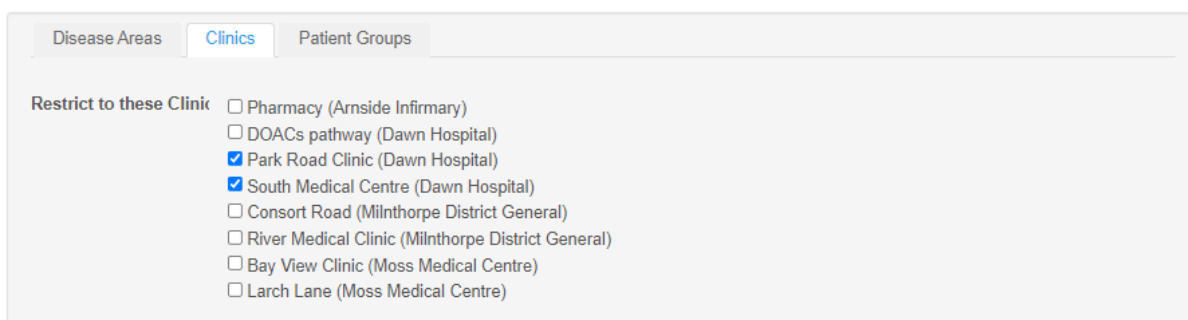


The screenshot shows the 'Disease Areas' tab selected. Under the heading 'Restrict to Disease Area', there are four checkboxes: 'Anticoagulation' (checked), 'DOAC Monitoring', 'Gastroenterology', and 'Rheumatology'.

Selecting one or more disease areas restricts the questionnaire to patients with non-stopped treatment plans in that or those disease areas. If you do not select any disease areas, the questionnaire is available to patients in all disease areas, regardless of their treatment plan status.

Only *in use* disease areas are available for new selections.

## The Clinics Tab



The screenshot shows the 'Clinics' tab selected. Under the heading 'Restrict to these Clinic', there are eight checkboxes: 'Pharmacy (Arnside Infirmary)', 'DOACs pathway (Dawn Hospital)', 'Park Road Clinic (Dawn Hospital)' (checked), 'South Medical Centre (Dawn Hospital)' (checked), 'Consort Road (Milnthorpe District General)', 'River Medical Clinic (Milnthorpe District General)', 'Bay View Clinic (Moss Medical Centre)', and 'Larch Lane (Moss Medical Centre)'.

Selecting one or more clinics restricts the questionnaire to patients with the selected clinic as their preferred clinic. Only *in use* clinics for selected disease areas are displayed, unless you have not selected any disease areas, in which all *in use* clinics are displayed.

If you select disease areas and clinics, the patients must have a non-stopped treatment plan for a selected disease area **and** have a selected clinic as their preferred clinic.

## The Patient Groups Tab

Disease Areas   Clinics   **Patient Groups**

Restrict to these Patient Groups:

- ☐ Audit (Dawn Hospital)
- ☐ PTS Audit (Dawn Hospital)
- ☐ DNA DISCLAIMER (Dawn Hospital)
- ☐ Self tester (Dawn Hospital)
- ☐ Audit (annual) (Dawn Hospital)
- ☐ For Boots (Dawn Hospital)
- ☐ mg education patient group (Dawn Hospital)
- ☐ Call patient (Dawn Hospital)
- ☐ Do not call (Dawn Hospital)
- ☐ PESI0 (Dawn Hospital)
- ☐ PESI1 (Dawn Hospital)
- ☐ Large font (Dawn Hospital)

Selecting one or more Patient Groups restricts the questionnaire to patients who are members of one of the selected groups.

If you select disease areas and patient groups, then patients must have a non-stopped treatment plan in one of the selected disease areas **and** be a member of one of the selected groups.

If you select clinics and patient groups, patients must have one of the selected clinics as their preferred clinic **or** be a member of one of the selected groups.

If you select disease areas, clinics and patient groups, the patients must have an non-stopped treatment plan in one of the selected disease areas **and either** have a selected clinic as their preferred clinic **or** be a member of one of the selected patient groups.

### 6.35.3 Viewing patient portal Questionnaires

Once a patient (or HCProfessional on behalf of a patient) has completed a questionnaire in the portal it can be viewed on the patient record in the questionnaires tab:

Graph   History   Personal   Treatment plans   **Questionnaires 2**   Test Results   Interface Warnings

Questionnaires   **Portal Questionnaires 2**

→ Portal Questionnaires 1 - 7 / 7

Questionnaire Name	Status	Answered Date
INR questionnaire	Processed	25/09/2023 09:30
Testing All Question Types	Processed	18/09/2023 10:11:02
Lancet Anticoagulation Questionnaire	Processed	22/07/2022 08:34:43



### 6.35.3.1 Portal Questionnaire Answers

Portal Questionnaire	Patient Self Testing Questionnaire		
Completed By	Patient		
Status	Submitted	Answered Date	26/09/2022
Answers			
0	Please enter your INR reading	2.5	
1	Since your last INR, have you experienced any bleeding or bruising?	No	
1.1	If Yes, please give details		
1.2	If yes, what level of medical assistance did you receive?	No option selected	
1.3	If No, have you experienced any other possible side effects of your therapy?	No	
2	Since your last INR, have you had any change in medications?	No	
2.1	If yes, please give details		
3	Please indicate the dose in mg you have been taking for each day of the week:		
3.01	Put "N/A" if your instruction was for <7 days and this day was not included		
3.02	Put "0" if the day was included but you took no warfarin on that day.		
3.1	Sunday dose	5	
3.2	Monday dose	5	
3.3	Tuesday dose	5	
3.4	Wednesday dose	5	
3.5	Thursday dose	5	
3.6	Friday dose	5	
3.7	Saturday dose	5	
4	I confirm these answers are all accurate and complete	True	

### 6.35.4 Portal Questionnaire Actions

You can optionally add an action to a portal questionnaire. When a new set of answers is received from the Portal, DAWN automatically attempts to complete the action.

For example: Add Answers to Treatment Record.

Setting this action will add the portal questionnaire answers to the treatment record:

Dosing
Contacts
Letters
Drugs
Events 1
Procedures
Reviews
Reminders 1
Groups
Documents

INR:  ★ ✓
Date: 11/09/2023
Mon 11/09/2023, 08:00 - 21:00: Self-Testers Reschedule

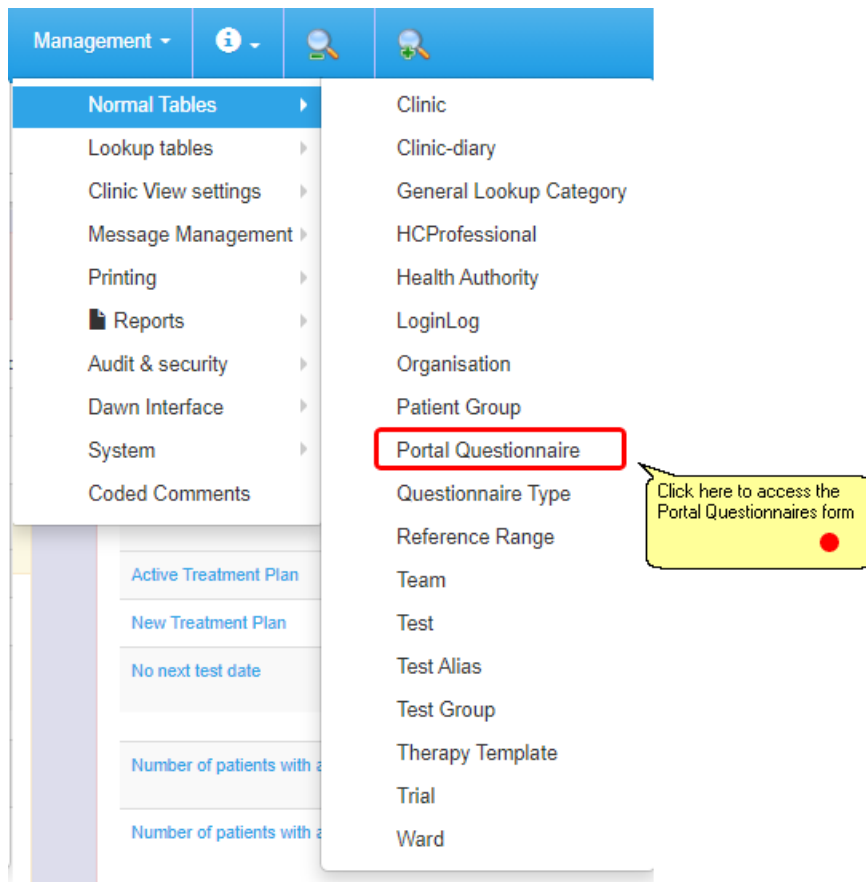
Treatment Notes 1
Portal Questionnaire Notes 1

11/09/2023 10:24:23 - Portal Questionnaire "INR questionnaire"  
Answers submitted on 11/09/2023 10:23:23 by Patient

1 Please enter the date you took your INR reading - [05/05/2022]  
2 Please enter your INR reading - [3.2]  
3 Have you made any changes to your diet, or have you started taking any supplements, since your last INR reading? - [No]  
4 If yes, please give us the details here: - [Started taking vit d]  
5 Have you missed any of your anticoagulation medication doses, or taken any extra doses, since your last INR? - [No]  
6 If yes, please give us the details here: - []

Accept INR
DNA
Un-schedule
Scheduled

### 6.35.4.1 Adding a Portal Questionnaire Action



#### 6.35.4.1.1 Select the Portal Questionnaire to Add an Action

From the list of portal questionnaires, select the one you want to add an action to.

10	If yes, please give us the details here:
11	Have you made any changes to your medications since your last INR test?
12	If yes, please give us the details here:
13	Do you smoke or use any tobacco products?
14	Do you drink alcohol?
15	Are there other points you would like to bring to the attention of your anticoagulation service provider?

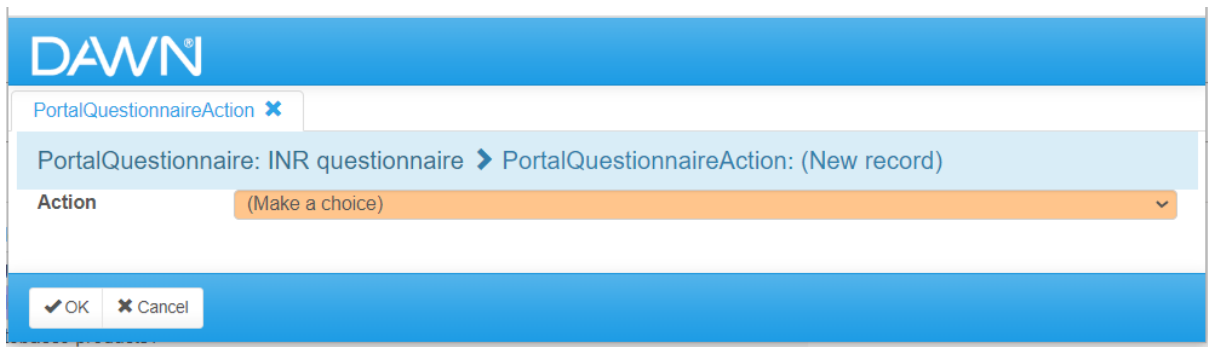
  

➕ Add a new record
Required Action ⓘ

Click to add a new action

There are no items to display

Select the Action for the drop down list

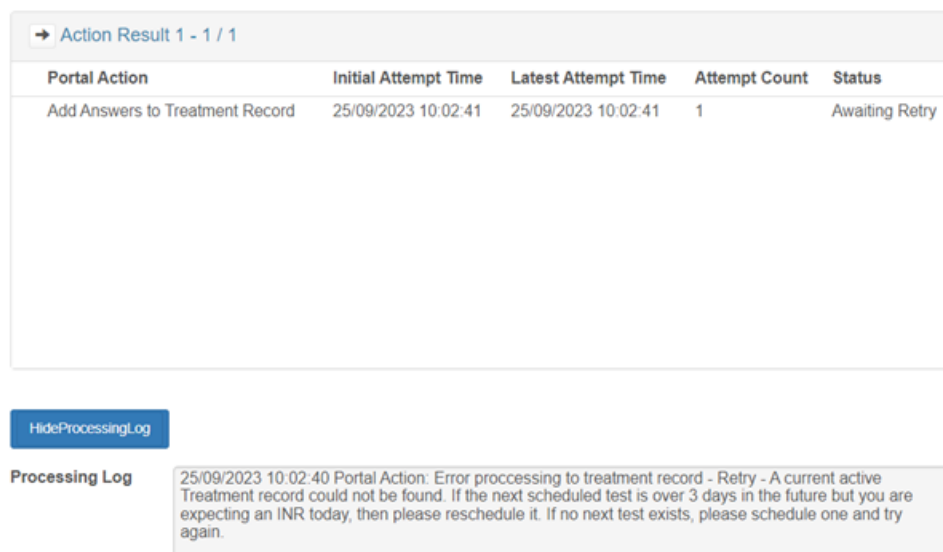


The screenshot shows a DAWN application window with a blue header. Below the header, there is a breadcrumb trail: "PortalQuestionnaireAction" with a close icon. The main content area shows "PortalQuestionnaire: INR questionnaire" followed by a right-pointing chevron and "PortalQuestionnaireAction: (New record)". Below this, there is a label "Action" and a dropdown menu with the text "(Make a choice)". At the bottom of the dialog, there are two buttons: "OK" with a checkmark icon and "Cancel" with an 'X' icon.

Click OK to save.

#### 6.35.4.2 Failed Portal Questionnaire Actions

If the action fails for a predictable and potentially transient reason, the action is re-queued and is retried after a set *retry interval*.



The screenshot shows a table titled "Action Result 1 - 1 / 1". The table has five columns: "Portal Action", "Initial Attempt Time", "Latest Attempt Time", "Attempt Count", and "Status". There is one row of data. Below the table, there is a button labeled "HideProcessingLog" and a "Processing Log" section containing a detailed error message.

Portal Action	Initial Attempt Time	Latest Attempt Time	Attempt Count	Status
Add Answers to Treatment Record	25/09/2023 10:02:41	25/09/2023 10:02:41	1	Awaiting Retry

HideProcessingLog

**Processing Log**

25/09/2023 10:02:40 Portal Action: Error processing to treatment record - Retry - A current active Treatment record could not be found. If the next scheduled test is over 3 days in the future but you are expecting an INR today, then please reschedule it. If no next test exists, please schedule one and try again.

DAWN keeps retrying the action for a specified *retry period*, after which, if it still has failed to complete, it is marked as errored.

The screenshot shows the 'PortalQuestionnaireAnswers' tab in a web application. At the top, there are three tabs: 'PortalQuestionnaire', 'Patient', and 'PortalQuestionnaireAnswers'. Below the tabs, there is a section titled 'Action Result 1 - 1 / 1'. This section contains a table with the following data:

Portal Action	Initial Attempt Time	Latest Attempt Time	Attempt Count	Status
Add Answers to Treatment Record	23/09/2023 10:04:04	25/09/2023 10:04:49	3	Errored

Below the table, there is a 'HideProcessingLog' button. Underneath this button is a 'Processing Log' section. The log contains the following text:

```

expecting an INR today, then please reschedule it. If no next test exists, please schedule one and try again.
25/09/2023 10:04:49 Portal Action: Error processing to treatment record - Retry - A current active Treatment record could not be found. If the next scheduled test is over 3 days in the future but you are expecting an INR today, then please reschedule it. If no next test exists, please schedule one and try again.
25/09/2023 10:04:49 Portal Action: Retry period expired - action result marked as errored
25/09/2023 10:04:49 Portal Answers: State Transition, MarkAsErrored completed successfully
  
```

The *retry interval* and *retry period* are pre-set appropriately for each type of action. These can be viewed (but not edited) from the system menu Lookup Tables under Portal Action:

Action Name	Retry Interval (Minutes)	Retry Period (Hours)
Add Answers to Treatment Record	1	48

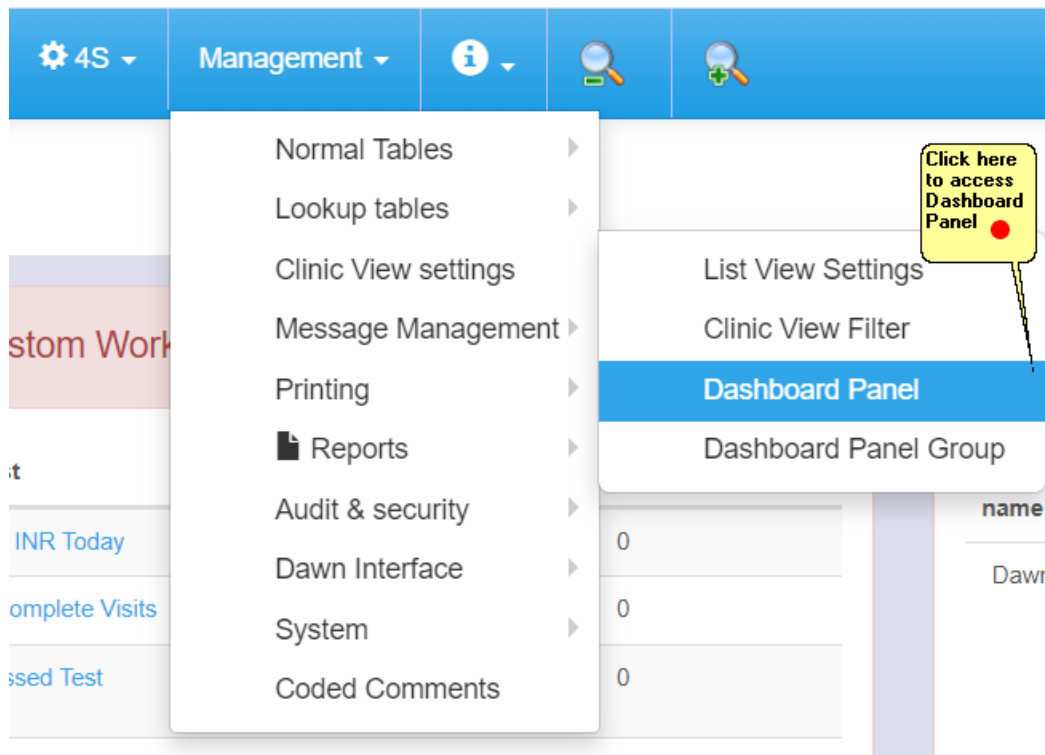
For example, the *Add Answers to Treatment Record* action updates a current open treatment record with a summary of the patient's answers. If no matching treatment record can be found, the action is retried every minute for the next 48 hours, during which time, if a new INR result is received or the patient's next test is rescheduled for today, the record is then matched and the answers added.

You can manually retry an *Errored* or *Processed* action.

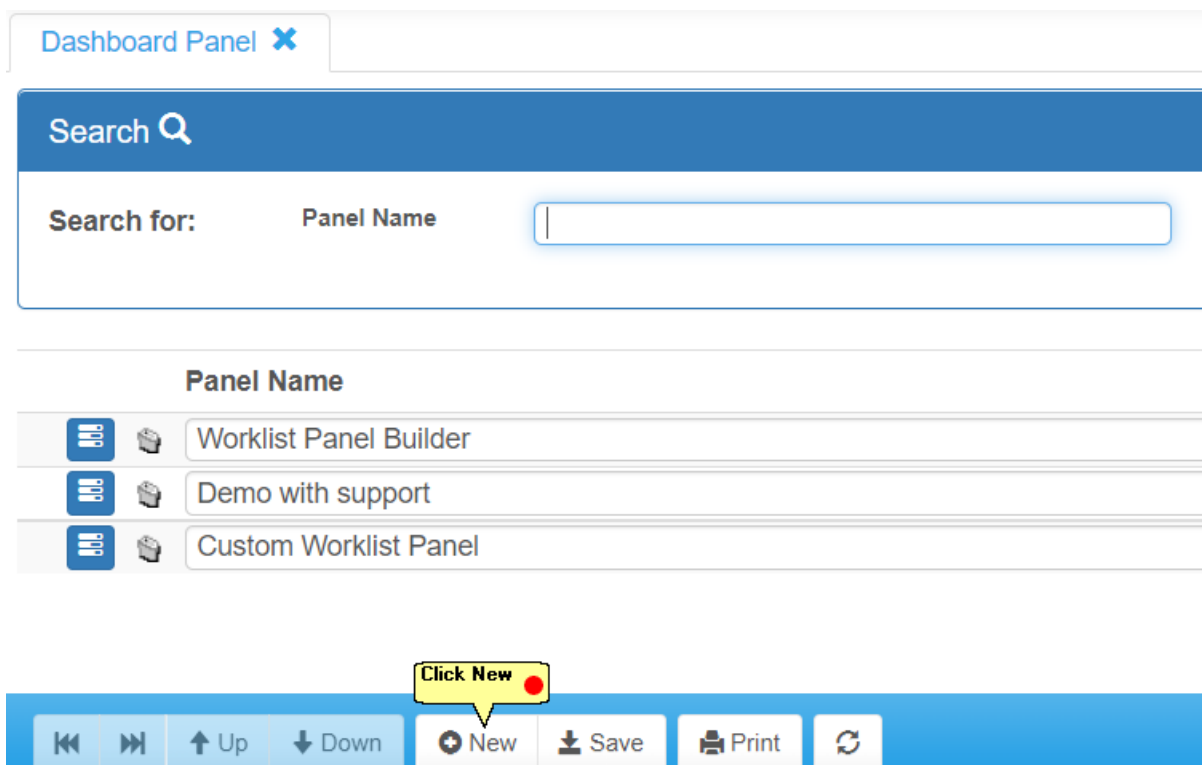
You can, at any stage of the process, mark the completed questionnaire as *Reviewed* to show that you have read the answers. Marking answers as reviewed removes the record from list views of newly completed questionnaires and cancels any further attempts to retry failed actions.

## 6.36 Creating Dashboard Panels from List views

The first step is to create a dashboard panel.



### 6.36.1 Add a dashboard panel



### 6.36.2 New Dashboard Panel

DAWN®

Dashboard Panel ✕

Panel Name Custom Worklist Panel

Split counts by therapy type ☐

You will need to save this new record before you can add related records

Click OK to save

✓ OK ✕ Cancel

### 6.36.3 New Dashboard Panel Group

Dashboard Panel ✕

Panel Name Custom Worklist Panel

Split counts by therapy type? ☐

Click to add new

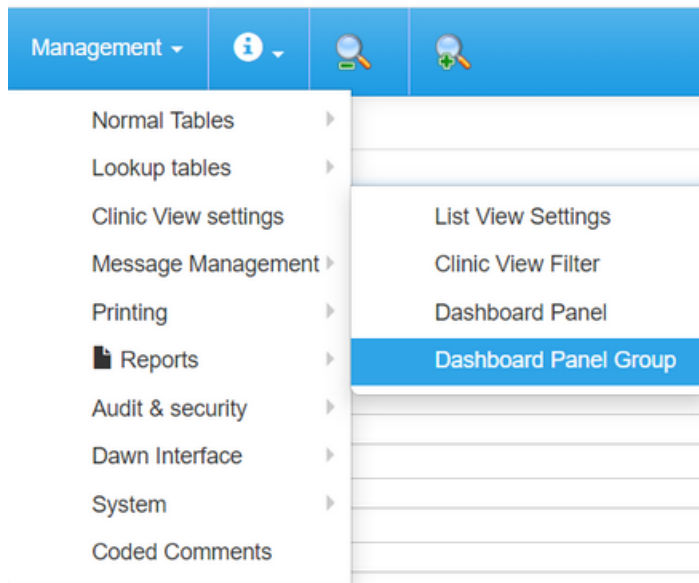
+ Add a new record Dashboard Panel Group

There are no items to display

Applicable for Anticoagulant Application Areas only: The 'Split counts by therapy type?' determines whether the dashboard counts are split by the AC Therapy (Induction, Maintenance, Manual/Bridging). Induction is only included if there is at least one non-stopped Treatment plan in the DAWN system, but this behavior can be overridden when calling the function in the Disease Area.

If you want to split the counts by therapy type then the following field must be present on the list view: ACTherapy Table Name: TreatmentPlan

Alternatively, you can create a new Dashboard Panel Group from:



### 6.36.4 Dashboard Panel Group

Dashboard Panel Group ✕

Caption	No INR Today	Enter the name of the Dashboard panel group
ListView	Work List	This is the list view you want to use
Listview Filter	Scheduled Tests	You must select a list view before selecting a filter. Changing the list view will clear the list view filter selection.
Dashboard Panel	Custom Worklist Panel	The Panel you want this to be a part of
Start Date Query	Date()	A date expression, e.g. Date(), Date() - 1, Date() + 7, or DateSerial(2022, 02, 15)
End Date Query	Date()	If the date query entered for start or end date is not valid you will not be able to save the record.
Alert when Maintenance is over	0	The threshold above which the panel turns red for maintenance patients. If the Dashboard panel is not split by AC Therapy this caption says 'Alert when over'
Alert when Manual/Bridging is over	0	AC Therapy only
Never Alert	<input type="checkbox"/>	Select this option if you want the count to never display in red.

**Dashboard Count Information:**

- The date query will be: Today
- Separate counts will be displayed for Maintenance and Manual/Bridging. A count for Induction will also be displayed if there are any active Induction patients in DAWN
- The Dashboard and count for Induction patients will be displayed in red if the count is greater than 0 (This cannot be changed)
- The Dashboard and count for Maintenance patients will be displayed in red if the count is greater than 0 (1 or above)
- The Dashboard and count for Manual/Bridging patients will be displayed in red if the count is greater than 0 (1 or above)

Order Number: 10

The order of the Dashboard Panel count in the group. If this is blank, it is treated as 0. If two Panel Group items have the same order number then they are ordered alphabetically based on the caption

Click to save

Navigation: New, Delete, Save, List, Print, Refresh


Page: 1 / 15

### 6.36.5 Displaying the Dashboard Panel on the Home Page

Add the Name of the panel to the Disease area 'Front Page Tallies HTML':

eg. `<%CreateDashboardPanelFromListViews(Context, "Custom Worklist Panel", False)%>`

This will create a panel on the front screen similar to the following:

Custom Worklist Panel 			
List	Induction	Maintenance	Manual/Bridging
No INR Today	0	0	0
Incomplete Visits	0	0	0
Missed Test	0	77	0
Active Treatment Plan	0	83	0
New Treatment Plan	0	0	0
No next test date	1	6	0

#### Example Front Page Tallies HTML

The below is an example of using the CreateDashboardPanelFromListView function with the other standard front page Dashboard Panels:

```
<div>
  <div class="row">
    <div class="col-lg-6">
      <!--Worklist panel-->
      <%CreateDashboardPanelFromListViews(Context, "Custom Worklist Panel", False)%>
      <!--licenses dashboard-->
      <%MakeLicensesPanel(context)%>
    </div><!--col-lg-6-->
    <div class="col-lg-6">
      <!--DATABASE Dashboard-->
      <%MakeDatabasePanel(Context)%>
      <!--messaging panel-->
      <%MakeMessagingDashboardPanel(Context)%>
      <!--Inbound Interface-->
      <%MakeInboundInterfacePanel(context)%>
    </div><!--col-lg-6-->
  </div>
</div>
```



### 6.36.6 Creating the Dataexchange of the Dashboard Panel

The screenshot shows the 'Polar DataExchange' window with a 'Dashboard Panel' tab selected. The 'Panel Name' field contains 'Custom Worklist Panel'. The 'Split counts by therapy type?' checkbox is unchecked. A blue button labeled 'Create DataExchange' is highlighted with a yellow callout box that says: 'Click on Create DataExchange and select the location you want to save it to'. Below this, there is a section titled 'Dashboard Panel Group' with a table. The table has a header 'Caption' and one row with a trash icon and the text 'No INR Today'. A button 'Add a new record' is located above the table.

### 6.36.7 Importing Dataexchange of the Dashboard Panel

To import the data into a DAWN system, go to DataExchange and select the DataExchange file.



**Ensure you use the 'Import' tab and not 'Customised Import' unless you are fully competent with what you are doing, as this import will also update the list views and filters referenced in the panel.**

The screenshot shows the 'Polar DataExchange' window with the 'Import' tab selected. Below the tabs are three buttons: 'Export', 'Import' (highlighted), and 'Customized import'. A list of items is displayed, including 'FSTPanel' (with sub-item 'Custom Worklist Panel') and 'ListViewFSTPanelGroup' (with sub-items 'No INR Today', 'Incomplete Visits', 'Missed Test', 'Active Treatment Plan', 'New Treatment Plan', and 'No Next Test'). A blue button labeled 'Perform import/updates' is highlighted with a yellow callout box that says: 'Select the Perform import/updates button. This will import and update the Dashboard Panel and Dashboard Panel Group Items. It will import new list views and filters if they do not exist but will not update existing ones.'

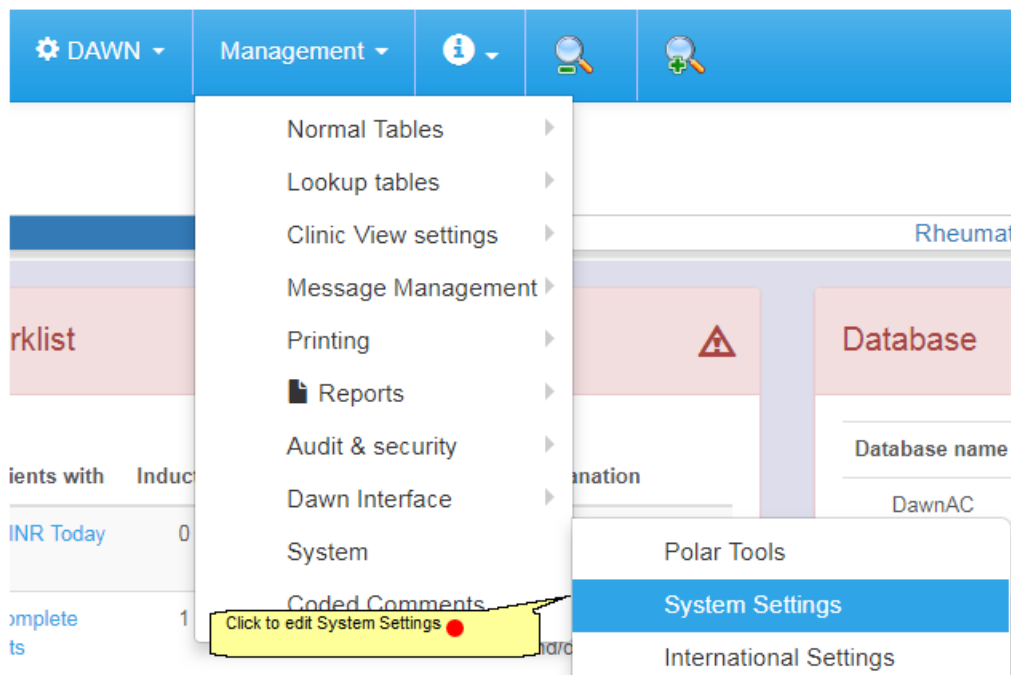
## 7 Editing System Settings



**Editing System Settings incorrectly could cause the system to stop working in a safe manner. Please consult 4S before making any changes to these settings**

System settings are global settings that help tailor the behaviour of different aspects of the application. This section does not discuss what all the different system settings do as that would take them out of context. Instead they are discussed individually in the context of the chapters to which they relate.

However, this section describes how to amend a system setting.



For a full list of System Settings, please refer to the section 'System Settings'

## 7.1 List of system settings

System Settings

Search

Sorting: By Type/Name

Search for: Name Value

Customizations

Name	Value	Description
AC_DisplayDosingInstructions_ShowTotalMgInDecimals	0	Should the Total Mg line of a dosing instruction always be displayed in decimals regardless of whether the tablet lines are shown in fractions. 0=No; 1=Yes
AC_DisplayDosingInstructionsInDecimals	0	Must the AC dosing-instructions be displayed using fractions (0) or decimals (1).
AC_DisplayTextStyleDosingInstructions	0	Must the AC dosing-instructions be displayed in text-style (1) instead of HTML-formatted style (0)
AC_LMWH_PatientWeightMeasurementExpiryIntervalDays	30	How long is the measurement of the patient's weight valid for prescribing weight-based LMWH-drugs

Previous
Next
Down
Save
Print
Refresh
1-20 / 165

## 8 List Views - What are They?

List Views are interactive lists of patient records selected and ordered on predefined criteria.

Use List Views to quickly access records for

- patients attending today,
- patients with abnormal INR results,
- reminders outstanding, ...

Up to 20 List Views can be configured in your DAWN system.

The user can apply filters such as date range or patient status to refine the list of records viewed. A default filter may be set for the top filter and the date filter on each list view and the user's selection of other filters will remain selected if the user chooses another list to view. A With / Without option is available for the top filter only to view a list of patients without a test scheduled for example.

NB - the With / Without option only applies to the top filter.

Bulk messages can be sent as letters, faxes or e-mails for patients identified on a List View.

If you edit/amend List Views within the system, remember to check all changes thoroughly. This can be done using a 'dummy' patient within the system.

Click [HERE](#) to look at how to view a List View.

### 8.1 Accessing List Views

From the DAWN front page choose List View.

The screenshot shows the DAWN system interface. At the top is a blue navigation bar with the DAWN logo and several menu items: Home, Patient, Lists, Calls, Reports, DAWN, Management, Help, and a globe icon. Below the navigation bar, the version 'Version 8.0.0 (1357)' is displayed. A yellow callout bubble points to the 'Lists' menu item with the text 'Click here to go into the list views'. The main content area is divided into two columns. The left column contains a 'Welcome DAWN' section with a user profile 'Support DAWN' and a 'Location for printing' dropdown set to 'Office'. Below this is a 'Conditions of Use' section with a list of 10 warnings. A yellow callout bubble points to the 'Conditions of Use' section with the text 'Or click on any of the hyperlinks to take you to a list of patients meeting the criteria'. The right column contains a 'Worklist' section with a table of patient records.

Patients with	Induction	Maintenance	Manual/ Bridging	Explanation
No INR Today	0	14	0	Awaiting result / yet to attend
<a href="#">Incomplete Visits</a>	0	4	0	Dose needs entering and/or authorising
Missed Test	2	196	8	Needs rescheduling
Active Treatment Plan	2	631	9	Non-stopped treatment plans
No next test date	0	32	1	Needs scheduling

8.2 List Views

DAWN

[Home](#)[Patient](#)[Lists](#)[Calls](#)[Reports](#)[DAWN](#)[Management](#)[Help](#)

List View

Filter Records

With / Without filter only applies to the top filter only

With

Incomplete Visits

Dates

On or Before

Start

08/12/2017

Apply

Clinic

Therapy

HC Professional

Organisation

Patient Group

Message

Filter Date

With Incomplete Visits

On or Before 08/12/2017

Up to 20 list views are displayed in these tabs - click on the relevant tab

list

Annual Review

Hold Monitor Listview

In reprocessing

Poor Performing Patient List

Reminders new

Non attendance

Status

No Next Test Date

Procedures

Events

Risks

Dabigatran

Non-VKA

Treatment Notes

Postal Clinic

Dose

4 records found.

Type	Name	Test Date	Time	INR	Target	TIR	Drugs	Events	Procedures	Risk Class
	ANDERSON, Luke	06/12/2017	09:00	0.00	2.50	68%				Low

In Range

Type	Name	Test Date	Time	INR	Target	TIR	Drugs	Events	Procedures	Risk Class
	ADAMS, Julie	06/12/2017		2.60	2.50	78%				Paediatric Patient
	ADAMS, Mary	27/11/2017		2.10	2.50	73%				Low
	TARGARYEN, Daenerys	29/11/2017		2.90	2.50	97%	Yes			High

The available filters for this list view are displayed here. You can choose several at once to find the correct subset of patients.

Please check the list views and filters after a system installation or upgrade

The available filters for this list view are displayed here. You can choose several at once to find the correct subset of patients.

Each patient record is displayed here - click on the patient details to access that patient record (you can come back to the list later).

If an expected patient record does not appear, alert your administrator or 4S Information Systems Ltd.

Ensure that the list view filters are clearly labelled to prevent confusion if adding new ones within the system.

Print the list by clicking here

OK

Print

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## 9 Adding a New Anticoagulation Patient



The most important step before adding a patient in DAWN is to check that patient does not already exist and avoid creating duplicate patient records.

The screenshot shows the DAWN software interface. At the top is a blue navigation bar with the DAWN logo and several menu items: Home, Patient (with a magnifying glass icon), Lists, Calls, Reports, DAWN (with a gear icon), Management, and Help. Below the navigation bar, the version 'Version 8.0.' is displayed. A yellow callout box points to the 'Patient' search bar with the text 'To search for a patient, click here.' Another yellow callout box points to the 'Patient' search bar with the text 'TIP - You should always use the patient search to search for a patient before adding them from scratch, as this will prevent duplicate entries from being added.'

The main content area is titled 'Anticoagulation'. It is divided into two columns. The left column contains a 'Welcome DAWN' section with a user profile icon and a message: 'You are currently logged on as 'Support DAWN' with user profile 'System Manager'.' Below this is a 'Location for printing' dropdown menu set to 'Office'. The right column contains a 'Worklist' table.

Patients with	Induction	Maintenance	Mani Brid
No INR Today	0	14	
Incomplete Visits	0	0	
Missed Test	2	132	
Active Treatment Plan	2	630	
No next test date	0	28	

### 9.1 Search for a patient



To avoid unsafe duplicate patient records, ensure you click the 'Show All' to search for patients in all application areas.

Enter the patient details to search on.

4S Dawn Clinical Software recommend you search firstly on the unique patient identifier and secondly on other patient identifiers such as name and date of birth.

Patient ✕

**Search** 🔍

**Selection:**

**Search for:**

Last name	<input type="text" value="Banks"/>	First name	<input type="text" value="J"/>	MRN	<input type="text"/>
NHS No	<input type="text"/>	Town	<input type="text"/>	County	<input type="text"/>
Post Code	<input type="text"/>	Sex	<input type="text" value="-All-"/>	Dateofbirth	<input type="text"/>
Date of Dea	<input type="text"/>	Language	<input type="text"/>	Status	<input type="text" value="-All-"/>
Home phon	<input type="text"/>	Mobile phor	<input type="text"/>	Work phone	<input type="text"/>
Email addre	<input type="text"/>	Next of kin	<input type="text"/>	Next of kin	<input type="text"/>

To avoid unsafe duplications, ensure you search all applications areas by clicking on 'Show all' before searching

	Last name	First name	Age	MRN	NHS No	Dateofbirth	Address 1	Address 2	Town	County	Post Code	Sex
<input type="button" value="New"/>	BANKS	James	92	X64922	5933344594	24/05/1927	14 ST HELENS GARDENS		CLIFTON	YORKS	YY1 1YY	Male
<input type="button" value="New"/>	BANKS	Julia	47	750000175		07/09/1972	12 Elm Court	Dutton	Bakersfield	Lancashire	LA5 7TH	Fem

If you don't find the patient in the list, click on New

1-2 / 2\*

⚠ The most important step before adding a patient in DAWN is to check that patient does not already exist.

To avoid unsafe duplications in DAWN, check if a demographics interface is adding patients to DAWN, before adding any patients manually

## 9.2 New Patient Wizard Screen

New Patient Wizard ✕

Step 1 - Patient Details | Step 2 - Treatment Plan Details | Step 3 - Next Of Kin Details | Step 4 - Clinical Details | Step 5 - Contact Details

Last name

First name

Sex

Title

Date of birth

MRN

NHS No

NHS No status

Address 1

Address 2

Town

County

Post Code

Notes

Ethnic origin

Primary language

Home phone

Mobile phone

Work phone

Fax number

Email address

Messaging method

Risk class

Other contact numbers

Other e-mail

You will need to save this new record before you can add related records

Previous step | Finish | Cancel | Next step

OK | Cancel

If the Finish option is chosen at this point without having entered any treatment plan details, and a DAVIN system setting specifies that the treatment plan is either active or active admitted by default, the system will say that you need to enter the mandatory treatment plan information before finishing. If the Finish option is chosen and a DAVIN system setting specifies that the treatment plan is either admitted or undocoded by default, a screen will appear asking whether you wish to enter the information later or move onto the treatment plan. If the finish option is chosen without having entered any treatment plan information, the patient wizard will appear the next time you search for this patient.

Click here to move onto the next step and start adding treatment plan details.




## 9.2.1 Adding a patient picture

Enter topic text here.

New Patient Wizard ✕

Step 1 - Patient Details   Step 2 - Treatment Plan Details   Step 3 - Next Of Kin Details   Step 4 - Clinical Details   Step 5 - Contact Details

Last name: Test  
 First name: Harold  
 Sex: Male  
 Title:  
 Date of birth: 01/01/1951   Age: 68  
 MRN: 3322899  
 NHS No:   
 Address 1: 4 The Square  
 Address 2:  
 Town: Minthorpe  
 County: Cumbria  
 Post Code: LA7 7QJ  
 Notes:

Ethnic origin:  
 Primary language:  
 Home phone:  
 Mobile phone:  
 Work phone:  
 Fax number:  
 Email address:  
 Messaging method:  
 Risk class:

Other contact numbers  
 Add a new record  
 There are no items to display

Previous step   Finish   Cancel   Next step

Adding a picture can prevent problems for patients with the same names

Correct information can be added here, with the option to add additional information on the tabs below

Permanent patient notes can be added into this box. These notes will appear in the bottom right section of the main patient screen once completed.

You can click on the Cancel option if you wish to discard these new patient details.

If the Finish option is chosen at the point without having entered any treatment plan details, and a C4W/N system setting specifies that the treatment plan is either active or active identified by default, the system will say that you need to enter the mandatory treatment plan information before finishing.  
 If the Finish option is chosen and a C4W/N system setting specifies that the treatment plan is either identified or undecoded by default, a screen will appear asking whether you wish to enter the information later or move onto the treatment plan. If the Finish option is chosen without having entered any treatment plan information, the patient wizard will appear the next time you search for this patient.

Click here to move onto the next step and start adding treatment plan details

## 9.2.2 Wizard Screen - Next of Kin Details

New Patient Wizard ✕

Step 1 - Patient Details   Step 2 - Treatment Plan Details   Step 3 - Next Of Kin Details   Step 4 - Clinical Details   Step 5 - Contact Details

Name:  
 Address:  
 Home phone:  
 Mobile phone:  
 Work phone:  
 Fax number:  
 Email address:  
 Messaging method: (None selected)

Previous step   Finish   Cancel   Next step

Next of kin details can optionally be added here.

Click here if you wish to move to a previous step in the new patient wizard.

You can click finish here if you do not wish to add any clinical or contact details

Click here to move onto the next step and start adding clinical details

## 9.2.3 Wizard Screen - Clinical Details

New Patient Wizard ✕

Step 1 - Patient Details ▾ Step 2 - Treatment Plan Details Step 3 - Next Of Kin Details **Step 4 - Clinical Details** Step 5 - Contact Details

**Clinical Details**

Blood group (None selected) ▾  
 High risk ☐  
 Weight  lbs Measured at  BMI   
 Height  Inch Measured at  BSA

Add a new record Risks  
 There are 0 items to display  
 Any patient risks can be added here. If you add risks in this box, then they will also appear in red on the top left section of the main patient screen.

Add a new record Additional diagnoses  
 There are 0 items to display  
 Additional diagnoses (besides the primary diagnosis you added in the treatment plan step) can be added here

Add a new record Allergies  
 There are 0 items to display  
 Any patient allergies can be added here

Click here if you wish to move to a previous step in the new patient wizard.  
 Previous step

You can click finish here if you do not wish to add any contact details.  
 Finish

Click here to move onto the next step and start adding contact details.  
 Cancel

Next step >

Save

## 9.2.4 Wizard Screen - Contact Details

New Patient Wizard ✕

Step 1 - Patient Details ▾ Step 2 - Treatment Plan Details Step 3 - Next Of Kin Details Step 4 - Clinical Details **Step 5 - Contact Details**

Referring GP  
 Consultant

Add a new record Team members  
 There are 0 items to display  
 Treatment plan team members can be chosen here. These are healthcare professionals attached to the patient, ie, district nurses, care home managers, etc. These are then logged within the patient's treatment plan, and optionally messages can be sent to these HCPProfessionals, eg, letters, faxes, etc.

Click here to return to a previous step in the new patient wizard.  
 Previous step

Click here to finish the new patient wizard and go to the main patient screen.  
 Finish

Cancel

Next step <

## 9.3 Wizard Screen - Entering Treatment Plan

New Patient Wizard

Step 1 - Patient Details | **Step 2 - Treatment Plan Details** | Step 3 - Next Of Kin Details | Step 4 - Clinical Details | Step 5 - Contact Details

**Therapy**

Disease area: Anticoagulation

Primary diagnosis: (None selected)

AC Therapy: ☒ Induction ☐ Maintenance ☐ Manual/Bridging

Induction algorithm: (None selected)

Target range: (None selected)

Start date: 29/11/2017

Duration: (None selected)

First seen date:

Preferred clinic: Dalton Square Surgery GP (S)

Preferred time: To

Next test date:

Laboratory: (None selected)

**Dosing and Tablet Options**

Use Dosing Regime? (None selected)

Use Customised Tablet options?

Anticoagulant: Warfarin Record Dose As: Daily Average

Brand: UK Generic Split Tablet Into: Half a Tablet

Tablet Strength: Pills (5 mg)

Tablet Strength: Pills (3 mg)

Tablet Strength: Pills (1 mg)

Show Total mg Dose Line: Yes Dose In: Tablets

**Initial Status**

☒ Set the status of the TreatmentPlan to Active (Requires a Diagnosis, TargetRange, Regime, StartDate and Duration type)

☐ Set the status of the TreatmentPlan to Admitted

☐ Set the status of the TreatmentPlan to Active Admitted (Requires a Diagnosis, TargetRange, Regime, StartDate and Duration type)

☐ Decide later

Previous step Finish Cancel Next step

Save

### Entering a Start Date that is in the Future

If you enter a start date that is in the future, DAWN asks you to confirm this is correct by saving the record again.

Start date: 04/05/2016

Duration type: Long Term

First seen date:

Preferred clinic: Grove Road (Princ

Preferred time: From

Next test date:

Laboratory: (None selected)

Patient Tablet Options

Message from webpage

WARNING: The given StartDate is in the future

Save this record again to accept the given StartDate

OK

If the interface tries to add a patient and treatment plan with a start date in the future, the attempt is unsuccessful and the message is put on hold.

If you regularly add records for patients who are starting say tomorrow or next week, you can configure DAWN to only prompt you (or the interface) to confirm the start date if it is over a certain number of days in the future by changing the *TreatmentPlanStartDaysInFuture* system setting.

**SystemSetting**

Sorting: By Type/Name | Last changed

Search for: Name:  Value:

**Customizations**

Name	Value	Description	FieldType	MinValue	MaxValue
TreatmentPlanStartDaysInFuture	<input type="text" value="7"/>	How many days in the future can the treatmentplan start date be set before displaying a warning message	Integer	0	90

DAWN does not prompt you to confirm start dates unless they are over this number of days in the future.

## Patient Tablet Options

In previous versions of DAWN, you would choose a patient's tablet strength, instruction format, brand and whether to allow splitting tablets by selecting a preset combination of these options called a Dosing Regime. In version 7.9.48 onwards you can customise these options individually for each patient.

The Patient Tablet Option Default settings determine whether the New Patient Wizard defaults to *Use Dosing Regime* or *Use Customised Tablet Options*. If you have upgraded from a pre-7.9.48 version of DAWN, the initial default is *Use Dosing Regime*, but you can change this by amending your Patient Tablet Option Default settings.

To use patient specific tablet options:

- 1) Select the *Use Customised Tablet Options* radio button. An *Edit Tablet Options* button appears.

**Patient Tablet Options**

☐ Use Dosing Regime?

☒ Use Customised Tablet options?

- 2) Press the *Edit Tablet Options* button to display the *Patient Tablet Options Settings* form.

**Patient Tablet Options Settings - New record**

Anticoagulant:	<input type="text" value="Warfarin"/>	Record Dose As:	<input type="text" value="Daily Average"/>
Brand:	<input type="text" value="UK Generic (Warfarin)"/>	Split Tablet Into:	<input type="text" value="Half a tablet"/>
Dose In:	<input type="text" value="Tablets"/>		
Tablet Strength:	<input type="text" value="Pills (5 mg), Pink (UK Generic ("/>		
Tablet Strength:	<input type="text" value="Pills (3 mg), Blue (UK Generic ("/>		
Tablet Strength:	<input type="text" value="Pills (1 mg), Brown (UK Generi"/>		
Show Total MG Instructions Line:	<input checked="" type="checkbox"/>	<a href="#">View Sample Instructions</a>	

For new patients, the settings default to whatever is specified in your Patient Tablet Option Default settings. If you have upgraded from a pre 7.9.48 version of DAWN, the initial defaults are based on your most widely used dosing regime.

## 3) Change the settings as appropriate for this patient:

**Anticoagulant** e.g warfarin, phenindione etc (please note: the list only includes vitamin K antagonists - to select DOACs or other non VKA anticoagulants you must use a dosing regime).

**Brand** If you use different brands of this anticoagulant, select the appropriate brand. If you don't have any brands set up, leave this blank.

**Record Dose As** Choose whether you enter the dose as a daily average or the weekly total when you add history or manually update the numeric dose.

In the following example, the numeric dose is the daily average. If it was recorded as a weekly total the Dose field would be 28 and would be followed by a small "w". The instruction would be the same:

INR: 2.5 In Range ✓ Date: 03/05/2016

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (5 mg)							
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)	1	1	1	1	1	1	1
<b>Total mg</b>	4	4	4	4	4	4	4

☒ No dose change Dose: 4.00 d ✓

**Split Tablet Into** Options: half a tablet; quarter of a tablet or whole tablets. Should DAWN produce doses that can only be achieved by splitting a tablet or should it assume the patient will only use whole tablets?

**Dose In** This settings determines whether the instruction shows the number of tablets to take or the number of mg to take each day. For example:

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	4½	4½	4½	4½	4½	4½	4½

Dosing instruction in mg

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1½	1½	1½	1½	1½	1½	1½

Dosing instruction in tablets

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1½	1½	1½	1½	1½	1½	1½
<b>Total mg</b>	4½	4½	4½	4½	4½	4½	4½

Dosing instruction in tablets with total mg line (see also Show Total mg Dose line below)

If you wish to show the number of tablets and the total mg as in the

example immediately above, choose tablets then check the checkbox for *Show Total Mg Instruction Line* (see explanation below).

#### Tablet Strength 1

If you have chosen to *Dose In mg*, only one *Tablet Strength* option is displayed. If the patient has mixed tablets, select the smallest strength they use. DAWN then produces dosing instructions that are achievable with any combination of tablet strengths that includes this one.

If you have chosen to *Dose In tablets*, you can choose a single tablet strength or a combination of up to 3 strengths. When you select an option for *Tablet Strength 1*, a *Tablet Strength 2* drop down list is displayed. If you choose an option for *Tablet Strength 2* as well, a *Tablet Strength 3* drop down is displayed (you are limited to three strengths).

If you wish to select more than one tablet strength, choose the largest strength in the top box and the smallest strength in the bottom box (each drop down list only includes tablet strengths smaller than the one selected in the drop down list above).

If you select more than one tablet strength, DAWN produces instructions that show how to achieve the dose with the combination of tablets, for example:

+	-	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Coumadin								
Pills (5 mg) ..		1	1	1	1	1	1	1
Pills (2½ mg)			1		1		1	

Dosing instruction using two tablet strengths (without the Total mg line - see *Show Total Mg Dose Line* below)

#### Show Total Mg Dose Line

If you have chosen to *Dose In tablets*, you can include an additional line showing the total number of mg too. This is useful if you are using more than one tablet strength or a tablet strength that is greater than 1.

+	-	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Coumadin								
Pills (5 mg) ..		1	1	1	1	1	1	1
Pills (2½ mg)			1					
Total mg		7½	5	5	5	5	5	5

The *Show Total Mg Dose Line* option is disabled if you have chosen to *Dose In mg*.

## 9.4 New Patient Screen

**Callouts:**

- Click to view, add or edit contacts
- Click to view / send messages
- Click to view, add or edit drugs
- Click to view, add or edit events
- Click to view, add or edit procedures
- Click to view, add or edit reviews
- Click to view, add or edit reminders
- Click to view, add or edit groups
- Click to view, add or edit documents
- By default, the caption includes the patient's gender. This can be hidden using the system setting "PatientForm\_Caption\_DisplayGender".
- The patient's next appointment date and clinic is displayed here. If a next appointment has not been chosen in the new patient wizard, then the dosing tab will instead display a next appointment date box for you to fill in.
- Add general notes (Quick Notes) that are not related to a particular treatment record (adding, editing and deleting of Quick Notes is controlled by user profiles)
- If you wish to add any historical INR and dose information for the patient, click on this button. Please note, DAWN needs at least two INRs and doses to be able to automatically suggest a dose and test date next time.
- The system can also be configured to display the GP, consultant or laboratory in the header caption using the system setting "PatientForm\_Caption\_Field".

### 9.4.1 Adding History

**Callouts:**

- Enter a date, INR, dose and any miss days (if needed). Once you have entered this information, click on the Add History record button to add this into DAWN. You can repeat this process for each historical record that you wish to add.
- If you have finished entering history data and would like to hide this history line, click here on the cross icon to close.

## 9.4.2 The Personal Tab

Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info Next of kin Clinical Owners Account Audit

**Personal and Address**

Last name TARGARYEN

First name Daenerys

Age 30

MRN

NHS Number 012 345 6789

NHS Number status Number present but not traced

Address 1 4 The Square

Address 2

Town Milnthorpe

County Cumbria

Post Code LA7 7QJ

Sex Female

Title Miss

Date of birth 01/01/1987

Date of Death

Ethnic origin Caucasian

Language ICELANDIC

Status Active

Deactivate Deceased

**Contact**

Click here to view or add more personal details, eg phone numbers

**Additional**

Click here to view or add additional details, eg email address

### 9.4.2.1 Contact Info

Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info Next of kin Clinical Owners Account Audit

**Personal and Address**

Last name TARGARYEN

First name Daenerys

Age 30

MRN

NHS Number 012 345 6789

NHS Number status Number present but not traced

Address 1 4 The Square

Address 2

Town Milnthorpe

County Cumbria

Post Code LA7 7QJ

Sex Female

Title Miss

Date of birth 01/01/1987

Date of Death

Ethnic origin Caucasian

Language ICELANDIC

Status Active

Deactivate Deceased

**Contact**

Click here to view or add more personal details, eg phone numbers

**Additional**

Click here to view or add additional details, eg email address

Some of the field captions can be customised via system settings, for example:



### 9.4.2.1.1 Contact Info Main

Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info Next of kin Clinical Owners Account Audit

Personal and Address **Contact (main)** Contact (Additional)

Home phone 01539563091

Mobile phone 07527113321

Work phone 01539563092

Email address daenerys@targaryen.com

Fax number

Messaging method: Mail

## Messaging Method

For details of how the *Messaging Method* is used see Preferences for messaging by Patient

If you choose a method that relies on a particular contact detail (e.g. an email requires an email address, phone requires a phone number), you are prevented from saving the record if you have not entered the relevant contact detail. In other words you cannot select SMS if you have not entered a mobile number.

## Email with PDF attachment

**IMPORTANT:** *email with PDF attachment* is more robust choice for messages which risk being misinterpreted if they are formatted badly. Dosing instructions are a prime example. With simple email, the content is placed in the body of the email and relies on the recipient's email client to format the content correctly. Some clients may be more reliable than others. With *email with PDF attachment*, the content is saved to a PDF file (which will display the same way on any computer) and attached to a covering email.

## Can Also Receive Messages By:

When you first add a new record, the *Can Also Receive Messages By* section does not include any options except *Mail*. As you add different contact details such as email address, phone numbers, or fax numbers, check boxes appear for additional messaging options such as email, phone, fax or SMS. Checking one or more of these options means the recipient can receive messages that are configured to be sent only by that means. For example, checking the SMS box ensures the patient can receive SMS (only) messages (even if their main messaging method is something else).

See Adding a New Message Event for details on how to set up SMS (only), Email (only), Phone (only) ...etc messages.

9.4.2.1.2 Contact (Additional)

Personal and Address

Contact (main)

Contact (Additional)

Add a new record

Telephone Numbers

There are no items to display


Add a new record

Email Addresses

There are no items to display

Add a new record

Email / SMS Alerts

Template	Method	Type
 DAWN Report	SMS	Main Mobile No

Health Insurance No

Misc Field

The *Misc* field is a miscellaneous field you can use for whatever you want. Again, you can change the field caption via the *PatientMisc1\_FieldCaption* system setting. For example:

PatientMisc1\_FieldCaption


Health Insurance No

Caption for Miscellaneous field on Patient screen leave blank to hide field

### 9.4.2.1.3 Editable contact fields

PatientForm_Caption_Field	GP	The user defined field to display in the caption of the Patient details window (use one of: AddressLine2, Laboratory, GP or Consultant). Changes to this setting will not take affect until you log out and log back in
PatientNationalNo_FieldCaption	NHS No	The caption for the NationalNo field in table Patient
PatientPostCode_FieldCaption	Post Code	The caption for the Postcode field in table Patient
PatientTown_FieldCaption	Town	The caption for the Town field in table Patient
PatientUnitNo_FieldCaption	MRN	The caption for the UnitNo field in table Patient

The above settings would alter the contact info tab as follows:

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Contact info	Next of kin	Clinical	Owners	Account	Audit	
Personal and Address			Contact		Additional	
						
Last name	TARGARYEN					
First name	Daenerys					
Age	30					
MRN						
NHS Number ⓘ	012 345 6789					
NHS Number status ⓘ	Number present but not traced ▼					
Address 1	4 The Square					
Address 2						
Town	Milnthorpe					
County	Cumbria					
Post Code	LA7 7QJ					
Sex	Female ▼					
Title	Miss					
Dateofbirth	01/01/1987 📅					
Date of Death						
Ethnic origin	Caucasian ▼					
Language	ICELANDIC ▼					
Status	Active					
<div>Deactivate</div> <div>Deceased</div>						

### 9.4.2.2 Next of Kin

Use the *Next Of Kin* tab to record the patient's next of kin details:

Graph		History		Personal		Treatment plans		Questionnaires		Test Results		Interface Warnings	
Contact info		Next of kin		Clinical		Owners		Account		Audit			
Name	John Targaryen												
Address	4 The Square Milnthorpe Cumbria												
Home phone	01539563091												
Mobile phone													
Work phone													
EmailAddress	john @targaryen.com												
Fax number													
Messaging method:	E-mail												

## Messaging Method

The *Next of Kin* messaging methods work the same way as the *Patient* messaging methods. See Preferences for messaging by Patient for details.

If you choose a method that relies on a particular contact detail (e.g. an email requires an email address, phone requires or a phone number), you are prevented from saving the record, if you have not entered the relevant contact detail. In other words you cannot select SMS if you have not entered a mobile number.

## Email with PDF attachment

**IMPORTANT:** *email with PDF attachment* is more robust choice for messages which risk being misinterpreted if they are formatted badly. Dosing instructions are a prime example. With simple email, the content is placed in the body of the email and relies on the recipient's email client to format the content correctly. Some clients may be more reliable than others. With *email with PDF attachment*, the content is saved to a PDF file (which will display the same way on any computer) and attached to a covering email.

## Can Also Receive Messages By:

When you first add a new record, the *Can Also Receive Messages By* section does not include any options except *Mail*. As you add different contact details such as email address, phone numbers, or fax numbers, check boxes appear for additional messaging options such as email, phone, fax or SMS. Checking one or more of these options means the recipient can receive messages that are configured to be sent only by that means. For example, checking the SMS box ensures the healthcare professional can receive SMS (only) messages (even if their main messaging method is something else).

See Adding a New Message Event for details on how to set up SMS (only), Email (only),

Phone (only) ...etc messages.

### 9.4.2.3 Clinical


Use the *Clinical* tab to record additional clinical details such as allergies, risks and secondary diagnoses and to record the patient's blood group and current weight and height.

#### Diagnoses

Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info Next of kin **Clinical** Owners Account Audit

➕ Add a new record ➔ Diagnoses

Diagnosis	Diagnosis date
 - ATRIAL FIBRILLATION	07/02/2023


#### Allergies

Allergies can have a status of 'Allergy assessment NOT YET COMPLETED' or 'Allergy Assessment complete'. If a new allergy is added to a patient record or an existing allergy is removed, the allergy status will be set back to 'Allergy assessment NOT YET COMPLETED' and would need to be manually changed to 'Allergy Assessment complete' as required.

**IMPORTANT** - Allergies currently being assessed - please change the allergy status when complete.



Allergy Status Allergy assessment NOT YET COMPLETED

➕ Add a new record ➔ Allergies

Allergy	Severity
 Nuts	


Allergy Status Allergy assessment complete

➕ Add a new record ➔ Allergies

Allergy	Severity
 Eggs	
 Nuts	

#### Risks

➕ Add a new record ➔ Risks

Risk
 Out of Area

Blood group, weight, height, BM/BSA, ward

Blood group	B Positive		
High risk	<input type="checkbox"/>		

Weight	74	kg
Measured at	01/02/2023	BMI 25.6

Height	1.70	m
Measured at	01/02/2023	BSA 1.9

Ward	(None selected)
------	-----------------

#### 9.4.2.4 Owners

Use the Owners tab to record which organisations have ownership of the patient record (this is only relevant if you have users belonging to different organisations).

Use the monitoring owner to record which organisation is responsible for monitoring the patient (this is only relevant if you have patients being monitored by different organisations within the system).

##### 9.4.2.4.1 Adding additional owners

You can define up to three other owners. Users whose User Profiles are not permitted to View All Organisations can only view patient records for which their organisation is an owner. Users with a User Profile that permits View All Organisations can view all patient records regardless of owner.

Graph

History

Personal

Treatment plans

Questionnaires

Test Results

Interface Warnings

Contact info

Next of kin

Clinical

Owners

Account

Audit

Organisation1

Organisation2

Organisation3

Organisation4

Dawn Hospital

(None selected)

(None selected)

(None selected)

→ Monitored by 1 / 1

Organisation	Disease Area
Dawn Hospital	Anticoagulation

Send messages to:

Patient

Next of kin

GP

Consultant

Healthcare professionals

☒

☒

☒

☒

☒

Click in Organisation 2, 3 or 4 to add an additional owner

Indicates the monitoring organisation for each application area

You can also use the Owners tab to suppress the generation of automatic letters and emails for this patient, their next of kin, their GP, consultant or Treatment Plan Team by unchecking the appropriate checkbox. For example, if a patient has difficulty seeing, reading or understanding a dose letter, you may wish to prevent letters being automatically sent to him when you authorise his dose but allow letters to be sent to his next of kin instead.

#### 9.4.2.4.2 Changing the monitoring organisation

Enter topic text here.

Graph
History
Personal
Treatment plans
Questionnaires
Test Results
Interface Warnings

Contact info
Next of kin
Clinical
Owners
Account
Audit

Organisation1
Dawn Hospital
Organisation2
(None selected)
Organisation3
(None selected)
Organisation4
(None selected)

→ Monitored by 1 / 1

Organisation	Disease Area
Dawn Hospital	Anticoagulation

Click here to change the monitoring organisation

Send messages to:

Patient
Next of kin
GP
Consultant
Healthcare professionals

#### 9.4.2.5 Account

The *Account* tab was originally conceived with the idea of giving patients limited access to their own records but this has never been fully implemented. However, this tab can be used for storing a PIN number used by the interface to match questionnaire results from patients who have filled in external questionnaire or scoring forms such as *INR Capture*. Instructions on how to use this tab are supplied if you purchase one of these external modules.



### 9.4.2.6 Audit

Use the *Audit* tab to view changes to the patient record

Contact info	Next of kin	Clinical	Owners	Account	Audit
--------------	-------------	----------	--------	---------	-------


Change Log					
Date	Field	Changed From	Changed To	User Name	
29/11/2017 12:32	cWorkPhone		01539563092	Support DAWN	
29/11/2017 12:29	cNextOfKinName		John Targaryen	Support DAWN	
29/11/2017 12:29	mNextOfKinAddress		4 The Square Milnthorpe Cumbria	Support DAWN	

StatusHistory			
Date	User ID	User Name	Action
29/11/2017 11:22	Dawn	Support DAWN	Activate

### 9.4.3 Setting patient risk class

A risk class can be chosen for a patient to indicate what their risk level is, e.g., high risk, low risk. This risk class appears on the top left of the main patient screen. You can set the default risk class for new patients in the system settings.


 Test-Patient, Aaron - Male - 01/02/1943 - T000003 -

Risk Class	High Risk	▼
Pref. Clinic	(None selected)	▼
Phone	- home	▼
Age:	79	

*Click to change the risk class*

Select the new risk class

Patient ✕ Drug ✕

 ADAMS,

Risk Class	High
Pref. Clinic	(None selected)
Phone	- home
Age:	79

*Click to select*

Search for:

(None selected)

Medium

Pharmacist to dose

Low

Paediatric Patient

High

## 9.4.4 Adding patient contacts

Rheumatology Interventions **Contacts** Letters Drugs Events Procedures Reviews Reminders Groups Documents

Team members Add a new record

Click to add a new contact

### 9.4.4.1 Select a contact

Patient TreatmentPlanTeamMember

Please select a HCPProfessional for the table TreatmentPlanTeamMember

You can select more than one item

- ☐ GP Practice - GP Test
- ☐ Hospital - Dawn Dawn
- ☐ Hospital - Dawn Dawn3
- ☐ Hospital - Doctor DAWN
- ☐ Hospital - Interface Dawn
- ☒ Hospital - Nurse DAWN
- ☐ Hospital - Support Dawn2

Select a HCPProfessional and click OK to save

OK Cancel




Rheumatology Interventions Contacts Letters **Drugs** Events Procedures Reviews Reminders




Groups Documents


+ Add drug Click add drug

**Treatment Plan Relevant Drugs**

Drug	Start date	End date	Dose	Frequency	Interaction
 Alendronic acid	14/04/2022				

#### 9.4.6.1 Select the drug

Patient  **Drugs**  Drug 





- Abatacept (ORENCIA)
- Aceclofenac
- Adalimumab (AMGEVITA)
- Adalimumab (HUMIRA)
- Adalimumab (IMRALDI)
- Alendronic acid
- Amioderone** Click to select the drug
- Apremilast (OTEZLA)
- Azathioprine
- Baricitinib (OLUMIANT)


### 9.4.6.2 Complete the drug details (including interacting drugs)


**Drugs** ✕


**Drug** Amioderone


**Start date** 12/05/2022  Enter the start date



**End date**  Enter the end date, if known


**Dose Description**  Enter the dose (not mandatory)

**Frequency**  Enter the frequency (not mandatory)

**Notes**  You can optionally add any drug notes here.

**Warn Level** ⓘ Normal  Change the warning level, if applicable

**Duration of Warning**  days  Change the duration of warning, if applicable

**Local Code** 


**Last Updated** 12/05/2022 17:26:33

Click here on the OK button to save this record and return to the patient drug list.

✓ OK ✕ Cancel



### 9.4.6.3 List of patient drugs

Dosing Contacts Letters **Drugs** 1 Events Procedures Reviews Reminders Groups Documents

 Add drug


This indicates the number of interacting drugs within the warning duration

**Treatment Plan Relevant Drugs**

Drug	Start date	End date	Dose	Frequency	Interaction
  Amiodarone	29/09/2022				Significant enhanced anticoagulation effect

This drug is current and interacting

**Other Drugs**

Drug	Start date	End date	Dose	Frequency	Interaction
 Amlodopine	29/09/2022				

This drug is current and not interacting

### 9.4.7 Adding events

Rheumatology Interventions Contacts Letters Drugs Events Procedures

Groups Documents

+ Add Event Click to add an event

There are no items to display

#### 9.4.7.1 Select the event

Rheumatology Interventions Contacts Letters Drugs Events Procedures Reviews Reminders

Groups Documents

+ Add a new record Add an review

There are no items to display

#### 9.4.7.2 Select the severity

Please select a Severity for the table Events

Major Minor Moderate (No Hospitalisation) Moderate (Hospitalisation) Major (Hospitalisation) Fatal

Select a severity

### 9.4.7.3 Complete the event details

The screenshot shows the 'Events' form with the following fields and callouts:

- Event:** A dropdown menu showing '- GI Bleed'. Callout: 'Choose the type of event from a drop down list of events.'
- Severity:** A dropdown menu showing 'Moderate (No Hospitalisation)'. Callout: 'Choose the event severity from a drop down list of severity gradings.'
- Date:** A date picker showing '23/05/2022'. Callout: 'Select the event date from the date picker.'
- Notes:** A text area. Callout: 'Add any pertinent free text notes about the event.'
- Warn Level:** A dropdown menu showing 'Normal'. Callout: 'Choose a warn level from the drop down list.'
- Duration of Warning:** A dropdown menu showing 'days'. Callout: 'The duration of warning specifies how long DAWN will alert you about the event by displaying a red badge on the tab. If the warn level is set to "Always warn", the duration is ignored and the badge always displayed.'
- Buttons:** 'OK' and 'Cancel' buttons at the bottom. Callout: 'Click here on the OK button to save this record.'

A message at the bottom of the form states: 'You will need to save this new record before you can...'.

For instructions on customising the master lists of:

- Events, see: Adding/Editing Events
- Severities, see: Adding/Editing Severities
- Warn Levels, see Adding/Editing Warn Levels

### 9.4.8 Adding procedures


The Procedures tab allows you to record details of upcoming procedures

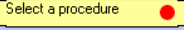
The screenshot shows the 'Procedures' tab interface with the following elements:

- Navigation Tabs:** Rheumatology, Interventions, Contacts, Letters, Drugs, Events, **Procedures** (selected), Reviews.
- Sub-tabs:** Groups, Documents.
- Add Procedure Button:** A button with a plus icon and the text 'Add Procedure'. Callout: 'Click to add a procedure'.
- Content Area:** A message stating 'There are no items to display'.


### 9.4.8.1 Select the procedure


Please select a Procedure for the table Patient Procedure


 

- Bone density scan 
- Cardioversion
- chest x-ray
- Smear test

### 9.4.8.2 Complete Procedure details

Patient Procedure 

**Procedure** Cardioversion 


**Procedure Date**   Enter the procedure date


**Notes**



You can optionally add any procedure notes here.

**Pre-Warn Duration**  0 days Enter the pre-warn duration

**Post-warn Duration**  0 days Enter the post-warn duration

**Warn Level** Normal  Change the warning level, if applicable


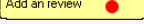
Click here on the OK button to save this record. 

 OK  Cancel

### 9.4.9 Adding reviews

Rheumatology Interventions Contacts Letters Drugs Events Procedures **Reviews** Reminders

Groups Documents

 Add a new record 

There are no items to display



### 9.4.9.1 Complete the review details

Review ✕

**Treatment Plan** Rheumatology: 28/01/2019

**Reason**

**Reviewer** (None selected)

**Dates and Interval**

**Date Created** 23/05/2022

**Date reviewed**

**Interval**

**Next Review Da**

**Mark as reviewed**

**Review Notes**

**ReviewHistory**

**OK** **Cancel**

Annotations:

- Add a reason for review
- Select a reviewer, if applicable
- If recurring, set a review interval
- Add review notes as applicable
- Click here on the OK button to save this record.

### 9.4.10 Adding reminders

Rheumatology Interventions Contacts Letters Drugs Events Procedures Reviews Reminders

Groups Documents

+ Add a new record Add a reminder

There are no items to display

### 9.4.10.1 Complete the reminder details

Reminder ✕

Due Date

23/05/2022

Add a reminder date

Reminder

Add a reminder description

Notes

Add a reminder notes, if applicable

Complete

☐

Lead Days

0

Add a reminder date lead days

User

Hospital - Dawn Dawn

Treatment Plan

Rheumatology: 28/01/2019

Click OK to save

### 9.4.11 Adding the patient to a patient group

Rheumatology

Interventions

Contacts

Letters

Drugs

Events

Procedures

Reviews

Groups

Documents

➕ Add a new record

Add a patient group

There are no items to display

### 9.4.11.1 Select patient groups

Procedure ✕ Patient ✕ Patient Group Member ✕ Event ✕

Please select a Patient Group for the table Patient Group Member

You can select more than one item

☐ New drug trial (Hospital)

Select patient group/s

☐ XYZ group (Hospital)

Click OK to save

✓ OK ✕ Cancel

### 9.4.12 Adding documents

Rheumatology Interventions Contacts Letters Drugs Events Procedures Reviews

Groups Documents

+ Add Document

Add a scanned document or saved image

There are no items to display

#### 9.4.12.1 Select the file to attach

DAWN®

PatientDocument ✕

HCPProfessional Hospital - Dawn Dawn

Description Enter a description

Date 23/05/2022 15:18:15

Size

File Name

Visible For Patient ☒

Document Choose File No file chosen

Treatment Plan Rheumatology: 28/01/2019

Click OK to save

✓ OK ✕ Cancel

## 10 Managing Patients Under Different Therapies

Within DAWN there are three types of treatment plan therapy available for a patient on warfarin or other vitamin K antagonists:

1. Induction
2. Maintenance
3. Manual/Bridging

Click on each section to read more about how each therapy works.

Additionally, other therapies may be recorded within DAWN AC:

New Oral Anticoagulants (Dabigatran, Rivaroxaban, Apixaban etc)

### 10.1 Induction Dosing

Induction therapy is used to start or restart a patient on warfarin and tries to determine an appropriate maintenance dose using established protocols.

Induction is an optional module. If you have the induction module, you can start a patient on induction therapy

#### 10.1.1 Setting induction therapy

Induction therapy is used to start or restart a patient on warfarin and tries to determine an appropriate maintenance dose using established protocols.

Induction is an optional module. If you have the induction module, you can start a patient on induction therapy by selecting the options shown below when you create (or edit) their treatment plan:

**Primary Diagnosis** - ATRIAL FIBRILLATION (20/12/2017)

**Start date** 20/12/2017 **First seen date**

**Duration** Long Term Indefinite

**Preferred clinic** Dalton Square Surgery GP (S)

**Preferred time** From until

**Cessation Reason** (None selected)

**Status** active suspend stop Admit

**Therapy**

**ACTherapy** ☒ Induction ☐ Maintenance ☐ Manual/Bridging

**Target range** 2.0 - 3.0

**Induction algorithm** OATES ET AL - MALE

**Max % Dose Change** 20

**Max Interval** 140

**Problem Patient** ☐ Recalc time in range

In order for the induction algorithm rules to work, the treatment plan start date must be day 1 of the algorithm, ie, the next visit for the patient and the treatment plan start date must match. If they do not match, DAWN forces the user to manually dose the patient while in induction mode.

There are 6 standard induction algorithms included within DAWN, although additional custom induction algorithms can be added if needed. Click here to see the list of standard algorithms

### 10.1.2 Induction dosing

Once you have set up the treatment plan for induction, dosing the patient is very much like maintenance dosing, where DAWN suggests a dose and next test date based on the INR entered:

**Dosing** Contacts Letters Drugs Events Procedures Reviews Reminders Groups Documents

INR: 1.1 Low Date: 20/12/2017 Wed 20/12/2017, 10:15 - 10:30: Dalton Square Surgery GP (S)

Warfarin	Wed	Thu	Fri	Sat
Pills (1 mg)	5	5	5	5
Total mg	5	5	5	5

**Dose** 5.00 d (no previous dose) **Next** 24/12/2017 4 d

Click to accept the dose

Accept dose New INR/Dose Tested No Further Tests

No warnings

**Treatment Notes**

Please Note: During induction therapy most protocols suggest testing at intervals that are less than a week. If you use a formatted (HTML) dosing regime (as above), DAWN automatically customises the instruction so that it starts on the correct day and only includes the days until the next planned test.

If you deviate from the induction algorithm rules when dosing a patient (either by overriding the dose or next test), then you will have to manually dose the patient from then on.

### 10.1.3 Transfer to maintenance

When you authorise a patient's dose on the last day of the induction protocol, the system displays an Induction to Maintenance Transfer dialog:

Induction to Maintenance Transfer ✕

SNOW John (01/01/1990) # / 012 345 6789

ⓘ This patient has reached the final day of the Induction Algorithm. Do you wish to transfer the patient to Maintenance Therapy?

Stability Check ⚠

Last Dose	4.00
Last Dose But 1	4.00
Difference	0.00%

Induction Settings

No of Tests:	6
Last Dosed on Day:	27
Tablet Options:	Warfarin 1mg Tablets With Halves Daily
Induction Algorithm	TAIT ET AL INDUCTION

ⓘ To Transfer the Patient to Maintenance Dosing: please confirm the Maintenance Settings are correct and choose "Transfer".

Maintenance Settings

Patient Tablet Options:

Edit Tablet Options

Anticoagulant:	Warfarin	Record Dose As:	Daily Average
Brand:	UK Generic	Split Tablet Into:	Half a Tablet
Tablet Strength:	Pills (1 mg)		
Show Total mg Dose Line	Yes	Dose In	Tablets
Target INR Range	2.0 - 3.0		
Max % Dose Change	20		
Max Interval	140		
Inpatient	<input type="checkbox"/>		

Transfer

Cancel

This screen gives an overview of the induction settings used, as well as a stability check between the current and last dose. At this point, check the stability figures carefully, and change the patient's dosing regime and target range (if needed), before pressing the Transfer button to move them over to maintenance therapy.

For example, in changing the dosing regime to meet the varying dose requirements of your induction protocol you might use more than one tablet strength during induction therapy. When you transfer the patient to maintenance therapy you may wish to move the patient on to a regime for the most appropriate single tablet strength.

Another consideration might be that most induction protocols are expressed in daily doses. If you normally record a total weekly dose for patients on maintenance therapy, you may have a special "daily" dosing regime that you use for induction. If so, you may wish to switch the patient on to one of your normal "weekly" regimes when you transfer them to maintenance therapy.

Please note, in this case, you should NOT change the dose to a total weekly amount as DAWN automatically converts the next dose to a weekly amount if the last dose is daily and the current regime is weekly (or vice versa).

If you decide that the patient should not be moved over to maintenance yet, then choose the Cancel button. If you choose to Cancel the transfer to maintenance screen above, then you can change the patient over to maintenance therapy later within their treatment plan.

**IMPORTANT NOTE:** If you cancel from the Transfer to Maintenance screen and keep the patient on induction therapy, then you will need to manually dose the patient until they move to maintenance, as there will be no induction algorithm rules left for DAWN AC to use.

#### 10.1.4 Induction dose validation

1. During the Induction phase, if you edit a dose so that the suggested dose and actual dose are not equal, all subsequent Induction dose calculations are prevented and a "Calc prevented: not following protocol" warning is generated. This is the case whether you modify a dose before you instruct the patient or retrospectively update the last dose to reflect what the patient actually took (see Retrospectively Adjusting the Last Dose).
2. During the Induction phase, if you test a patient on a day other than the date suggested in the protocol all subsequent Induction dose calculations are prevented and a "Calc prevented: not following protocol" warning is generated.
3. Unlike Maintenance doses, Induction doses can be calculated where:
  - The last instruction does not span 7 days
  - The last instruction contains LMWH.
4. Custom instructions never carry forward in Induction.

#### 10.1.5 Standard Induction Algorithms Included in DAWN

##### 1. *Agono Et Al - Low Dose*

Sex	Dose by Day			in			
Both	5			mg per day			
Day	INR Between			Last Dose	Dose	Miss Days	Interval
1	0.0	-	1.3	0.00	5.00	0	1
2	0.0	-	1.4	0.00	5.00	0	1
2	1.5	-	1.9	0.00	2.5	0	1
2	2.0	-	2.4	0.00	1.00	0	1
2	2.5	-	5.0	0.00	0.00	1	1
3	0.0	-	1.4	0.00	5.00	0	1
3	1.5	-	1.9	0.00	2.50	0	1
3	2.0	-	2.4	0.00	1.00	0	1
3	2.5	-	5.0	0.00	0.00	1	1
4	0.0	-	1.3	1.00	7.5	0	1
4	1.4	-	1.9	0.00	5.00	0	1
4	2.0	-	2.9	0.00	2.50	0	1

4	3.0	-	3.4	0.00	1.00	0	1
4	3.5	-	5.0	0.00	0.00	1	1
5	0.0	-	1.3	0.00	10.00	0	1
5	1.4	-	1.7	0.00	7.50	0	1
5	1.8	-	2.4	0.00	5.00	0	1
5	2.5	-	3.0	0.00	2.50	0	1
5	3.1	-	3.5	0.00	1.00	0	1
5	3.6	-	5.0	0.00	0.00	1	1

## 2. Ageno Et Al - Normal

Sex	Dose by Day			in			
Both	7			mg per day			
Day	INR Between			Last Dose	Dose	Miss Days	Interval
1	0.0	-	1.3	0.00	5.00	0	1
2	0.0	-	1.8	0.00	5.00	0	1
2	1.9	-	2.4	0.00	2.50	0	1
2	2.5	-	5.0	0.00	0.00	1	1
3	0.0	-	1.3	0.00	7.50	0	1
3	1.4	-	1.9	0.00	5.00	0	1
3	2.0	-	2.4	0.00	2.5	0	1
3	2.5	-	5.0	0.00	0.00	1	1
4	0.0	-	1.3	0.00	10.00	0	1
4	1.4	-	1.9	0.00	5.00	0	1
4	2.0	-	2.9	0.00	2.50	0	1
4	3.0	-	3.5	0.00	1.00	0	1
4	3.6	-	5.0	0.00	0.00	1	1
5	0.0	-	1.3	0.00	10.00	0	1
5	1.4	-	1.9	0.00	7.50	0	1
5	2.0	-	2.9	0.00	5.00	0	1
5	3.0	-	3.5	0.00	2.50	0	1
5	3.6	-	5.0	0.00	0.00	1	1
6	0.0	-	1.3	0.00	10.00	0	1
6	1.4	-	1.9	0.00	7.50	0	1
6	2.0	-	2.9	0.00	5.00	0	1
6	3.0	-	3.5	0.00	2.50	0	1
6	3.6	-	5.0	0.00	0.00	1	1



7	0.0	-	1.3	0.00	10.00	0	1
7	1.4	-	1.9	0.00	7.50	0	1
7	2.0	-	2.9	0.00	5.00	0	1
7	3.0	-	3.5	0.00	2.50	0	1
7	3.6	-	5.0	0.00	0.00	1	1

### 3. Fennerty Et Al

Day	Sex	Dose by Day		in			Interval
	Both	4	INR Between	Last Dose	Dose	Miss Days	
1	0.0	-	1.4	0.00	10.00	0	1
2	0.0	-	1.7	0.00	10.00	0	1
2	1.8	-	1.8	0.00	1.00	0	1
2	1.9	-	5.0	0.00	0.50	0	1
3	0.0	-	1.9	0.00	10.00	0	1
3	2.0	-	2.1	0.00	5.00	0	1
3	2.2	-	2.3	0.00	4.50	0	1
3	2.4	-	2.5	0.00	4.00	0	1
3	2.6	-	2.7	0.00	3.50	0	1
3	2.8	-	2.9	0.00	3.00	0	1
3	3.0	-	3.1	0.00	2.50	0	1
3	3.2	-	3.3	0.00	2.00	0	1
3	3.4	-	3.4	0.00	1.50	0	1
3	3.5	-	3.5	0.00	1.00	0	1
3	3.6	-	4.0	0.00	0.50	0	1
3	4.0	-	5.0	0.00	0.00	1	1
4	1.4	-	1.4	0.00	8.00	0	1
4	1.5	-	1.5	0.00	7.50	0	1
4	1.6	-	1.7	0.00	7.00	0	1
4	1.8	-	1.8	0.00	6.50	0	1
4	1.9	-	1.9	0.00	6.00	0	1
4	2.0	-	2.1	0.00	5.50	0	1
4	2.2	-	2.3	0.00	5.00	0	1
4	2.4	-	2.6	0.00	4.50	0	1
4	2.7	-	3.0	0.00	4.00	0	1
4	3.1	-	3.5	0.00	3.50	0	1
4	3.6	-	4.0	0.00	3.00	0	1

4	4.1	-	4.5	0.00	2.00	1	1
4	4.5	-	5.0	0.00	1.00	2	1

#### 4. Oates Et Al - Female

Sex		Dose by Day		in			
Female		14		mg per day			
Day	INR Between		Last Dose	Dose	Miss Days	Interval	
1	0.0	-	1.3	0.00	2.00	0	14
15	1.0	-	1.1	2.00	5.00	0	7
15	1.2	-	1.3	2.00	4.00	0	7
15	1.4	-	1.9	2.00	3.00	0	7
15	2.0	-	3.0	2.00	2.00	0	7
15	3.1	-	4.0	2.00	1.00	0	7

#### 5. Oates Et Al - Male

Sex		Dose by Day		in			
Male		14		mg per day			
Day	INR Between		Last Dose	Dose	Miss Days	Interval	
1	0.0	-	1.3	0.00	2.00	0	14
15	1.0	-	1.0	2.00	6.00	0	7
15	1.1	-	1.2	2.00	5.00	0	7
15	1.3	-	1.5	2.00	4.00	0	7
15	1.6	-	2.1	2.00	3.00	0	7
15	2.2	-	3.0	2.00	2.00	0	7
15	3.1	-	4.0	2.00	1.00	0	7

#### 6. Tait Et Al Induction

Sex		Dose by Day		in			
Both		8		mg per day			
Day	INR Between		Last Dose	Dose	Miss Days	Interval	
1	0.0	-	1.3	0.00	5.00	0	4
5	0.0	-	1.7	5.00	5.00	0	3

5	1.8	-	2.2	5.00	4.00	0	3
5	2.3	-	2.7	5.00	3.00	0	3
5	2.8	-	3.2	5.00	2.00	0	3
5	3.3	-	3.7	5.00	1.00	0	3
5	3.8	-	5.0	5.00	0.00	0	3
8	0.0	-	1.7	1.00	2.00	0	7
8	0.0	-	1.7	2.00	3.00	0	7
8	0.0	-	1.7	3.00	4.00	0	7
8	0.0	-	1.7	4.00	5.00	0	7
8	0.0	-	1.7	5.00	6.00	0	7
8	0.0	-	1.9	0.00	1.50	0	4
8	1.8	-	2.4	1.00	1.5	0	7
8	1.8	-	2.4	2.00	2.50	0	7
8	1.8	-	2.4	3.00	3.50	0	7
8	1.8	-	2.4	4.00	4.00	0	7
8	1.8	-	2.4	5.00	5.00	0	7
8	2.0	-	2.9	0.00	1.00	0	4
8	2.5	-	3.0	1.00	1.00	0	7
8	2.5	-	3.0	2.00	2.00	0	7
8	2.5	-	3.0	3.00	3.00	0	7
8	2.5	-	3.0	4.00	3.50	0	7
8	2.5	-	3.0	5.00	4.00	0	7
8	3.0	-	3.5	0.00	0.5	0	4
8	3.1	-	3.5	1.00	0.5	0	4
8	3.1	-	3.5	2.00	1.50	0	4
8	3.1	-	3.5	3.00	2.50	0	4
8	3.1	-	3.5	4.00	3.00	0	4
8	3.1	-	5.0	5.00	3.00	0	4
8	3.6	-	5.0	1.00	0.00	4	4
8	3.6	-	5.0	2.00	1.00	0	4
8	3.6	-	5.0	3.00	2.00	0	4
8	3.6	-	5.0	4.00	2.50	0	4

## 10.2 Maintenance Dosing

Maintenance therapy is used for a patient when the patient has reached a stable maintenance dose. DAWN uses an inbuilt algorithm to suggest the most appropriate dose and next test interval for a patient.

Once the treatment plan is set up, the DAWN system uses the previous INR and dose history combined with the current INR entered to suggest a dose and next test interval for the patient:

If DAWN is unable to suggest a dose or next test interval, then you will need to manually enter these for a patient. There are several reasons why DAWN may be unable to suggest a dose or next test interval:

- There is no previous dosing history to base a dose calculation on
- The last test was more than the maximum number of days allowed within the DAWN system settings
- The INR is very high or very low (less than 1.3 or bigger than 5 within the DAWN standard dose settings)
- The treatment plan start date is less than 7 days old
- Interval from last test is less than 7 days.
- Interval between the previous two tests is less than 7 days
- The last treatment record was dosed using bridging therapy (see 'Bridging Dosing' section)

You can choose to overwrite the suggested dose and next test intervals at any time for a patient. See 'Dosing an Anticoagulation Patient' for more details.

### **10.3 Manual / Bridging Dosing**

Manual/Bridging therapy is used whenever the patient is in a period of instability such as when you are stopping and restarting warfarin for a surgical procedure. While a patient is on manual/bridging therapy, DAWN will force you to manually dose the patient. Once the patient is stable once again, you can then change the therapy back over to maintenance.

You can start a patient on manual/bridging therapy by selecting the options shown below when you create (or edit) their treatment plan:

**Anticoagulation**

**Primary Diagnosis** - ATRIAL FIBRILLATION (29/11/2017)

**Start date** 01/10/2016 **First seen date**

**Duration** Long Term  
Indefinite

**Preferred clinic** Dalton Square Surgery GP (S)

**Preferred time** **From**  **until**

**Cessation Reason** Patient Deceased

**Status** active suspend stop Admit

**Therapy** Manual/Bridging therapy can be chosen from these radio button options

**ACTherapy** Induction Maintenance Manual/Bridging

**Target range** 2.0 - 3.0

When you enter an INR for a patient on manual/bridging therapy, DAWN will not suggest a dose and next test interval, and a message appears within the Warnings box to inform you that this patient is on bridging:

**Dosing** Contacts Letters Drugs 1 Events Procedures Reviews Reminders Groups

**Documents**

**INR:** 2.6 In Range **Date:** 01/01/2018 Not scheduled

**Take no Warfarin**

**Dose** 0.00 d ? (dose zero) **Next**

**Accept dose** **New INR/Dose** **Tested** **No Further Tests** ☐

**Calc prevented: Manual/Bridging Therapy. Dose manually.**

**Treatment Notes**

### 10.3.1 Scenarios

The following scenarios aim to put certain aspects of the design in context by showing how they would be used to achieve specific tasks or solve specific problems. Click on each section to read more about how each therapy works.

Bridging therapy for patients on Warfarin (or other vitamin K antagonists)

Handling doses that fall in the next week for patients on on Warfarin (or other vitamin K antagonists)

Maintenance dosing patients on Warfarin (or other vitamin K antagonists)

#### 10.3.1.1 Scenario: Bridging Therapy

The following scenario illustrates how an anticoagulation nurse, Maggie Marshall might edit a dosing instruction for a patient on Bridging therapy with a procedure on Wednesday. (The example is not based on any actual bridging protocol, but it hopefully illustrates how a bridging protocol could be used. The example uses British tablet colours. Clexane is a brand name for Enoxaparin used in the UK.)

Maggie has switched the patient's therapy to Bridging so when she enters an INR, DAWN AC does not automatically calculate a dose.

Maggie could type a dose in the dose field but this would give a standard instruction showing a dose for each day of the week. Maggie wants to stop warfarin until after the patient's procedure then restart with a higher loading dose on Thu and Fri. As such, she double clicks the dosing instruction box to enter a custom instruction manually. The Customise Dosing Instruction form is displayed.

## 10.3.1.1.1 Bridging with LMWH

The screenshot shows the 'Dosing' tab with a 'Customize dosing-instruction' window. The window has two sections: Warfarin and Enoxaparin. The Warfarin section shows a table with columns for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat) and rows for 'mg' and 'Total mg'. The Enoxaparin section shows a table with columns for days of the week and rows for 'mg' and 'Total mg'. A yellow callout points to the 'Select the drug and regime' dropdown menu. The 'Dose' field shows '1.71 d' and 'Dose decreased by 43%'. The 'Next' field shows a calendar icon and a checkmark.

Maggie selects 1mg per kg / (q12h). This is a 12 hour regime, so DAWN displays two lines, one for an AM injection time and the other for a PM injection time. The patient weights 168 lbs which DAWN automatically converts to 76.2 kg. His weight was measured 4 days ago so is still valid to use in a dose calculation. The calculated dose is 76.2 kg but the nearest available syringe size is 80mg so DAWN rounds the dose to 80mg.

## 10.3.1.1.2 Add the days and times

The screenshot shows the 'Dosing' tab with a 'Customize dosing-instruction' window. The window has two sections: Warfarin and Enoxaparin. The Warfarin section shows a table with columns for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat) and rows for 'mg' and 'Total mg'. The Enoxaparin section shows a table with columns for days of the week and rows for 'mg' and 'Total mg'. A yellow callout points to the 'Click to close the dosing instruction box' button. The 'Dose' field shows '0.00 d' and '(dose zero)'. The 'Next' field shows a calendar icon and '8 wk'.

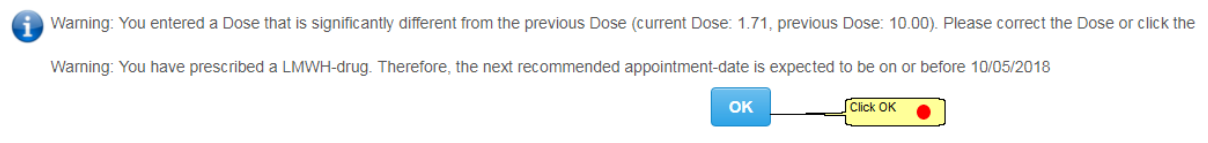
Maggie leaves the default injection times of 08:00 and 20:00 as these are appropriate for her patient. She ticks the check boxes for the mornings and afternoons on which she wishes the patient to take an injection.

She specifies injections twice a day apart from the day before the procedure when she wants the patient to miss the afternoon dose and the day of the procedure where she wants the

patient to miss the morning dose.

Maggie closes the Customise dosing-instruction form and the patient's instruction and numeric dose are updated with her changes. The change results in a 35% dose decrease, which exceeds the max usually permitted for the patient's treatment plan. Consequently, a red question mark is displayed beside the dose. When Maggie hovers over the question mark, a pop up message explains why it has been raised

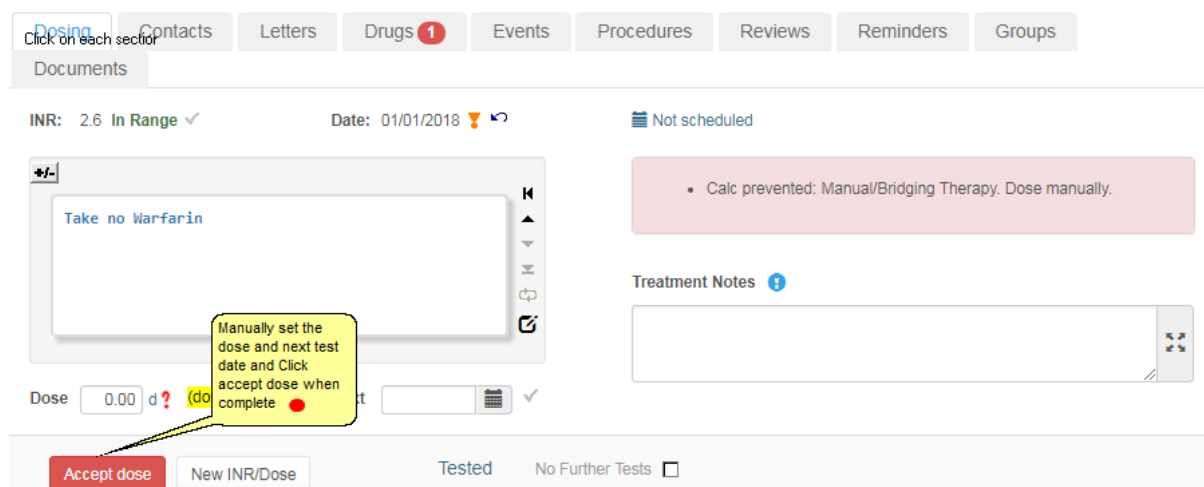
#### 10.3.1.1.3 Dose warning message



Maggie clicks the red question mark to confirm she wants to give this instruction. The question mark turns to an exclamation mark, showing that she has acknowledged the warning. Maggie accepts the dose.

#### 10.3.1.1.4 Next test after bridging

When Maggie doses the patient on their next (maintenance) test, automatic dose calculation is prevented as the last dose was a Bridging Therapy. This ensures that a bridging instruction is not used as a basis for the next maintenance dose.



In the event that Maggie neglects to switch the therapy to Bridging, dose calculation is also prevented if:



- The previous dose contained a LMWH instruction.
- The previous dose comprised a major edit. This is where the doses for two or more days differ by more than the smallest unit used in the regime.

(If the Regime contains 1mg tablets and the smallest permitted tablet part is half a tablet, the smallest unit would be ½ mg. If the smallest tablet strength used in the Regime is 3mg and the regime only permits whole tablets, the smallest unit would be 3mg.)

### 10.3.1.2 Scenario: Handling Doses that Fall in the Next Week

Maggie has a patient with a low INR on Friday. She wants to instruct him to take 4½ mg on Friday followed by 3mg on Saturday and Sunday but the Sunday dose carries forward into the following week and looks odd on the instruction as it appears to precede rather than succeed the Friday and Saturday doses.

To correct this, Maggie selects Friday as the first day of the week from the drop down list in the Customise Dosing-Instruction form then enters appropriate doses under the appropriate days.

#### 10.3.1.2.1 Day of first dose

She also clicks the day name for Mon to deselect Monday. As Tuesday, Wednesday and Thursday follow Monday, they are automatically deselected too. Now it is clear the instruction only spans 3 days.

### 10.3.1.2.2 Accept the pattern

As the instruction does not include all 7 days, a Total Weekly dose is not calculated. Instead an average daily dose is shown.

However, where the instruction does not cover a full seven days, it is likely (as in this case) to include exceptional doses (essentially miss or boost doses) for certain days. Maggie's instruction contains a 4½ mg booster dose aimed at getting the patient's INR back into range, before reverting to his normal 3 mg per day. Consequently, the average of 3.5 mg is artificially high and not a sound basis for a subsequent dose calculation. To prevent an inappropriate dose like this one being used as the basis for a subsequent dose calculation, DAWN AC only calculates maintenance doses if the previous instruction spans 7 days.

Furthermore, as we have seen in the last scenario, DAWN also prevents dose calculation if the previous instruction contained a major edit. A major edit is where the doses for two or more days differ by more than the smallest unit used in the Regime. In this case, the smallest tablet strength used in the Regime is 1 mg and the smallest permitted part of a tablet is half a tablet. The smallest unit is therefore ½ mg. The doses for Friday and Sat differ by more than ½ mg so automatic calculation of the patient's next dose would be prevented for this reason too.

### 10.3.1.3 Scenario: Maintenance Dosing

The ability to edit dosing instructions is not only useful for Bridging therapy. In some cases, you may need to change which doses are specified for which days for Maintenance patients as well.

In many cases the Cycle button is a more convenient way of doing this as you can move an odd dose to a different day of the week without the risk of inadvertently changing the total weekly (or average daily) dose.

Maintenance Instruction (default)

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	1	1½	1½	1½	1	1½	1½

Maintenance Instruction (after clicking Cycle button once)

However, Maggie Marshall has just taken on a patient who until now attended a different clinic. This patient has been used to taking 3 mg on Saturday and Sunday and 1½ mg during the week. The pattern DAWN suggests for the same dose specifies the 1 mg doses on Monday and Friday. This particular patient is stable and has got used to taking the odd doses at the weekend so she is reluctant to change this. The cycle button is no use as it keeps the two odd doses 4 days apart, whichever days they fall on. Instead she edits the pattern and changes the first day of the week so Saturday and Sunday appear together, then moves the odd doses to the weekend.

Warfarin	Mon	Tue	Wed	Thu	Fri	Sat	Sun
mg	1½	1½	1½	1½	1½	1	1


As the average daily dose is updated each time Maggie change the dose for a particular day, she can use this value to ensure she ends up with the same overall dose as before. (If Maggie used Weekly Regimes, she would see a total weekly rather than an average daily dose.)

The next time Maggie doses this patient, so long as neither the dose nor regime have changed, DAWN AC carries the customised instruction forward.

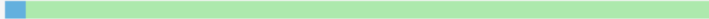
## 11 Stopping Treatment, Deactivating or Marking a Patient as Deceased

When a patient finishes therapy you must stop their Treatment Plan. If they are not about to start a new Treatment Plan for an alternative course of therapy, you should Deactivate their patient record to free up a patient license. If a patient dies, you can mark them as deceased (automatically stopping any treatment plan). The following sections describe how to perform each of these operations:

Patient ✕

 **TARGARYEN, Daenerys - Female - 01/01/1987 - 012 34**

Risk Class	Low
Pref. Clinic	Dalton Square Surgery GP (S)
Phone	01539563091 - home
Age:	30



<b>Diagnosis</b>	ATRIAL FIBRILLATION
Target Range	2.0 - 3.0
Start Date	01/10/2016 - Indefinite
	Sinthrome Mixed Tabs (plain text / Daily Avg)

Click on the hyperlink for treatment plan details ●

[Treatment Plan](#) < 1 > of 1 active [View](#)

[Risks](#)

## 11.1 Stopping Treatment

The screenshot shows the DAWN software interface for managing a patient's treatment plan. The top navigation bar includes the DAWN logo and links for Patient, Lists, Calls, Reports, and DAWN settings. Below the navigation bar, there are tabs for 'Patient' and 'Treatment plans'. The 'Treatment plans' tab is active, showing a list of treatment plans. The selected plan is 'Anticoagulation'. The details for this plan are as follows:

- Primary Diagnosis:** - ATRIAL FIBRILLATION (29/11/2017)
- Start date:** 01/10/2016
- First seen date:** (empty)
- Duration:** Long Term
- Preferred clinic:** Dalton Square Surgery GP (S)
- Preferred time:** From (empty) until (empty)
- Cessation Reason:** (None selected)
- Status:** active

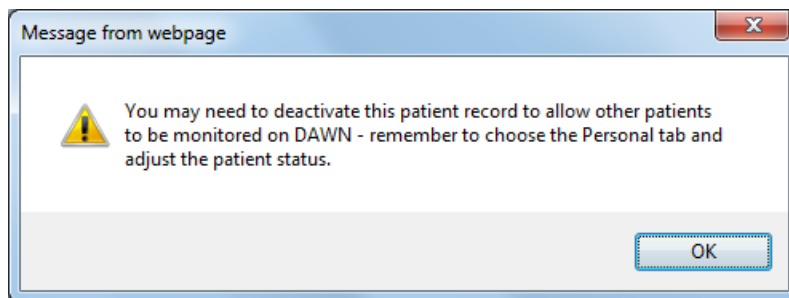
At the bottom right, there are three buttons: 'suspend', 'stop', and 'Admit'. A yellow callout bubble points to the 'stop' button with the text 'Click to stop the treatment plan'.

DAWN displays a message box asking you to confirm you wish to stop the Treatment Plan. The message box contains an optional free text notes field.

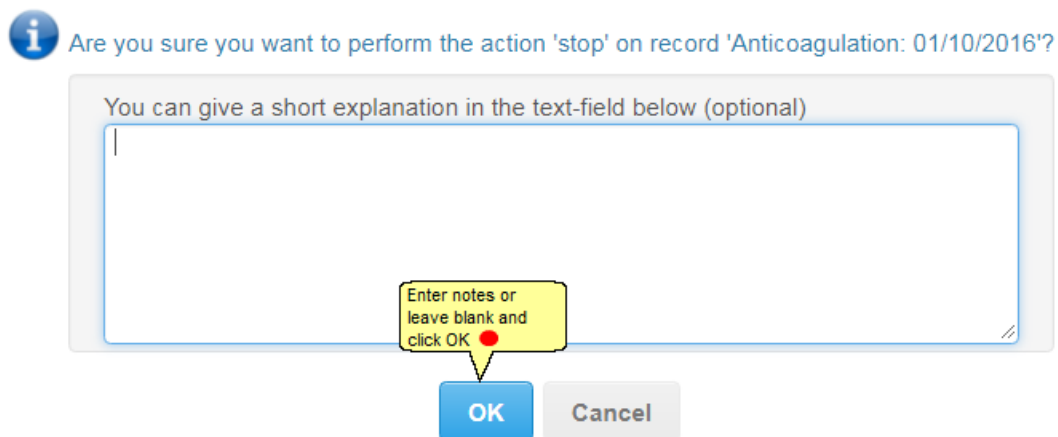
1. If you wish to enter a note explaining why treatment was stopped, type your note in the notes field.
2. Press OK to confirm you wish to stop the Treatment Plan.

The Treatment Plan status changes to *Stopped*.

If the patient has no other treatment plan active in another disease area (such as Haematology or DVT assessment), DAWN displays a message box reminding you to deactivate the patient). See the next section for instructions on deactivating patients.

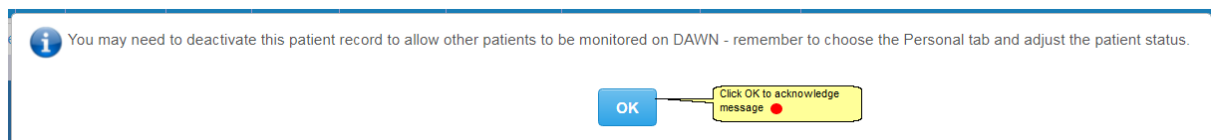


### 11.1.1 Add an optional note about stopping



Deactivate patient reminder

### 11.1.2 Deactivate patient reminder



## 11.2 Deactivating a Patient

DAWN is licensed in part on the number of active patients. When a patient stops treatment and is not about to start a new course of treatment, deactivate their patient record to free up a patient license. Inactive patients are still available to view and can be included in management, research and clinical audit reports.

GraphHistoryPersonalTreatment plansQuestionnairesTest ResultsInterface Warnings

Contact infoNext of kinClinicalOwnersAccountAudit

Personal and AddressContact

Last name

First name

Age

MRN

NHS Number ⓘ

NHS Number status ⓘ

Address 1

Address 2

Town

County

Post Code

Sex

Title

Date of birth

Date of Death

Ethnic origin

Language

Status

TARGARYEN

Daenerys

30

012 345 6789

Number present but not traced

4 The Square

Milnthorpe

Cumbria

LA7 7QJ

Female

Miss

01/01/1987

Caucasian


ICELANDIC

Active

Click to de-activate the patient

Deactivate

Deceased

 You cannot deactivate a patient without first stopping any active treatment plan (active in this sense also includes suspended, admitted, active admitted, discharged and non-attending statuses). If you attempt to deactivate a patient with an active treatment plan, DAWN prompts you to stop their treatment plan first.

## 11.3 Reactivating a Patient

The screenshot shows a patient management interface with the following elements:

- Navigation Tabs:** Graph, History, **Personal**, Treatment plans, Questionnaires, Test Results, Interface Warnings.
- Sub-Tabs:** **Contact info**, Next of kin, Clinical, Owners, Account, Audit.
- Section Headers:** Personal and Address, Contact.
- Form Fields:**
  - Last name: TARGARYEN
  - First name: Daenerys
  - Age: 30
  - MRN:
  - NHS Number: 012 345 6789
  - NHS Number status: Number present but not traced
  - Address 1: 4 The Square
  - Address 2:
  - Town: Milnthorpe
  - County: Cumbria
  - Post Code: LA7 7QJ
  - Sex: Female
  - Title: Miss
  - Date of birth: 01/01/1987
  - Date of Death:
  - Ethnic origin: Caucasian
  - Language: ICELANDIC
  - Status: Inactive
- Buttons:** Deceased, ReActivate.
- Tooltip:** Click to reactivate the patient (with a red dot icon).

## 11.4 Marking a patient as deceased

If a patient dies, you can mark them as deceased. Marking a patient as deceased automatically stops any active (or suspended, admitted, active admitted, discharged or non-attending) Treatment Plans.



GraphHistoryPersonalTreatment plansQuestionnairesTest ResultsInterface Warnings

Contact infoNext of kinClinicalOwnersAccountAudit

Personal and AddressContact

Last nameTARGARYEN

First nameDaenerys

Age30

MRN

NHS Number012 345 6789

NHS Number statusNumber present but not traced

Address 14 The Square

Address 2

TownMilnthorpe

CountyCumbria

Post CodeLA7 7QJ

SexFemale

TitleMiss

Date of birth01/01/1987

Date of Death

Ethnic originCaucasian

LanguageICELANDIC

StatusActive

DeactivateDeceased

Click to mark as deceased

See the section Editing System Settings for instructions on how to change *System Settings*.

See the section Setting up a Cessation Reason for more details on *Cessation Reasons*.

11.4.1 Deceased message

Are you sure you want to mark this patient as deceased?

Add an optional note and Click OK

[ OK ] [ Cancel ]

11.5 Quickly identifying a patients current status

The top left panel of their patient screen shows the treatment plan or patient status

- Active Treatment Plan
- Stopped Treatment Plan
- Suspended Treatment Plan

Non-attending Treatment Plan  
Admitted Active Admitted Treatment Plan  
New Treatment Plan

Inactive Patient  
Deceased Patient

The screenshot displays the DAWN (Digital Anticoagulation Workflow and Navigation) interface. At the top is a blue navigation bar with the DAWN logo and icons for Home, Patient search, Lists, Calls, and Reports. Below this is a tabbed interface with 'Patient' and 'Treatment plans' tabs. The 'Patient' tab is active, showing the patient's details: TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345. Below the patient name are several fields: Risk Class (Low), Pref. Clinic (Dalton Square Surgery GP (S)), Phone (01539563091 - home), and Age (30). A green progress bar is visible below these fields. The 'Diagnosis' section shows ATRIAL FIBRILLATION with a Target Range of 2.0 - 3.0, Start Date of 01/10/2016 - Indefinite, and Anticoagulant of Sinthrome Mixed Tabs (plain text / Daily Avg). The 'Treatment Plan' section shows a list of 1 active plan, with the word 'active' highlighted in a red box. A 'View' button is next to the plan. The 'Risks' section is partially visible at the bottom.

DAWN®

Home Patient Lists Calls Reports

Patient × Treatment plans ×

TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345

Risk Class Low

Pref. Clinic Dalton Square Surgery GP (S)

Phone 01539563091 - home

Age: 30

Diagnosis ATRIAL FIBRILLATION

Target Range 2.0 - 3.0

Start Date 01/10/2016 - Indefinite

Anticoagulant Sinthrome Mixed Tabs (plain text / Daily Avg)

Treatment Plan < 1 > of 1 active View

Risks

Active patient with an active treatment plan

DAWN®

[Patient](#)

[Lists](#)

[Calls](#)

[Reports](#)

Patient

Treatment plans

TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345

Risk Class

Low

Pref. Clinic

Dalton Square Surgery GP (S)

Phone

01539563091 - home

Age:

30

Diagnosis

ATRIAL FIBRILLATION

Target Range

2.0 - 3.0

Start Date

01/10/2016 - Treatment stopped

Anticoagulant

Sinthrome Mixed Tabs (plain text / Daily Avg)

Treatment Plan

< 1 > of 1 stopped

View

Risks

Active patient with a stopped treatment plan

**DAWN**<sup>®</sup>HomeSearch PatientListsCallsReports

Patient Treatment plans

**TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345**

**Risk Class**

Low

**Pref. Clinic**

Dalton Square Surgery GP (S)

**Phone**

01539563091 - home

**Age:**

30

**Diagnosis**

ATRIAL FIBRILLATION

**Target Range**

2.0 - 3.0

**Start Date**

01/10/2016 - Treatment stopped

**Anticoagulant**

Sinthrome Mixed Tabs (plain text / Daily Avg)

**Treatment Plan**

< 1 > of 1 **Inactive** View

**Risks**

Inactive patient

DAWN®

Home

Search Patient

Lists

Calls

Reports

Patient

Treatment plans

TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345

Risk Class

Low

Pref. Clinic

Dalton Square Surgery GP (S)

Phone

01539563091 - home

Age:

30

Diagnosis

ATRIAL FIBRILLATION

Target Range

2.0 - 3.0

Start Date

01/10/2016 - Treatment stopped

Anticoagulant

Sinthrome Mixed Tabs (plain text / Daily Avg)

Treatment Plan

< 1 > of 1


Deceased

View

Risks

Deceased patient

Patient ✕

 SNOW, Jon - Male - 0123456789

Risk Class High

Pref. Clinic Dalton Square Surgery GP (S)

Phone - home

Age:

**Diagnosis**

Target Range

Start Date 09/01/2018 ⓘ -

Anticoagulant No Set

Treatment Plan < 1 > of 1 New Report

**Risks**

Active patient with no Treatment Plan

## 12 Dosing a Warfarin or other Vitamin K Antagonist Patient

This section gives a workflow of how to dose a patient within the DAWN system and give them a next test date.

**TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 The Square, Milnthorpe**

**Risk Class:** High

**Pref. Clinic:** Dalton Square Surgery GP (S)

**Phone:** 01539563091 - home

**Age:** 30

**Diagnosis:** ATRIAL FIBRILLATION

**Target Range:** 2.0 - 3.0

**Start Date:** 01/10/2016 - Indefinite

**Anticoagulant:** Sinthrome Mixed Tabs (plain text / Daily Avg)

**Treatment Plan:** < 1 > of 1 active

**Risks:** Patient is colour blind

**Dosing History:**

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 29/11/2017	0.0	0.00 d					Ask patient
Wed 01/11/2017	2.3	3.00 d					
Sun 01/01/2017	2.4	3.00 d					
Mon 07/11/2016	2.1	3.00 d					
Fri 07/10/2016	1.9	3.00 d					

### 12.1 Entering INR and Test Date

**1/01/1987 - 012 345 6789 / 02 - 4 The Square, Milnthorpe**

**Warning:** Warning indicates there are other interacting drug(s) present. Beware! Please note: The dosing algorithm does not adjust for interacting drugs you need, if necessary, to make a manual adjustment for a patient starting or stopping an interacting drug.

**You can enter the INR Here. Click here to see what happens if there has been a large INR change.**

**To make a computer aided dose and next test date recommendation, click here on Accept INR button or press the Enter key on the right of your keyboard.**

**Please note, if the test date either before today or in the future, click to accept today's date date.**

**Click here on the treatment record to view the detailed patient treatment screen.**

**Inbound results interfaces into DAWN AC may occasionally bring in more than one result for a patient for a number of reasons. If this happens, the second result is held in the interface messages tab and an alert is highlighted, warning customers that there is something in the tab that needs attention. It is important that any Interface Warnings are checked before dosing as they may contain information of relevance to the dosing decision.**

**Dosing History:**

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 30/11/2017	0.0	0.00 d					Ask patient
Wed 01/11/2017	2.3	3.00 d					
Sun 01/01/2017	2.4	3.00 d					
Mon 07/11/2016	2.1	3.00 d					
Fri 07/10/2016	1.9	3.00 d					



**HINT**

When you enter and Accept an INR, the INR time is automatically recorded as the current time at this moment. This allows you to order list views or reports by the INR time to ensure you deal with INRs received earlier ahead of INRs received later. If you know the real sample time of the INR and you want to use this instead, you can amend the INR time on the Detailed Treatment Screen.

## 12.1.1 Calendar

INR:  Date: 22/12/2017

Click on < > to change the month or year.

The pop up calendar is displayed.

Click on the date you want.

Today's date is automatically highlighted. Click here on the date.

December 2017

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Accept INR DNA Un-schedule

## 12.2 Detailed Treatment Screen

Treatments for DosingEngineTest Aardvark (01/01/1911) # A1 /

INR: 2.1 InRange ✓ Date: 13/07/2020 ✓ Not scheduled

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (1 mg)	5½	5	5	5½	5	5	5
Total mg	5½	5	5	5½	5	5	5

Dose: 36.00 w ✓ Next: 03/08/2020 3 wk

Accept dose

Miscellaneous Status history Audit INR/Dose History VGR

AC Therapy

Non Attendance Count

Treat as Priority

See Dr Flag

Seen Dr Flag

Sample No

Inpatient

Contact Status

Auto Authorisation Result

INR Time

Maintenance

Priority Risk Class

INR time defaults to the time the INR was entered into DAWN but you can change it to be the real sample time if you have it.

Click here on the Save button to save and return to the main patient screen.

If the treatment record has been flagged as a priority, this checkbox is checked and the reason shown here. You can manually check or uncheck this checkbox to change the priority setting for this treatment record.

If the auto authorising module is turned on, then the Auto Authorisation Result field will display reasons why the result hasn't been auto authorised (if this is the case).



## 12.3 Entering INRs Significantly Different From Previous

Warning: You entered an INR that is significantly different from the previous INR (current INR: 4.2, previous INR: 2.3). Please correct the INR or click the red ? to accept the current value.

Please note the orange background signifies a possible problem.

Click here on the OK button to clear warning message.

The red warning shows that the current INR is significantly different from previous INR (see the warning below). Please check or click on Red ? icon to acknowledge this. This will be documented in the audit trail.

Please note, the INR difference that triggers this warning is set within the System Keys.

This warning message box pops up.

INR: 4.2

Date: 29/11/2017

Not scheduled Schedule

Treatment Notes

Ask patient about her homeopathic remedies

Accept INR DNA Un-schedule Scheduled

## 12.4 Entering INR Date That is Not Today

TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 The Square, Milnthorpe

Risk Class: Low

Pref. Clinic: Dalton Square Surgery GP (S)

Phone: 01539563091 - home

Age: 30

Diagnosis: ATRIAL FIBRILLATION

Target Range: 2.0 - 3.0

Start Date: 01/10/2016 - Indefinite

Anticoagulant: Sinthrome Mixed Tabs (plain text / Daily Avg)

Treatment Plan: < 1 > of 1 active

Risks: Patient is colour blind

Click here to accept the INR or hit the Enter key to display the recommended dose instruction and next test date.

Click on ? and a red exclamation mark ! appears. This is logged within the audit trail too.

The INR date is not today. Alter this date to today or click here on the Calendar icon to select a new date or click on blue icon to set date to today.

INR: 2.6

Date: 29/11/2017

Accept INR DNA Un-schedule Scheduled

Date	INR	Dose	Dosing Instructions
Wed 29/11/2017	0.0	0.00 d	
Wed 22/11/2017	1.7	3.00 d	
Wed 01/11/2017	2.3	3.00 d	
Sun 01/01/2017	2.4	3.00 d	

## 12.5 Automatically Flagging the Treatment as a Priority

When you **input an INR**, DAWN automatically flags the treatment as a priority if:

- The INR is  $\leq 1.5$  or  $\geq 4$
- The patient's treatment plan status is "Active Admitted" (*in other words, the patient has been admitted to hospital but you are still monitoring their INR's and advising on their dosage*).
- The patient's planned last test interval is less than 7 days. *Where possible, this means the intended next test interval. In other words, if the patient was due to be tested again in 3 days, but was actually tested several days late, the record would still be flagged. Only where the last treatment record was added as history (and so does not have a recommended next date) does DAWN use the actual interval between the last INR and the current one.*

When you **authorise a dose**, DAWN automatically flags the treatment as priority if:

- The next planned test date is in less than 7 days.

When a **next test record is created** (this usually happens automatically on authorising the last dose), DAWN automatically flags the treatment as priority if:

- The patient's planned last test interval is less than 7 days. (This helps prioritise follow up of non-attenders).

In addition to these hard and fast rules, the risk class look up table has an additional *Treat as Priority* checkbox, which allows you to mark a risk class as priority. When an INR is input for a patient with a priority risk class, or if the patient's risk class is changed to a priority risk class while they have an INR and dose which is yet to be authorised, the treatment record is flagged as a priority.

These priority flags can be used in List Views and Front Screen Tallies/Dashboard Panels to group patients into *priority* and *routine* groupings. This helps to expedite the dosing and contacting of priority patients.

The flags can also be used in Message Templates for conditional wording, or in Reports to show statistics on priority versus routine INRs.

You can manually change the *Treat As Priority* flag for a treatment record. See section, Detailed Treatment Screen, for details.

## 12.6 Accept the Dosing Instruction

INR date or date of instruction is displayed here.

INR: 3.7 High ✓ Date: 29/11/2017 ✓

Letters Drugs Events Procedures Reviews Reminders Groups Documents

Not scheduled

• Dose changed by 17%  
• Dose Change: 1 OUT OF 1 ABOVE 3.3  
• HIGH INR: CHECK WITH PATIENT

Warnings and important information messages are displayed here.

The Dosage instruction appears here

2mg/3mg ALTERNATE DAYS

The numerical dose is displayed here.

Dose 2.50 d ✓ Dose decreased by 17% Next 13/12/2017 2 wk ✓

The next test date is displayed here.

This section gives the % dose change and direction.

Accept dose New Tested No Further Tests

Treatment Notes

Ask patient about her homeopathic remedies

Inbound INR interfaces may occasionally bring in more than one result for a patient. If this happens, the second result is held in the Interface Warnings tab with an exclamation mark shown to warn the user that there is something in the tab that needs attention.

It is important that any Interface Warnings are checked before dosing as they may contain information that will affect the dosing decision.

The history lines of dose instructions are displayed here.

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 29/11/2017	3.7	2.50 d	2mg/3mg ALTERNATE DAYS	2 wk			Ask patient about her homeopathic remedies
Wed 01/11/2017	2.3	3.00 d					
Sun 01/01/2017	2.4	3.00 d					
Mon 07/11/2016	2.1	3.00 d					
Fri 07/10/2016	1.9	3.00 d					

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings

This is a visit % time in range indicator.

## 12.7 Amending the Dosing Instruction

Click here to skip or miss days of treatment or to boost treatment temporarily.

Click here to undo the dose recommendation and start again.

Click here to keep the dose the same as the previous visit.

Click here to increase the dose.

Click here to decrease the dose.

Click here to give no dose at all.

Click here to cycle the tablets to give temporarily boost or lower the dose when the tablet pattern over the week is uneven. See above - Wed and Sun have 3mg and the rest are 2½.

Click here to see an example when the Cycle button is clicked.

Click here to accept the dose when completed.

Type in your revised date or type e.g. +1w for One week  
+2w for Weeks  
+7d for seven days  
+10d for ten days  
Or Click on Calendar and choose a date.

If a dose change is entered and authorised either via the Dosing tab or through adding history that exceeds the maximum percentage change allowed for the patient's treatment plan or 25%, whichever is the lower threshold, then the patient is automatically switched over to Manual/Bridging therapy and a warning message is displayed. Click here to view the warning.

Accept dose

New INR/Dose

Dose	Dosing Instructions	Time	DNA	In range	Comments
2.64 d	Warfarin Sun Mon Tue Wed Thu Fri Sat mg 3 2½ 2½ 3 2½ 2½ 2½	2 wk			
Wed 22/11/2017	1.7 3.00 d				
Wed 01/11/2017	2.3 3.00 d				

See Customising dosing instructions to learn how you can completely customise the dosing instruction - change the doses for each day individually; change the first day of the week; leave days out of the instruction (if it spans less than 7 days; or add a Low Molecular Weight Heparin instruction.

### 12.7.1 Dose Decrease

Hitting the down facing arrow decreases the dose by one increment each time.

Please note the deeper shade of blue indicating a bigger dose decrease.

Accept dose

New INR/Dose

Tested

No Further Tests ☐

## 12.7.2 Dose Increase

INR: 1.7 Low ✓ Date: 18/12/2017 ✓

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3	3	3	3	3	3	3

Please note the white background indicating no dose change. Normally dose increases show a pink/red background when the dose is higher than the previous dose.

This has increased the dose. It has moved to No Dose change from a 12% decrease.

Dose: 3.00 d ✓ No dose change Next: 25/12/2017 7 d ✓

Accept dose New INR/Dose Tested No Further Tests ☐

## 12.7.3 Undo Dose / INR before authorisation

INR: 1.7 Low ✓ Date: 18/12/2017 ✓

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3	3	3	3	3	3	3

This icon resets the record.

Dose: 3.00 d ✓ No dose change Next: 25/12/2017 7 d ✓

Accept dose New INR/Dose Tested No Further Tests ☐

Please note: you cannot use the quick reset button to remove a scheduled next test which has INR or dose information in the audit trail. In other words, a record that has had an INR entered and then been reset back to its original scheduled state. If you inadvertently remove such a record you make it much harder to find out what the INR and dose were, because you cannot simply click on the record to show its full details and look in Audit tab. As such, if you really do need to remove a scheduled next test that has INR or dose information in the audit trail, you must click the record in the history tab to display its full details, unschedule it then delete it manually.

## 12.7.3.1 Delete the dose and INR warning

localhost says:

CAUTION: this action will DELETE the INR and dose.

Please confirm you wish to continue.

Click OK to delete the INR and dose

OK Cancel

Dosing Contacts Letters Drugs **1** Events Procedures Review

INR: 2.2 In Range ✓ Date: 12/01/2018 ✓ ↺

(Sched

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Dose 3.00 d ✓ No dose change Next 26/01/2018 2 wk ⚠

Accept dose New INR/Dose Tested No Further Tests ☐

## 12.7.3.2 INR and dose deleted

Dosing Contacts Letters Drugs **1** Events Procedures Reviews Reminde

INR:  ★ ✓ Date: 12/01/2018 📅 ⬇️ ✓ ↺

(Scheduling info not availa

Treatment Notes ⓘ

Accept INR DNA Un-schedule Scheduled

Graph History Personal Treatment plans Questionnaires Test Results Interface

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA																																
Fri 12/01/2018	0.0	0.00 d																																			
ⓘ Wed 03/01/2018	2.3	3.00 d	<table border="1"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg)</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (½ mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total mg</b></td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								<b>Total mg</b>	3	3	3	3	3	3	3	2 wk	
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																														
Pills (3 mg)	1	1	1	1	1	1	1																														
Pills (½ mg)																																					
<b>Total mg</b>	3	3	3	3	3	3	3																														

## 12.7.4 Undo Dose / INR after authorisation

If you authorise a dose and then discover new information that means the dose is no longer appropriate (perhaps you speak to the patient and discover the reason their INR has dropped low is that they forgot to take their tablets), use the reset button next to the scheduled next test date to remove the next test and make the current INR and dose editable again.

Dosing | Contacts | Letters | Drugs **1** | Events | Procedures | Reviews | Reminders | Groups | Documents

INR:  ★ ✓ Date: 16/01/2018

Click here to undo the dose

Tue 16/01/2018, 09:15 - 09:30: Dalton Square Surgery GP (S) Reschedule

Treatment Notes

Accept INR DNA Un-schedule Scheduled

Graph | History | Personal | Treatment plans | Questionnaires | Test Results | Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Tue 16/01/2018	0.0	0.00 d					
Tue 09/01/2018	1.8	3.36 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg)  1 1 1 1 1 1 1 Pills (½ mg)  1 1 1 1 1 1 1 <b>Total mg</b> 3 3.5 3.5 3 3.5 3.5 3.5	7 d			

### 12.7.4.1 Status returned to pre-authorised state

Dosing | Contacts | Letters | Drugs **1** | Events | Procedures | Reviews

INR: 2.4 In Range ✓ Date: 15/01/2018 ✓ Not scheduled

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Edit the dose or next test date or click again to delete this INR and dose

Treatment Notes

Dose 3.00 d ✓ No dose change Next 29/01/2018 2 wk ✓

Accept dose New INR/Dose Tested No Further Tests ☐

### 12.7.5 Tablet Shifts

Dosing | Contacts | Letters | Drugs **1** | Events | Procedures | Rev

INR: 1.8 Low ✓ Date: 18/12/2017 ✓ ↺

eg. The 3½ mg has moved from Wednesday to Tuesday.

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3½	3	3½	3	3½	3	3½

Dose 3.29 d ✓ Next 01/01/2018

Dose increased by 10%

Accept dose | New INR/Dose | Tested | No Further Tests ☐

On each click of the icon each tablet count is moved one position to the left.

### 12.7.6 Miss and Boost Days

Dosing | Contacts | Letters | Drugs **1** | Events | Procedures

INR: 4.7 High ⚠ Date: 18/01/2018 ⚠ ↺

0 mg for 4 days, then: ✓

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)							
Pills (½ mg)	4	5	4	5	4	5	4
Total mg	2	2.5	2	2.5	2	2.5	2

Dose 2.21 d ? Next 25/01/2018 7 d ✓

Dose decreased by 26%

If the Regime is expressed in tablets the Miss or Boost instruction is expressed in tablets. If the Regime is in mg, the Miss or Boost rule is expressed in mg. However, if the Patient Tablet Options or Regime specify Mixed Tablets (of more than one tablet strength), Miss or Boost instructions are expressed in mg.

### 12.7.6.1 Exceeding miss or boost days maximum

The screenshot shows a warning dialog box with the text: "The maximum value for the Miss-or-Boost days is 2". Below the dialog, the "Dosing" section displays the following information:

INR: 4.9 High ⚠ Date: 03/06/2019 ✓ ↶

0.00 mg for 3 days, then: ✓

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)							
Pills (1 mg)	2	1½	2	1½	2	1½	2
<b>Total mg</b>	<b>2</b>	<b>1.5</b>	<b>2</b>	<b>1.5</b>	<b>2</b>	<b>1.5</b>	<b>2</b>

Dose: 1.79 d ⚠ Dose decreased by 28% Next: 10/06/2019 7 d ✓

The miss or boost days maximum is controlled by the system key: MaxMissOrBoostDays

### 12.7.7 Zero Dose

The screenshot shows a warning dialog box with the text: "Warning: You entered a Zero-Dose. Please correct the Dose or click the red ? to accept the current value." Below the dialog, the "Dosing" section displays the following information:

INR: 4.4 High ⚠ Date: 18/12/2017 ✓ ↶

0.00 mg for 1 days, then: ✓

Take no Warfarin

The dark blue background indicates a ZERO dose.

This is the No dose change icon.

This is the zero dose icon.

To cancel a Zero dose either:  
click on the undo icon  
or  
click the up arrow to increase the dose  
or  
click on the No dose change icon


Dose: 0.00 d ? (dose zero) Next: 25/12/2017 7 d ✓

Buttons: View, Accept dose, New INR/Dose, Tested, No Further Tests ☐



### 12.7.8 Set No Dose Change

[Dosing](#) [Contacts](#) [Letters](#) [Drugs 1](#) [Events](#) [Procedures](#) [Re](#)

INR: 4.4 **High**  Date: 18/12/2017

+/- 0.00 mg for 1 days, then: ✓

Take no Warfarin




Dose 0.00 d? (dose zero) Next 25/12/2017 7 d ✓

Accept dose New INR/Dose Tested No Further Tests ☐


Please note that there is now no coloured background behind this message indicating no dose change

### 12.7.9 Test Date Changes for a Warfarin or Other Vitamin K Antagonist Patient

[Dosing](#) [Contacts](#) [Letters](#) [Drugs 1](#) [Events](#) [Procedures](#) [Reviews](#) [Reminders](#) [Groups](#) [Documents](#)

INR:  ★ ✓ Date: 02/02/2018   


Fri 02/02/2018, 08:45 - 09:00: Outreach Nurse Clinic Barnet [Reschedule](#)

Treatment Notes 

Accept INR DNA Un-schedule Scheduled

[Graph](#) [History](#) [Personal](#) [Treatment plans](#) [Questionnaires](#) [Test Results](#) [Interface Warnings](#)

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Fri 02/02/2018	0.0	0.00 d					
Wed 03/01/2018	2.3	3.00 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (2 mm) 1 1 1 1 1 1 1	2 wk			

Click here on the blue 'Reschedule' hyperlink to select a new clinic diary date and time.

### 12.7.9.1 Select a new date from the diary

Clinic Diary ✕

Select an appointment for TARGARYEN Daenerys (01/01/1987) # / 012 345 6789

**Recommended**

Recommended date: Wed 17/01/2018

Recommended interval: 14 days

Preferred clinic: Dalton Square Surgery GP (S)

**Clinic**

Clinic: Dalton Square Surgery GP (S)

Date: 18/01/2018

Change the clinic by selecting the clinic from the drop down list

☐	Sun 14/01/2018 --- 11 (-3d/-21%)	Mon 15/01/2018 16 (20) 12 (-2d/-14%)	Tue 16/01/2018 14 (20) 13 (-1d/-7%)	Wed 17/01/2018 24 (38) 14	Thu 18/01/2018 15 (20) 15 (+1d/+7%)	Fri 19/01/2018 14 (20) 16 (+2d/+14%)	Sat 2
☐	☐	☐	☐	☐	☐	☐	☐

Diary for Thu 18/01/2018

From	Until	Cap. Left	Reserved cap. left	
08:00	08:15	0	1	☐ (Select)
08:15	08:30	0	1	☐ (Select)
08:30	08:45	0	1	☐ (Select)
08:45	09:00	0	1	☐ (Select)
09:00	09:15	0	1	☐ (Select)
09:15	09:30	1	1	☐ Select
09:30	09:45	1	1	☐ Select

Choose the preferred time by clicking on Select

## 12.8 Monitoring the Patient's Time In Range

DAWN calculates the patient's time in therapeutic range using the Rosendaal method. It displays the time in range in two ways.

Time in Therapeutic range on Treatment Plan Screen

Time in Therapeutic Range on History Screen

### 12.8.1 Patient's TTR on Treatment Plan

The screenshot shows the DAWN patient interface. At the top is a navigation bar with 'DAWN' logo and icons for Home, Patient, Lists, Calls, and Reports. Below this is a 'Patient' tab with a close icon. The patient details section shows: TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 67. Below this are dropdown menus for Risk Class (Low), Pref. Clinic (Dalton Square Surgery GP (S)), and Phone (01539563091 - home). The Age is 30. A horizontal bar chart shows the time in range (TTR) with a green bar representing 94% in range. A tooltip over the bar states: '94% - in range last 12 months (incl manual / bridging)'. Below the bar chart are fields for Diagnosis (ATRI), Target Range (2.0 - 3.0), Start Date (01/10/2016 - Indefinite), and Anticoagulant (Warfarin 1mg Strength (in mg/ Daily)). At the bottom, there is a 'Treatment Plan' section showing '< 1 > of 1 active' and a 'View' button. Below that is a 'Risks' section.

By default the time period is the last 12 months but you can change this by amending the *PercentageInRangeDayCount* system setting.

With the "factory settings" untouched, the time in range displayed here excludes any INRs that were recorded while the patient was on induction or manual/bridging therapy. The grounds for their exclusion is that during periods of induction or bridging, the INR is deliberately or inescapably low and these figures distort the overall performance.

However, some centres also use DAWN reports to find patients above or below certain time in range thresholds. If these reports include induction and manual/bridging INRs, there can be a confusing discrepancy between the bar chart and the report. Other sites keep certain patients on manual therapy for prolonged periods. In this case, excluding manual therapy INRs can give a misleading picture. To avoid such issues, you can configure the time in range bar to include all INRs, regardless of therapy, by changing the *TimeInRange\_UseBridgingInCalculation* system setting to 1.

Hover over the low, in range or high section of the time in range bar to see a tool tip giving the exact figure. The tool tip also tells you the time period the bar chart covers and whether manual/bridging and Induction INRs are included.

**Please note:** to conserve space and preserve legibility the tool tip does not differentiate between manual/bridging and induction. If it says manual/bridging INRs are included then induction INRs are also included; if it says manual/bridging INRs are excluded then induction

INRs are too.

## 12.8.2 Patient's TTR on History

On the **History** tab in the bottom right hand quadrant of the patient screen, the system also displays a bar chart showing time in, above and below range between each INR and the previous result. This allows you to see how the time in range has changed over recent weeks or over longer periods if you scroll down.

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Date	INR	Dose	Dosing Instructions	Time	DNA	In range
Wed 29/11/2017	4.2	2.50 d	2mg/3mg ALTERNATE DAYS	7 d		<div><div></div><div></div><div></div></div>
Wed 22/11/2017	1.7	3.00 d				<div><div></div><div></div><div></div></div>
Wed 01/11/2017	2.3	3.00 d				<div><div></div><div></div><div></div></div>
Sun 01/01/2017	2.4	3.00 d				<div><div></div><div></div><div></div></div>
Mon 07/11/2016	2.1	3.00 d				<div><div></div><div></div><div></div></div>
Fri 07/10/2016	1.9	3.00 d				<div><div></div><div></div><div></div></div>

## 12.9 Patient Switched to Manual/Bridging Therapy

This patient has been moved to manual/bridging therapy as their dose change of 33% is outside the boundaries of normal maintenance dosing. Do not switch the patient back to maintenance therapy until you are fully confident they have achieved maintenance dose.

OK

This message is shown because of a large dose change. Care should be taken to check the message contents before clicking OK, in case the dose change is due to an error when entering the dose.

INR:  Date: 06/12/2017

Treatment Notes

Accept INR DNA Un-schedule Scheduled

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 06/12/2017	0.0	0.00 d					
Wed 29/11/2017	1.4	4.00 d	4mg DAILY				
Wed 22/11/2017	1.7	3.00 d					

A note can be automatically entered into the treatment notes to explain why the patient has been moved over to manual/bridging therapy. See system settings

Ask patient about her ho

Diagnosis: ATRIAL FIBRILLATION

The patient has now been moved to Manual/Bridging therapy. While the patient is on manual/bridging therapy, the healthcare professional must manually dose the patient. To move the patient back onto maintenance therapy once the patient is stable again, change the therapy option within the patient's treatment plan.

Click on the Treatment Plan button to move the patient back to maintenance.

Manual/Bridging

Treatment Plan < 1 > of 1 active View

Risks

## 12.10 Switching Patient Back to Maintenance Therapy

**DAWN** | Home | Patient | Lists | Calls | Reports | DAWN | Management | Information | Search

List View X

**Confirm stable dose**  
Switching to maintenance therapy activates automatic maintenance dose calculation for this patient. To switch to maintenance therapy you must confirm that the patient is on a stable maintenance dose.  
Can you confirm this patient is on a stable maintenance dose?

Anticoagulant: Warfarin  
Brand: UK Generic  
Tablet Strength: Pills (5 mg)  
Tablet Strength: Pills (3 mg)  
Tablet Strength: Pills (1 mg)  
Show Total mg Dose Line: Yes  
Record Dose As: Daily Average  
Split Tablet Into: Half a Tablet  
Dose In: Tablets

Primary Diagnosis: DVT NOT SPECIFIED (25/11/2006)  
Start date: 20/02/2006  
Duration: Long Term  
Indefinite  
Preferred clinic: Doms Anticoagulant Clinic  
Preferred time: From until  
Cessation Reason: On choosing the Maintenance radio button on the treatment plan to move the patient back to maintenance therapy again, a warning message is displayed.  
Status: active  
This is asking the user to confirm that the patient is on a stable maintenance dose (a requirement for using the maintenance module). If the patient is stable, click on the Yes button. If you choose No, then the patient will stay on Manual/Bridging therapy.

Therapy  
ACTherapy | Induction | Maintenance | Manual/Bridging

## 12.11 Treatment Notes

Dosing | Contacts | Letters | Drugs 1 | Events | Procedures | Reviews | Reminders | Groups | Documents

INR:  Date: 06/12/2017

Wed 06/12/2017, 09:45 - 10:00: Dalton Square Surgery GP (S) Reschedule

Treatment Notes  
Missed last two doses

Accept INR DNA Un-schedule

Scheduled  
Accept dose

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 06/12/2017	0.0	0.00 d					
Wed 29/11/2017	1.4	4.00 d	4mg DAILY	7 d			Ask patient about her homeopathic remedies

### 12.11.1 Treatment Notes Highlighted

Dosing | Contacts | Letters | Drugs 1 | Events | F

INR:  Date: 06/12/2017

Wed 06/12/2017, 09:45 - 10:00: Dalton Square Surgery GP (S) Reschedule

Treatment Notes  
Missed last two doses

Accept INR DNA Un-schedule

Sched

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 06/12/2017	0.0	0.00 d					Missed last two doses

## 12.12 Authorise Dose

## 12.13 Authorise Messages

## 12.14 Stop Scheduling a Next Test Date

In some situations, such as at the end of a short term treatment plan, you may not want to schedule a next test date/appointment.

When an INR has been accepted, a checkbox will be displayed which allows you to stop scheduling further appointments.

INR: 2.9 In Range ✓ Date: 29/11/2017 ✓ Not scheduled

3mg DAILY

Dose 3.00 d ✓ No dose change Next 20/12/2017 3 wk ✓

Accept dose New INR/Dose Tested No Further Tests ☐

Check this checkbox if you do not want to schedule an appointment for this patient

The checkbox will only be displayed an INR has been accepted.

Leaving the checkbox unchecked will process the test as normal and schedule a next test date.

If you do not wish to schedule a next test as the current test will be the last for the patients treatment plan, you can check the checkbox and click Authorise to skip creating a next test date.

ADAMS, Julie - Female - 01/08/2006 - 012 345 6789 / 02 - 39 MAES YR & HAF, LEEDS & District - 21 STILEMAN HOUSE, Dr H Heritage

PAEDIATRIC PATIENT

Risk Class Paediatric Patient

Pref. Clinic Dalton Square Surgery GP (S)

Phone 01539563091 & 115 - home

Age: 11

Diagnosis AF & CARDIOVERSION ...

Target Range 2.0 - 3.0

Start Date 26/08/2006 - Indefinite

Anticoagulant Warfarin 2 & 1mg Tablets With Halves Daily

Treatment Plan 1 of 1 active

Risks current or recent gastrointestinal ulceration

INR: 2.6 In Range ✓ Date: 06/12/2017 ✓ Not s

Warfarin Sun Mon Tue Wed Thu Fri Sat

2mg 1 1 1 1 1 1

1mg 1/2 1/2 1/2 1/2 1/2 1/2

Dose 2.43 d ✓ No dose change Next 27/12/2017 3 wk

Accept dose New INR/Dose Tested No Further Tests ☒

No further test set. Click Accept dose and authorise to authorise the current dose

Checking the checkbox and clicking 'Authorise' will authorise the current dose without creating a next appointment.

## 12.15 Changing Tablet Options

If a patient's dose changes significantly, he or she may be more suited to a different tablet strength. Likewise, if a patient struggles with splitting tablets into halves or quarters, you may wish to change their settings so DAWN only produces doses that can be achieved using whole tablets. If you use different brands of an anticoagulant, a patient may swap from one brand to another.

**TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 The Square, Milnthorpe**

TIR% **Above Average** VGR **Above Average (max diff: 0.9)**

Risk Class: Low  
 Pref. Clinic: Dalton Square Surgery GP (S)  
 Phone: 01539563091 - home  
 Age: 31

**Diagnosis** ATRIAL FIBRILLATION  
 Target Range: 2.0 - 3.0  
 Start: 01/10/2016 - Indefinite  
 Anticoagulant: Warfarin 3 & 0.5mg Whole Tablets Daily

**Treatment Plan** < 1 > of 1 active **Report**

**Risks**

Patient is colour blind

Dawn Hospital - Support DAWN - 29/11/2017 13:16

**Dosing** **Contacts** **Letters**

INR:  ★ ✓

**Accept INR** **DNA** **Un-schedule**

**Graph** **History** **Personal**

Add history data

Date	INR	Dose	D
Tue 30/01/2018	0.0	0.00 d	
	4.2	2.43 d	P
			P
Wed 03/01/2018	2.3	3.00 d	P
			P
			P
Wed 27/12/2017	2.1	3.00 d	P
			P

### 12.15.1 Switch to Custom Tablet Options

If the patient is on a preset *Dosing Regime*, you can either choose an alternative regime or you can switch to *Customised Tablet Options* and change the tablet options individually to tailor them to the patient's requirements. Likewise if a patient already has customised tablet options settings, you can edit their existing settings or choose to move them to a preset regime.



### Dosing and Tablet Options

☐ Use Dosing Regime?

☒ Use Customised Tablet options?

Warfarin 1, 3 and 5 strength tablets

Anticoagulant:	Warfarin	Record Dose As:	Daily Average
Brand:	UK Generic	Split Tablet Into:	Half a Tablet
Tablet Strength:	Pills (5 mg)		
Tablet Strength:	Pills (3 mg)		
Tablet Strength:	Pills (1 mg)		
Show Total mg Dose Line	Yes	Dose In	Tablets

Edit tablet options

Edit Tablet Options

## 12.15.2 Customise the Tablet Options

### Patient Tablet Options Settings ✕

**Anticoagulant:** Warfarin

**Brand:** UK Generic (Warfarin)

**Dose In:** Tablets

**Note:** Tablets must be selected in descending order.

**Tablet Strength:** Pills (3 mg), Blue (UK Generic (Warfarin))

**Tablet Strength:** Pills (½ mg), White (UK Generic (Warfarin))

**Tablet Strength:** (None selected)

**Show Total MG Instructions Line:** ☒

**Note:** Clicking the View Sample Instructions link produces Sample instructions for the tablet options selected in a new window.

The process can take a few minutes to run depending on the options selected.

**Record Dose As:** Daily Average

**Split Tablet Into:** Whole tablet

View Sample Instructions

Click to save the settings

OK

Cancel

### 12.15.3 Saved tablet options

Dosing and Tablet Options

☐ Use Dosing Regime?

(None selected) ▼

☒ Use Customised Tablet options?

Anticoagulant:	Warfarin	Record Dose As:	Daily Average
Brand:	UK Generic	Split Tablet Into:	Whole Tablet
Tablet Strength:	Pills (3 mg)		
Tablet Strength:	Pills (1 mg)		
Show Total mg Dose Line	Yes	Dose In	Tablets

Edit Tablet Options

## 12.16 Adding additional INRs or doses for a day

By default, DAWN only allows recording one INR and dose per day. However, you can change a system setting to allow you to record multiple INRs and/or doses for the same day, if necessary. The following sections show how to switch on this functionality and describe three scenarios, which illustrate how you might use this feature and each of its options.

Switch On the Option to Record more than One INR or Dose Per Day

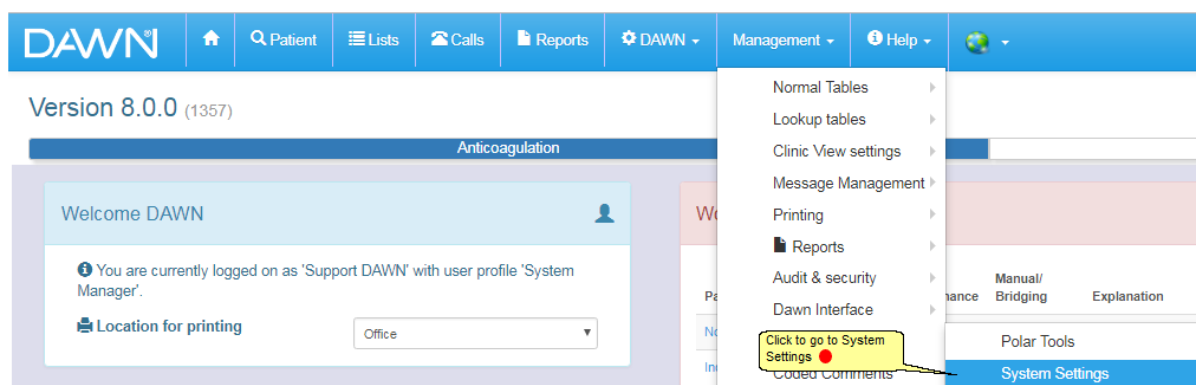
Recording an additional INR when a patient is tested twice on the same day

Changing an Already Authorised Dose but Retaining a Record of the Original

Recording a Second INR and Dose while Retaining the Original INR and Dose for a Day

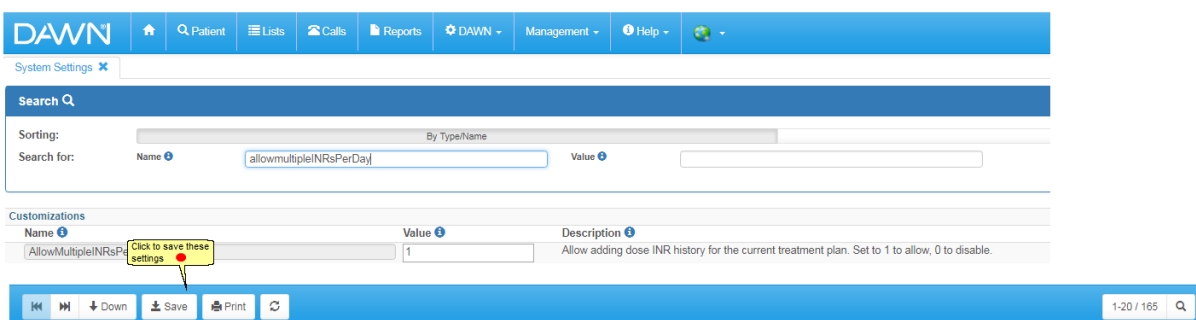
### 12.16.1 Switch On the Option to Record more than one INR or Dose for a Day

Changing the system setting to allow one or more INR or doses per day.



### 12.16.2 Changing the system setting to permit more than one INR per day

To enable you to record more than one INR or dose per day, change the **AllowMultipleINRsPerDay** system setting to 1.



### 12.16.3 New INR and dose button enabled

With this setting enabled an additional "New INR/Dose" button is present in the patient's dosing panel once you have entered an INR but not yet accepted the dose.

INR: 4.4 High 🚩 Date: 29/01/2018 ✓ ↺ Not scheduled

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)							
Pills (½ mg)	5	4	5	5	5	4	5
<b>Total mg</b>	<b>2.5</b>	<b>2</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2</b>	<b>2.5</b>

Dose: 2.36 d?   
 Dose decreased by 21%

Next: 05/02/2018 7 d ✓

**Accept dose** **New INR/Dose** Tested No Further Tests ☐

**Treatment Notes** ⓘ

- Dose changed by 21%
- INR changed by > 1.5
- Last 3 INRs are all rising
- Dose Change: 1 OUT OF 1
- HIGH INR: CHECK WITH P

The following sections illustrate how you might use this feature.

Recording an additional INR when a patient is tested twice on the same day

Changing an Already Authorised Dose but Retaining a Record of the Original

Recording a Second INR and Dose while Retaining the Original INR and Dose for a Day

#### 12.16.4 Recording an Additional INR when a Patient is Tested Twice on the Same Day

##### Example Scenario

You have an INR and perhaps a provisional dose for a patient, but before you accept and authorise the dose, the patient has an additional test and you receive a second INR. You want to dose the patient based on the second INR but you wish to retain a record of the first INR. If the second INR was received via an interface with the laboratory system, it will have been put on hold and will appear in the Hold Monitor. If you have received it via a written report, you need a way to enter it into DAWN without losing the first INR.

##### Solution

The current treatment record is in the "Tested" state, which means you have an INR and (possibly) a provisional dose that is yet to be accepted. The screen includes a *New INR/Dose* button.

**Dosing** | Contacts | Letters | Drugs | Events | Procedures | Reviews

INR: 1.9 **Low** ✓ Date: 06/12/2017 ✓ ↺

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)							
Pills (1 mg)	2	1½	1½	2	1½	1½	1½

Dose: 1.64 d ✓ No dose change Next: 20/12/2017 2 wk ✓

Accept dose | New INR/Dose Click on New INR/Dose | Tested | No Further Tests

Graph | History | Personal | Treatment plans | Questionnaires | Test Results

Date	INR	Dose	Dosing Instructions																								
Wed 06/12/2017	1.9	1.64 d	<table border="1"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pills (1 mg)</td> <td>2</td> <td>1½</td> <td>1½</td> <td>2</td> <td>1½</td> <td>1½</td> <td>1½</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)								Pills (1 mg)	2	1½	1½	2	1½	1½	1½
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																				
Pills (3 mg)																											
Pills (1 mg)	2	1½	1½	2	1½	1½	1½																				

#### 12.16.4. Preserve the INR only

A dialog box is displayed asking you whether you wish to retain the existing INR, existing dose or both as a historical record.

**Retain existing INR and/or dose as historical record?**

Press OK to enter an additional INR and/or dose for 06/12/2017. Please choose whether to retain the existing INR, existing dose or both as a historical record. (Historical records are not used in dose or time in range calculations).

- ☐ Preserve INR and Dose. I will enter a new INR and Dose for 06/12/2017 but wish to retain both the existing INR and dose as a historical record.
- ☒ Preserve INR only. I will enter a new INR and a dose based on that result. I only wish to retain the existing INR (but not the existing dose) as a historical record.
- ☐ Preserve Dose only. I will enter a new dose for the existing INR but I wish to preserve the existing dose as a historical record.

✓ OK ✗ Cancel Click Preserve INR only then click OK

In this case, the existing dose is a provisional suggestion which has not been accepted and authorised. As such, there may be no need to retain a record of it, but you do wish to retain the existing INR.

The system resets the current treatment record so that you can enter a new INR and dose, but it retains a record of the original INR, which appears against the same day in the Treatment history.

### 12.16.4. Enter and accept the INR

Any existing treatment notes are also copied and displayed beside the first INR. Although the treatment notes are not cleared when the record is reset, this behaviour means you can change (or delete and re-enter new) notes for the new INR without losing a record of what you had written originally.

Enter a new INR and press the *Accept INR* button (or reprocess the INR if it came down over the interface and is currently sitting in the Hold Monitor) . DAWN makes a provisional dose suggestion.

INR: 2.9 ★ ✓ Date: 30/01/2018

Enter the new INR

Click to accept the INR

Accept INR DNA Un-schedule Scheduled

Not scheduled [Schedule](#)

Treatment Notes ⓘ

Graph **History** Personal Treatment plans Questionnaires Test Results Interface

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA
Tue 30/01/2018	0.0	0.00 d			
	4.3				
Wed 03/01/2018	2.3	3.00 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) 1 1 1 1 1 1 1 <b>Total mg</b> 3 3 3 3 3 3 3	2 wk	

### 12.16.4. Accept the dose

Adjust the dose, next test and treatment notes as appropriate then press *Accept Dose*. The dose is accepted and authorised and the next test created. Both INR's appear in the treatment history for the current test date but the dose appears beside the latest INR. The older INR and notes appear in a more muted colour so that the later result and dose are more prominent.

[Dosing](#)
[Contacts](#)
[Letters](#)
[Drugs 1](#)
[Events](#)
[Procedures](#)
[Review](#)

INR: 2.9 In Range ✓ Date: 30/01/2018 ✓ Not scl

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Dose: 3.00 d ✓ No dose change Next: 27/02/2018 4 wk ✓

Click to accept the new INR and dose

Accept dose New INR/Dose Tested No Further Tests ☐

[Graph](#)
[History](#)
[Personal](#)
[Treatment plans](#)
[Questionnaires](#)
[Test Res](#)

Add history data

Date	INR	Dose	Dosing Instructions																																
Tue 30/01/2018	2.9	3.00 d	<table border="1"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg)</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (½ mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total mg</b></td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								<b>Total mg</b>	3	3	3	3	3	3	3
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																												
Pills (3 mg)	1	1	1	1	1	1	1																												
Pills (½ mg)																																			
<b>Total mg</b>	3	3	3	3	3	3	3																												
	4.3																																		
Wed 03/01/2018	2.3	3.00 d	<table border="1"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg)</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (½ mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total mg</b></td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								<b>Total mg</b>	3	3	3	3	3	3	3
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																												
Pills (3 mg)	1	1	1	1	1	1	1																												
Pills (½ mg)																																			
<b>Total mg</b>	3	3	3	3	3	3	3																												



HINT

Only the latest INR for any day is used in the Therapeutic Time in Range calculations and by the DAWN dosing engine in determining whether to suggest a dose change.

### 12.16.4. Authorised second INR and dose

Graph
History
Personal
Treatment plans
Questionnaires
Test Results
Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Com																				
Tue 27/02/2018	0.0	0.00 d																									
Tue 30/01/2018	2.9	3.00 d	<div>Warfarin</div> <table> <tr> <th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr> <tr> <td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr> <td colspan="7"> <div>Pills (3 mg)</div> <div>Pills (½ mg)</div> <div>Total mg</div> </td></tr> </table>	Sun	Mon	Tue	Wed	Thu	Fri	Sat	1	1	1	1	1	1	1	<div>Pills (3 mg)</div> <div>Pills (½ mg)</div> <div>Total mg</div>							4 wk		
Sun	Mon	Tue	Wed	Thu	Fri	Sat																					
1	1	1	1	1	1	1																					
<div>Pills (3 mg)</div> <div>Pills (½ mg)</div> <div>Total mg</div>																											
	4.3																										
Wed 03/01/2018	2.3	3.00 d	<div>Warfarin</div> <table> <tr> <th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr> <tr> <td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr> <td colspan="7"> <div>Pills (3 mg)</div> <div>Pills (½ mg)</div> <div>Total mg</div> </td></tr> </table>	Sun	Mon	Tue	Wed	Thu	Fri	Sat	1	1	1	1	1	1	1	<div>Pills (3 mg)</div> <div>Pills (½ mg)</div> <div>Total mg</div>							2 wk		
Sun	Mon	Tue	Wed	Thu	Fri	Sat																					
1	1	1	1	1	1	1																					
<div>Pills (3 mg)</div> <div>Pills (½ mg)</div> <div>Total mg</div>																											

### 12.16.5 Changing an Already Authorised Dose but Retaining a Record of the Original

#### Example Scenario

You have dosed a patient and increased their dose slightly as their INR was a little low. You authorised the dose, which triggered an update to your electronic patient record system. As their dose has changed you also ring the patient to explain the change. However, in the course of conversation the patient informs you that they forgot to take their tablets yesterday. As such, you advise them to continue on the same dose. You now need to change the dose recorded in DAWN. As this will result in a new update being sent to your electronic patient record system, you ideally want to retain a record of the original dose in DAWN so it is clear that this was set, but then superceded by the later dose.

#### Solution

As you have already authorised the dose, the dosing tab on the patient screen now shows the patient's scheduled next test record.



Dosing

Contacts

Letters

Drugs

Events

Procedures

Reviews

Reminders

Groups

Documents

INR:  ★ ✓

Date:  ✓ ↺

Wed 06/12/2017, 09:00 - 17:00: Doms Anticoagulant Clinic

Click to undo

Treatment Notes ⓘ

Accept INR

DNA

Un-schedule

Scheduled

Graph

History

Personal

Treatment plans

Questionnaires

Test Results

Interface Warnings

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments																												
Wed 06/12/2017	0.0	0.00 d																																	
Fri 17/11/2017	3.4	1.64 d	<div>Warfarin</div> <table><thead><tr><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr></thead><tbody><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> <div>Pills (3 mg) </div> <div>Pills (1 mg) </div> <div>2</div> <div>1½</div> <div>1½</div> <div>2</div> <div>1½</div> <div>1½</div> <div>1½</div>	Sun	Mon	Tue	Wed	Thu	Fri	Sat																						2 wk		<div><div></div><div></div></div>	
Sun	Mon	Tue	Wed	Thu	Fri	Sat																													
ⓘ Fri 22/09/2017	2.5	1.64 d	<div>Warfarin</div> <table><thead><tr><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr></thead><tbody><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> <div>Pills (3 mg) </div> <div>Pills (1 mg) </div> <div>2</div> <div>1½</div> <div>1½</div> <div>2</div> <div>1½</div> <div>1½</div> <div>1½</div>	Sun	Mon	Tue	Wed	Thu	Fri	Sat																						8 wk		<div><div></div><div></div></div>	
Sun	Mon	Tue	Wed	Thu	Fri	Sat																													

### 12.16.5. Undo the authorised dose

The next test is removed and the current INR and dose are made editable again. The dialog includes a New INR/Dose button.

**Dosing** | Contacts | Letters | Drugs **1** | Events | Procedures | Reviews | Reminders

INR: 2.9 In Range ✓ Date: 30/01/2018 ✓ ↻ Not scheduled

	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)		1	1	1	1	1	1	1
Pills (½ mg)								
Total mg		3	3	3	3	3	3	3

Dose: 3.00 d ✓ No dose change Next: 27/02/2018 4 wk ✓

Accept dose New INR/Dose Tested No Further Tests ☐

Click New INR/Dose

**Graph** | History | Personal | Treatment plans | Questionnaires | Test Results | Interface Warfarin

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range
Tue 30/01/2018	2.9	3.00 d	<b>Warfarin</b> Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) <b>Total mg</b> 3 3 3 3 3 3 3	4 wk		

### 12.16.5.4 Preserve the dose only

?

Retain existing INR and/or dose as historical record?

Press OK to enter an additional INR and/or dose for 30/01/2018. Please choose whether to retain the existing INR, existing dose or both as a historical record. (Historical records are not used in dose or time in range calculations).

☐

**Preserve INR and Dose.** I will enter a new INR and Dose for 30/01/2018 but wish to retain both the existing INR and dose as a historical record.

☐

**Preserve INR only.** I will enter a new INR and a dose based on that result. I only wish to retain the existing INR (but not the existing dose) as a historical record.

☒

**Preserve Dose only.** I will enter a new dose for the existing INR but I wish to preserve the existing dose as a historical record.

✓ OK

Click preserve Dose only and then click OK

✗ Cancel

## 12.16.5. Amend and Accept the dose

**Dosing** | Contacts | Letters | Drugs **1** | Events | Procedures | Reviews | Reminders | Groups

INR: 4.3 **High** 🚩 Date: 30/01/2018 ✓🔄 Tue 30/01/2018, 09:15 - 09:30: Dalton Squ

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Dose: 3.00 d✓ No dose change Next: 06/02/2018 7 d ✓

Accept the dose

Accept dose | New INR/Dose | Tested | No Further Tests ☐

• INR changed by > 1.5  
 • Last 3 INRs are all rising  
 • Dose Change: 1 OUT OF 1 ABOVE  
 • HIGH INR: CHECK WITH PATIENT

Treatment Notes ⓘ

Graph | **History** | Personal | Treatment plans | Questionnaires | Test Results | Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range
🚩 Tue 30/01/2018	4.3	3.00 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) <b>Total mg</b> 3 3 3 3 3 3 3	7 d		<div><div></div><div></div><div></div></div>
		2.36 d	Take 0 mg for 1 days, then: <b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) Pills (½ mg) 5 4 5 5 5 4 5 <b>Total mg</b> 2.5 2 2.5 2.5 2.5 2 2.5			

## 12.16.5. Authorised second dose

Graph | **History** | Personal | Treatment plans | Questionnaires | Test Results | Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Con
Tue 06/02/2018	0.0	0.00 d					
🚩 Tue 30/01/2018	4.3	3.00 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) <b>Total mg</b> 3 3 3 3 3 3 3	7 d		<div><div></div><div></div><div></div></div>	
		2.36 d	Take 0 mg for 1 days, then: <b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) Pills (½ mg) 5 4 5 5 5 4 5 <b>Total mg</b> 2.5 2 2.5 2.5 2.5 2 2.5				
🚩 Wed 03/01/2018	2.3	3.00 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) <b>Total mg</b> 3 3 3 3 3 3 3	2 wk		<div><div></div><div></div><div></div></div>	

## 12.16.6 Recording a Second INR and Dose while Retaining the Original INR and Dose for a Day

### Example Scenario

You reduced a patient's dose as their INR was slightly high. You have authorised the dose, which triggered an update to your electronic patient record system. Later in the day, the patient is retested and the new INR is in range. You want to enter the new INR into DAWN and set a new dose based on this result, but you do not want to lose the record of the original INR and dose.

### Solution

As you have already authorised the dose, the dosing tab on the patient screen now shows the patient's scheduled next test record.

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 06/12/2017	0.0	0.00 d					
Fri 17/11/2017	3.4	1.64 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 2 1½ 1½ 2 1½ 1½ 1½ Pills (1 mg) 2 1½ 1½ 2 1½ 1½ 1½	2 wk			
Fri 22/09/2017	2.5	1.64 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 2 1½ 1½ 2 1½ 1½ 1½ Pills (1 mg) 2 1½ 1½ 2 1½ 1½ 1½	8 wk			

1. You want to retain the existing INR and dose then enter a new INR and dose for current date.
2. Choose **Preserve INR and Dose** then press the **OK** button. The system resets the current treatment record so that you can enter a new INR and dose, but it retains a record of the original INR and dose (together with any treatment notes). These appear against the same day in the Treatment history.

Dosing
Contacts
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Events
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Groups
Documents

INR:  ★ ✓
Date:  ✓ ↺
Wed 06/12/2017, 09:00 - 17:00: Doms Anticoagulant Clinic [Reschedule](#)

Treatment Notes ⓘ

Accept INR
DNA
Un-schedule
Scheduled

Graph
History
Personal
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Test Results
Interface Warnings

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 06/12/2017	0.0	0.00 d	<div>Warfarin</div> <div> <div>Sun</div> <div>Mon</div> <div>Tue</div> <div>Wed</div> <div>Thu</div> <div>Fri</div> <div>Sat</div> </div> <div> Pills (3 mg)  Pills (1 mg)  </div>				
ⓘ Fri 22/09/2017	2.5	1.64 d	<div>Warfarin</div> <div> <div>Sun</div> <div>Mon</div> <div>Tue</div> <div>Wed</div> <div>Thu</div> <div>Fri</div> <div>Sat</div> </div> <div> Pills (3 mg)  Pills (1 mg)  </div>	8 wk		<div><div></div><div></div><div></div></div>	
ⓘ Fri 30/06/2017	1.6	1.64 d	<div>Warfarin</div> <div> <div>Sun</div> <div>Mon</div> <div>Tue</div> <div>Wed</div> <div>Thu</div> <div>Fri</div> <div>Sat</div> </div> <div> Pills (3 mg)  Pills (1 mg)  </div>	7 d		<div><div></div><div></div><div></div></div>	

Any existing treatment notes are also copied and displayed beside the first INR. Although the treatment notes are not cleared when the record is reset, this behaviour means you can change (or delete and re-enter new) notes for the new INR without losing a record of what you had written originally.

1. Enter a new INR and press the *Accept INR* button (or reprocess the INR if it came down over the interface and is currently sitting in the Hold Monitor) . DAWN makes a provisional dose suggestion, which you can adjust as appropriate without losing the record of what this was originally.

**Dosing**
Contacts Letters Drugs Events Procedures Reviews Reminders Groups

INR: 2.6 In Range ✓ Date: 06/12/2017 ✓ ↻ Wed 06/12/2017, 09:00 - 17:00: Doms Anticoagulation

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)							
Pills (1 mg)	2	1½	1½	2	1½	1½	1½

+/-  
K  
▲  
▼  
↺  
↻  
✎

Dose  d✓ No dose change Next  8 wk ✓

Tested

No Further Tests ☐

Graph
**History**
Personal
Treatment plans
Questionnaires
Test Results
Interface Warnings

Date	INR	Dose	Dosing Instructions	Time	DNA	In range																								
Wed 06/12/2017	2.6	1.64 d	<table border="1" style="width: 100%;"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg) </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pills (1 mg) </td> <td>2</td> <td>1½</td> <td>1½</td> <td>2</td> <td>1½</td> <td>1½</td> <td>1½</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)								Pills (1 mg)	2	1½	1½	2	1½	1½	1½	8 wk		<div style="width: 100%; height: 10px; background-color: green;"></div>
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																							
Pills (3 mg)																														
Pills (1 mg)	2	1½	1½	2	1½	1½	1½																							
	4.2	1.36 d	<table border="1" style="width: 100%;"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg) </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pills (1 mg) </td> <td>1½</td> <td>1</td> <td>1½</td> <td>1½</td> <td>1½</td> <td>1</td> <td>1½</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)								Pills (1 mg)	1½	1	1½	1½	1½	1	1½			
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																							
Pills (3 mg)																														
Pills (1 mg)	1½	1	1½	1½	1½	1	1½																							

2. Once you have amended the current dose as appropriate, press the *Accept dose* button to accept and authorise the new dose and create the next test record. Both INRs and doses still appear in the history for the current treatment record.



**Dosing** | Contacts | Letters | Drugs **1** | Events | Procedures | Reviews | Reminders

INR: 2.9 In Range ✓ Date: 30/01/2018 ✓ ↻ Not scheduled

	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)		1	1	1	1	1	1	1
Pills (½ mg)								
Total mg		3	3	3	3	3	3	3

Dose: 3.00 d ✓ No dose change Next: 27/02/2018 4 wk ✓

Accept dose New INR/Dose Tested No Further Tests ☐

Click New INR/Dose

**Graph** | History | Personal | Treatment plans | Questionnaires | Test Results | Interface War

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In ra
Tue 30/01/2018	2.9	3.00 d	<b>Warfarin</b> Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) <b>Total mg</b> 3 3 3 3 3 3 3	4 wk		

### 12.16.6. Preserve the INR and dose

Press the *New/INR Dose* button. A dialog box is displayed asking you whether you wish to retain the existing INR, existing dose or both as a historical record

Retain existing INR and/or dose as historical record?

Press OK to enter an additional INR and/or dose for 30/01/2018. Please choose whether to retain the existing INR, existing dose or both as a historical record. (Historical records are not used in dose or time in range calculations).

☒

**Preserve INR and Dose.** I will enter a new INR and Dose for 30/01/2018 but wish to retain both the existing INR and dose as a historical record.

☐

**Preserve INR only.** I will enter a new INR and a dose based on that result. I only wish to retain the existing INR (but not the existing dose) as a historical record.

☐

**Preserve Dose only.** I will enter a new dose for the existing INR but I wish to preserve the existing dose as a historical record.

✔ OK

Click preserve INR and Dose and then click OK

✕ Cancel

### 12.16.6. Enter, amend and accept the new INR and dose

The system resets the current treatment record so that you can enter a new INR and dose, but it retains a record of the original INR and dose (together with any treatment notes). These appear against the same day in the Treatment history.



[Dosing](#)
[Contacts](#)
[Letters](#)
[Drugs 1](#)
[Events](#)
[Procedures](#)
[Reviews](#)
[Reminders](#)

INR: 2.7 In Range ✓ Enter the new INR
 Date: 30/01/2018 ✓
 Tue 30/01/2018, 09:15 - 09:30: D

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Dose: 3.00 Accept the dose No dose change
 Next: 27/2/2018 4 wk

Accept dose New INR/Dose Tested No Further Tests ☐

• Last 3 INRs are all rising

Treatment Notes

---

[Graph](#)
[History](#)
[Personal](#)
[Treatment plans](#)
[Questionnaires](#)
[Test Results](#)
[Interface War](#)

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range
Tue 30/01/2018	2.7	3.00 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) <b>Total mg</b> 3 3 3 3 3 3 3	4 wk		
	4.2	2.43 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) Pills (½ mg) 5 5 5 4 5 5 5 <b>Total mg</b> 2.5 2.5 2.5 2 2.5 2.5 2.5			
Wed 03/01/2018	2.3	3.00 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) <b>Total mg</b> 3 3 3 3 3 3 3	2 wk		

Any existing treatment notes are also copied and displayed beside the first INR. Although the treatment notes are not cleared when the record is reset, this behaviour means you can change (or delete and re-enter new) notes for the new INR without losing a record of what you had written originally.

Enter a new INR and press the Accept INR button (or reprocess the INR if it came down over the interface and is currently sitting in the Hold Monitor) . DAWN makes a provisional dose suggestion, which you can adjust as appropriate without losing the record of what this was originally.

## 12.16.6. Authorised second INR and Dose

Graph

History

Personal

Treatment plans

Questionnaires

Test Results

Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Con																											
Tue 27/02/2018	0.0	0.00 d																																
Tue 30/01/2018	2.7	3.00 d	<div>Warfarin</div> <table> <tr> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> <tr> <td>Pills (3 mg)</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (½ mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total mg</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)	1	1	1	1	1	1	Pills (½ mg)							Total mg	3	3	3	3	3	3	4 wk		
Sun	Mon	Tue	Wed	Thu	Fri	Sat																												
Pills (3 mg)	1	1	1	1	1	1																												
Pills (½ mg)																																		
Total mg	3	3	3	3	3	3																												
	4.2	2.43 d	<div>Warfarin</div> <table> <tr> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> <tr> <td>Pills (3 mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pills (½ mg)</td> <td>5</td> <td>5</td> <td>5</td> <td>4</td> <td>5</td> <td>5</td> </tr> <tr> <td>Total mg</td> <td>2.5</td> <td>2.5</td> <td>2.5</td> <td>2</td> <td>2.5</td> <td>2.5</td> </tr> </table>	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)							Pills (½ mg)	5	5	5	4	5	5	Total mg	2.5	2.5	2.5	2	2.5	2.5			
Sun	Mon	Tue	Wed	Thu	Fri	Sat																												
Pills (3 mg)																																		
Pills (½ mg)	5	5	5	4	5	5																												
Total mg	2.5	2.5	2.5	2	2.5	2.5																												
Wed 03/01/2018	2.3	3.00 d	<div>Warfarin</div> <table> <tr> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> <tr> <td>Pills (3 mg)</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (½ mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total mg</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)	1	1	1	1	1	1	Pills (½ mg)							Total mg	3	3	3	3	3	3	2 wk		
Sun	Mon	Tue	Wed	Thu	Fri	Sat																												
Pills (3 mg)	1	1	1	1	1	1																												
Pills (½ mg)																																		
Total mg	3	3	3	3	3	3																												

## 12.17 Dosing a Patient Without an INR Result

In some situations you may wish to call the patient and advise them on what dose to take until they next have their blood tested. In many cases, you may simply suggest continuing on the same dose and having a blood test as soon as possible but the fact you have spoken to the patient and actively advised them to do this may be something you want to record as a dose record in DAWN. This could be even more important if the patient informs you their circumstances have changed - perhaps they have started taking a concurrent medication that interacts with warfarin - and you suggest a dose change to compensate.

In earlier versions of DAWN, dosing a patient without an INR was not possible. However, in version 7.9.53 onwards, you can enable this functionality by means of a system setting called *AllowZeroINR*. When you upgrade from an earlier version this system setting is switched off by default so that DAWN continues to work as it did before, but you now have the option to switch this feature on.

INR:  ★ ✓ Date: 25/12/2017 ✓

Accept INR DNA Un-schedule Scheduled

Graph History Personal Treatment plans Questionnaires Test Results

Date	INR	Dose	Dosing Instructions																
Mon 25/12/2017	0.0	0.00 d																	
Mon 18/12/2017	N/A	3.00 d	<table border="1"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>mg</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	mg	3	3	3	3	3	3	3
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat												
mg	3	3	3	3	3	3	3												
Wed 22/11/2017	1.7	3.00 d																	

**Automatic dose and next test date calculation is prevented in the following circumstances:**

- The number of weeks since the last INR exceeds the maximum test interval for the patient + 2 weeks
- The patient is on manual/bridging therapy
- The patient's last dose was a manual/bridging dose
- The patient's last dose contained LMWH
- The patient's last dose spanned less than seven days
- The patient's last dose may have been a booster or loading dose (see Preventing dose calculations based on inappropriate doses)

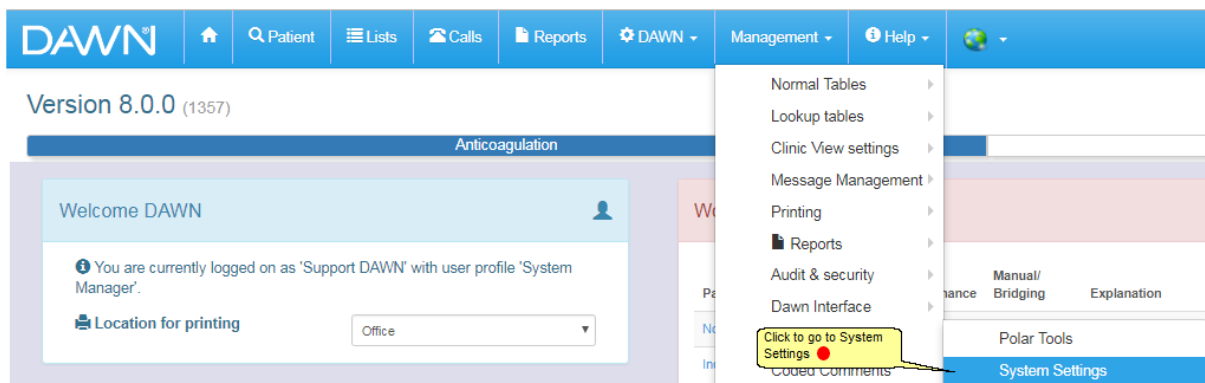
### 12.17.1 Switch On the Option to dose without an INR

The simplest way to handle a patient who fails to attend is to reschedule their test as a DNA (Did Not Attend). See Handling Non-Attendance for a Warfarin or Other Vitamin K Antagonist Patient for more details. This method allows you to easily reschedule the patient's test while keeping track of how many consecutive tests they have missed.

However, in some situations you may wish to call the patient and advise them on what dose to take until they next have their blood tested. In many cases, you may simply suggest continuing on the same dose and having a blood test as soon as possible but the fact you have spoken to the patient and actively advised them to do this may be something you want to record as a dose record in DAWN. This could be even more important if the patient informs you their

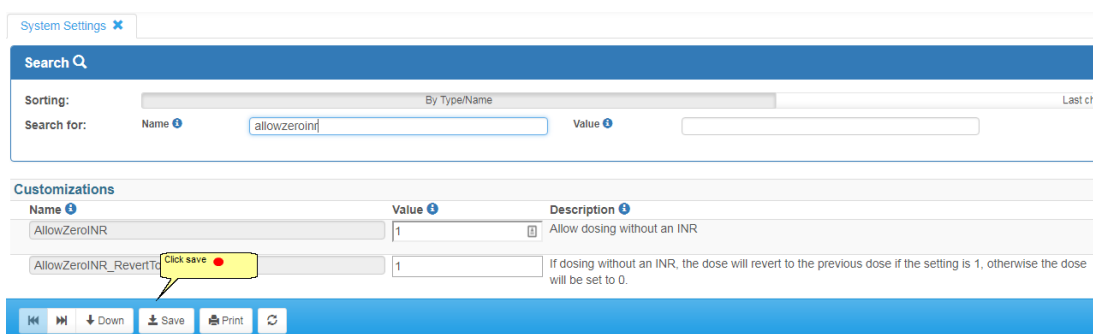
circumstances have changed - perhaps they have started taking a concurrent medication that interacts with warfarin - and you suggest a dose change to compensate.

In earlier versions of DAWN, dosing a patient without an INR was not possible. However, in version 7.9.53 onwards, you can enable this functionality by means of a system setting called *AllowZeroINR*. When you upgrade from an earlier version this system setting is switched off by default so that DAWN continues to work as it did before, but you now have the option to switch this feature on.



### 12.17.2 Changing the dose without an INR setting

Type *AllowZeroINR* in the search box and press the *Search* button.



Two system settings are displayed: *AllowZeroINR* and *AllowZeroINR\_RevertToPreviousDose*

Set the *AllowZeroINR* setting "1" to enable dosing a patient without an INR. Set it to "0" to disable this functionality

The second setting, *AllowZeroINR\_RevertToPreviousDose* determines whether the dose and next test date use default values or whether they are left blank. In the latter case, you must always enter a dose and next test date manually; in the former, the dose defaults to the same value as the last dose and the next test date defaults to 7 days' time - you can still change these if necessary.

Set the *AllowZeroINR\_RevertToPreviousDose* setting to "1" to default the dose and next test date when you dose a patient without an INR. Set it to "0" to force users to always enter the dose and next test date manually.

### 12.17.3 Dosing without an INR

The screenshot shows the 'Dosing' tab selected. The 'INR' field is empty, with a blue star icon and a checkmark to its right. The 'Date' field is set to '06/12/2017' with a calendar icon and a checkmark. A yellow callout bubble points to the 'INR' field with the text: 'Leaving the INR field blank, click on accept INR'. Below the fields are buttons for 'Accept INR' (blue), 'DNA' (grey), 'Un-schedule' (grey), and 'Scheduled' (blue). The status 'Scheduled' is also displayed in blue text. A 'Treatment Notes' section with an information icon is on the right.

### 12.17.4 Warning about not entering a INR



The screenshot shows a warning message box at the top: 'Warning: You have not entered an INR. Either enter an INR or click the red ? to dose the patient without an INR. To remove the red ? without dosing the patient, click the Cancel All Changes Button - the backwards looping arrow next to the chequered flag on the top menu.' Below the message is an 'OK' button. The background shows the 'Dosing' interface with the 'INR' field containing a red question mark. A yellow callout bubble points to the red question mark with the text: 'A red question mark is displayed against the INR. A message box is displayed warning you that "you have not entered an INR. Please click the red ? to continue dosing without an INR"'. The 'Accept INR' button is blue, and the 'DNA' and 'Un-schedule' buttons are grey. The status 'Scheduled' is displayed in blue text.

(Please note: if your Personal Settings are configured to suppress Treatment Warnings no message box is displayed but the same message is shown as a tool tip when you hover over the red question mark.)


### 12.17.5 Accept INR with previous dose suggested


If your *AcceptZeroINR\_RevertToPreviousDose* setting is switched on (1) then DAWN defaults the patient's dose to the same as their previous dose and defaults their next test date to 7 days' time.

Dosing   Contacts   Letters   Drugs **1**   Events   Procedures   Rev

INR:  Date: 18/12/2017 ✓ ↺  Mon

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3	3	3	3	3	3	3

Dose  d ✓ No dose change   Next   7 d ✓



Accept the dose 

Accept dose   New INR/Dose   Tested   No Further Tests ☐


### 12.17.6 Accept INR with no dose suggested


If your *AcceptZeroINR\_RevertToPreviousDose* setting is switched off (0) the dose defaults to zero and the next test date is blank. A red question mark is displayed against the zero dose and the *Accept Dose* button is coloured red to indicate you must enter a dose or click on the red question mark to confirm you wish to leave it as zero. You are also prevented from accepting the dose if you do not enter a next test date.

Dosing   Contacts   Letters   Drugs **1**   Events   Procedures   Rev

INR:  Date: 18/12/2017 ✓ ↺  Mon

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3	3	3	3	3	3	3

Dose  d ? (dose zero)   Next   7 d ✓

Accept the dose 

Accept dose   New INR/Dose   Tested   No Further Tests ☐

12.17.7 Dosed without an INR

Dosing

Contacts

Letters




Drugs1

Events

Procedures

Re

INR:  ★ ✓

Date: 25/12/2017   ✓ ↶  Mo

Accept INR

DNA

Un-schedule

Scheduled

Graph

History

Personal

Treatment plans

Questionnaires

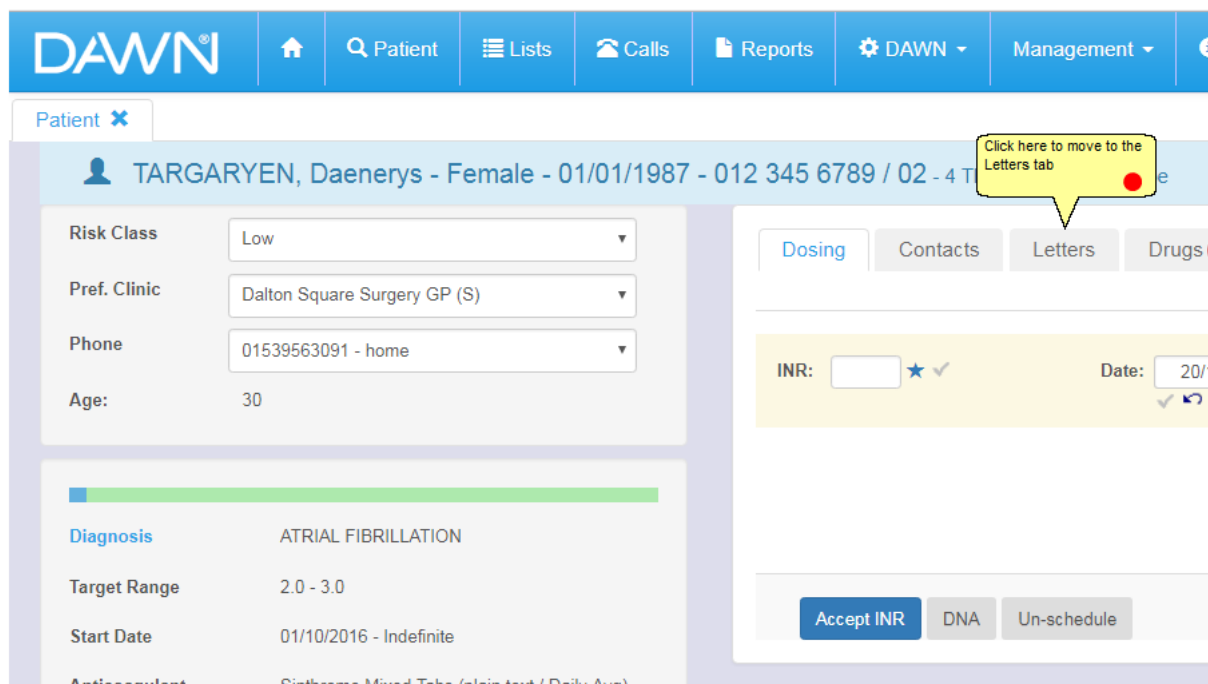
Test R

Date	INR	Dose	Dosing Instructions																
Mon 25/12/2017	0.0	0.00 d																	
⚠ Mon 18/12/2017	N/A	3.00 d	<table><thead><tr><th>Warfarin</th><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr></thead><tbody><tr><td></td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></tbody></table> mg	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat		3	3	3	3	3	3	3
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat												
	3	3	3	3	3	3	3												
Wed 22/11/2017	1.7	3.00 d																	

## 13 Producing Messages Manually From DAWN

Letters, emails and faxes can be sent directly from the DAWN system. To set messages up to be sent automatically from the system, please go to the Setting Up Printing - User Guide section of the manual.

To manually produce a letter, email or fax from DAWN AC, click on the Letters tab on the main patient screen:



The screenshot shows the DAWN patient interface. At the top is a blue navigation bar with the DAWN logo and tabs for Patient, Lists, Calls, Reports, DAWN (with a gear icon), and Management. Below this is a patient header for TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 T. A yellow callout bubble points to the 'Letters' tab with the text 'Click here to move to the Letters tab'. The 'Letters' tab is highlighted in blue. To the left of the 'Letters' tab are 'Dosing', 'Contacts', and 'Drugs' tabs. Below the tabs is a form with fields for Risk Class (Low), Pref. Clinic (Dalton Square Surgery GP (S)), Phone (01539563091 - home), and Age (30). Below this is a section for 'Diagnosis' with a green progress bar, showing 'ATRIAL FIBRILLATION', 'Target Range' (2.0 - 3.0), 'Start Date' (01/10/2016 - Indefinite), and 'Anticoagulant' (Sinthrome Mixed Tabs (plain text / Daily Ave)). At the bottom right are buttons for 'Accept INR', 'DNA', and 'Un-schedule'.



# 13.1 Letters tab

**DAWN** Patient Lists Calls Reports DAWN Management Help

Patient **TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 /**

Risk Class: Low  
 Pref. Clinic: Dalton Square Surgery GP (S)  
 Phone: 01539563091 - home  
 Age: 30

Diagnosis: ATRIAL FIBRILLATION  
 Target Range: 2.0 - 3.0  
 Start Date: 01/10/2016 - Indefinite  
 Anticoagulant: Sinthrome Mixed Tabs (plain text / Daily Avg)

Treatment Plan: 1 of 1 active  
 Risks: Patient is colour blind

Messages:

Description	Created
Dosing Instruction	29/11/2017 1
Dosing Instruction	29/11/2017 1
Dosing Instruction	29/11/2017 1
Dosing Instruction	29/11/2017 1
Dosing Instruction	29/11/2017 1
Dosing Instruction	29/11/2017 1
Dosing Instruction	29/11/2017 1

Televox: Send reminders ☐ Send dosing instruc  
 Bookprinter (Next label position):

**Callouts:**

- If a user clicks on the Letters tab after entering an INR but before authorising the dose and creating the next appointment, a warning message will appear above the available letters and custom messages.
- To print a letter manually from the DAWN system, click here to scroll down and choose a letter.
- This prints the letter to one of your local printers.
- If you would like to send a custom message, eg. send the patient to the phone list, send an email or fax to a physician, scroll down and click on the required custom message.
- If you would like to set up a custom message within DAWN AC, please contact our support team.

# 13.2 Letters Tab - Dose Not Authorised Message

Dosing Contacts **Letters** Drugs 1 Rem

**! You may be unable to create some letters and messages until the next appointment has been created**

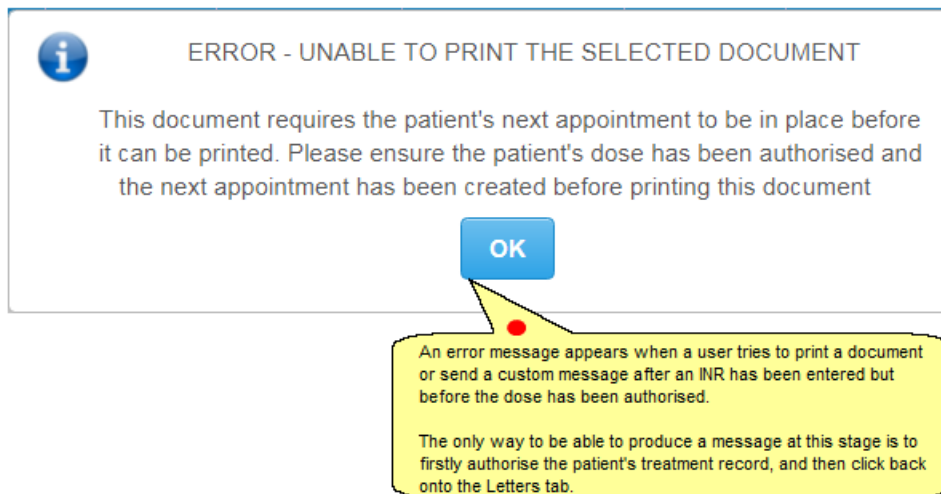
Messages:

Description	Created
Dosing Instruction	11/12/2017 13:59
Dosing Instruction	29/11/2017 17:11
Dosing Instruction	29/11/2017 17:11
Dosing Instruction	29/11/2017 17:00

**Callouts:**

- If a user clicks on the Letters tab when the patient's treatment record has not been authorised, e.g., they are in the middle of being dosed, then the following message is displayed, telling the user that a message containing dose and next test date information cannot be printed yet.
- Click here to see what happens when a user tries to print a letter or produce a message on this screen.

### 13.3 Pop Up Warning Message



## 14 Handling Non-Attendance for a Warfarin or Other Vitamin K Antagonist Patient

There are two ways of rescheduling patients within DAWN:

Mark the patient as a DNA in their main patient screen

OR

Bulk reschedule a batch of patients within a list view

### 14.1 Confirm DNA Selection

Dosing Contacts Letters Drugs Events Procedures Reviews Reminders

INR:  ★ ✓ Date: 22/11/2017 ✓ ↺

Please confirm the Recommended Next Appointment-date and press the DNA-button again.

Next 12/01/2018 7½ wk ✓

(Scheduling info not available)

Please note the new date is automatically advanced 7 days from the original date above or to tomorrow, if the date was more than 7 days ago. The number of days advanced is set within the System Keys.

Accept INR DNA Un-schedule Scheduled

Click on the 'DNA' button above to confirm the DNA.

## 14.2 Show the DNA Count

Dosing
Contacts
Letters
Drugs
Events
Procedures
Reviews
Reminders

INR:  ★ ✓
Date: 16/01/2018

Tue 16/01/2018, 09:00 - 09:15: Outre:

Treatment Notes ⓘ

Click again on 'DNA' button to confirm the DNA.

Accept INR DNA Un-schedule Scheduled

Graph History Personal Treatment plans Questionnaires

Add history data

	Date	INR	Dose	Dosing Instructions	Time	DNA	In range																																							
	Tue 16/01/2018	0.0	0.00 d		2																																									
ⓘ	Tue 17/10/2017	2.1	3.50 d	<b>Warfarin</b> <table> <tr> <th></th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> <tr> <td>Pills (1 mg) </td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> </tr> <tr> <td>Pills (3 mg) </td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (5 mg) </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total mg</b></td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> </tr> </table>		Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (1 mg)	½	½	½	½	½	½	½	Pills (3 mg)	1	1	1	1	1	1	1	Pills (5 mg)								<b>Total mg</b>	3½	3½	3½	3½	3½	3½	3½	12 wk	
	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																							
Pills (1 mg)	½	½	½	½	½	½	½																																							
Pills (3 mg)	1	1	1	1	1	1	1																																							
Pills (5 mg)																																														
<b>Total mg</b>	3½	3½	3½	3½	3½	3½	3½																																							
ⓘ	Tue 25/07/2017	2.4	3.50 d	<b>Warfarin</b> <table> <tr> <th></th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> <tr> <td>Pills (1 mg) </td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> <td>½</td> </tr> <tr> <td>Pills (3 mg) </td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (5 mg) </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total mg</b></td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> </tr> </table>		Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (1 mg)	½	½	½	½	½	½	½	Pills (3 mg)	1	1	1	1	1	1	1	Pills (5 mg)								<b>Total mg</b>	3½	3½	3½	3½	3½	3½	3½	12 wk	
	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																							
Pills (1 mg)	½	½	½	½	½	½	½																																							
Pills (3 mg)	1	1	1	1	1	1	1																																							
Pills (5 mg)																																														
<b>Total mg</b>	3½	3½	3½	3½	3½	3½	3½																																							

This is the DNA cumulative count. Note that after 3 DNAs the patient's treatment plan is set to 'Patient Not Attending' preventing further DNA appointments and forcing the operator to investigate the patient's absence.

Click here to view a patient marked as non-attending

### 14.2.1 Manually marking a patient as non-attending

**GREEN, Gemma - Female - 25/06/1935 - 8663828520 - 17 HASLEWOOD DRIVE, MIDDLESEX - BANK ROAD HEALTH CENTRE, Dr C Cronin**

TIR% **Above Average** VGR **Above Average** Max Diff 0.3

Risk Class: Low  
 Pref. Clinic: Outreach Nurse Clinic Barnet  
 Phone: 111-222-4444 - home  
 Age: 82

Diagnosis: ATRIAL FIBRILLATION  
 Target Range: 2.0 - 3.0  
 Start Date: 24/06/2006 - Indefinite  
 Anticoagulant: Warfarin 1, 3 and 5 strength tablets

Treatment Plan: < 1 > of 1 active **Report**

Risks

INR:  Date: 09/01/2018

Click here on DNA button to record a Non Attendance.

Accept INR DNA Un-schedule Scheduled

Graph History Personal Treatment plans Questionnaires Test Results

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA
Tue 09/01/2018	0.0	0.00 d			
Tue 17/10/2017	2.1	3.50 d	<b>Warfarin</b> Pills (1 mg) 1/2 1/2 1/2 1/2 1/2 1/2 Pills (3 mg) 1 1 1 1 1 1 Pills (5 mg) <b>Total mg</b> 3% 3% 3% 3% 3% 3%	12 wk	

## 14.3 Patient Non-Attending

Risk Class: **High**  
 Treatment Plan: **NonAttending**  
 Pref. Clinic: Doms Anticoagulant Clinic  
 Phone: 0114267675 - home  
 Age: 5

On the third DNA the patient's treatment plan is marked as non attending and no more DNAs or treatments can be performed until the patient's treatment plan is reactivated. The number of DNAs before a status change can be set within the system keys.

Diagnosis: ATRIAL FIBRILLATION  
 Target Range: 2.0 - 3.0  
 Start Date: 01/01/2012 - **Patient is not attending**  
 Anticoagulant: Warfarin 1, 3 and 5 strength tablets

Treatment Plan: < 1 > of 1 NonAttending **Report**

Risks: got cancer

INR:  Date: 11/01/2018

Click here to view how to bulk reschedule patients

Accept INR DNA Un-schedule Scheduled

Graph History Personal Treatment plans Questionnaires Test Results

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA
Thu 11/01/2018	0.0	0.00 d			3
Wed 27/09/2017	2.9	2.36 d	<b>Warfarin</b> Pills (1 mg) 2% 2 2% 2% 2% 2% Pills (3 mg) Pills (5 mg) <b>Total mg</b> 2% 2 2% 2% 2% 2%	8 wk	

This is the cumulative DNA count so far.

## 14.4 Using List Views To Reschedule Anticoagulation Patients

Please Note - Contact the support team before using this option as the system can be set up to print a DNA letter for each patient automatically when they are rescheduled.

**DAWN** | Patient | Lists | Calls | Reports | DAWN | Management | Information | Search

List View X

Worklist | Annual Review | Hold Monitor Listview | In reprocessing | Poor Performing Patient List | Reminders new | **Non attendance**

Post Clinic Check | Status | No Next Test Date | Procedures | Events | Risks | Dabigatran | Non-VKA | Treatment | Notes | P

**Filter Records**

With: Late

Dates: (Any date)

Clinic: >

Therapy: >

HC Professional/Team: >

Patient Group: >

Reschedule DNA's: v

Days to advance: 7

**Reschedule**

The list is currently filtered on 'late', but this can be changed, eg, '7 days late', etc

Ensure you select 'Any Date' when using the Non attendance list view

Priority - schedule manually before running bulk reschedule

Looking at the Non-Attendance list view, we can see a list of patients here who are late for an appointment

Firstly click in to each patient record in this top list and check whether you want them to be automatically rescheduled or DNA them manually.

First Priority Reason	Unit No	Name	Due	TIR	DNACount	Clinic
INR Trend	C38166	FARRINGTON, Katherine	09/01/2018	100%	0	Doms Anticoag
Risk Class: High	9090990909099	HAMILTON, Edward	09/01/2018	100%	0	Outreach Nurs

**Late - OK to bulk reschedule**

First Priority Reason	Unit No	Name	Due	TIR	DNACount	Clinic
	P91253	BUSBRIDGE, Julie	09/01/2018	100%	0	Doms Anticoag
	R22148	GAYNOR, George	09/01/2018	100%	0	Doms Anticoag
			09/01/2018	100%	0	Dalton Square
			09/01/2018	86%	0	Doms Anticoag
			09/01/2018	89%	0	Doms Anticoag

To reschedule all the patients in the right-hand list at once, click on the Reschedule button here. This will mark the patients as a DNA and move their next appointment on by a week (or however many days you specify in the 'days to advance' box).

Once the patients are rescheduled they will disappear from the list. Any patients remaining in the list cannot be rescheduled for some reason, eg, they are due to stop treatment.

Click to see which patients were not rescheduled



**Always ensure the date is set to 'Any Date' to avoid missing patients who are overdue their appointment.**

## 14.5 Checking that all non-attending patients have a scheduled next appointment

List View X

Worklist | Annual Review | Hold Monitor Listview

Status | No Next Test Date | Procedures | E

**Filter Records**

With: Late

> 6 weeks late

1 week late

2 weeks late

4 weeks late

Late

! Priority - reschedule manually

**! Test date advanced but no free slot in diary**

Late - OK to bulk reschedule

Persistent Non Attenders

Rescheduled Successfully Today

Rescheduled successfully any date

1 Previous DNA

2 Previous DNAs

3 or more previous DNAs

**Filter Date**

There are no records to display

Select this filter and if any patients appear on the list, schedule the appointments manually

## 15 Interfaces

Outbound Interfaces

Inbound Interfaces

### 15.1 Outbound Interfaces

If you have an outbound interface from DAWN to another system such as sending a patient treatment summary then it is important to check that the DAWN outbound interface is running. The status of the outbound interface is visible on the DAWN front screen. The status of the outbound interface should be checked at least 3 times a day. Once in the morning, once in the afternoon and once at the end of the working day.

If the outbound interface is working correctly then the status “Running” will be shown on the front screen in DAWN.

Outbound Interface ✕

Messages	
Pending:	0
Awaiting Acknowledgement	0
Delivered Today:	0
Undeliverable	0

Refresh

Last Error Message ✓

No error to report

Interval 30 seconds

Acknowledgement folder

Undeliverables folder

Active server (IdentiKey) B976.C3DC.51CB.9D19.B4F1.9787.4978.0C73 (This server is already active)

Run Interface in Application (Virtual Dir) dawnac

Logged in Application (Virtual Dir) You are currently logged in to the Application running in dawnac

The outbound interface is also running in this application (virtual dir)

Stop ■

If the outbound interface has stopped running then the status “Stopped” will be shown on the

Messaging <span style="float: right;">⚠</span>						
Messages	Interface	Email	SMS	Fax	Mail	Total
Waiting to be sent	5	0	0	0	0	5
Failed to be sent	0	0	0	0	0	0

There are 5 messages waiting to be sent

**Outbound Interface Status**

**Stopped**

front screen in DAWN.

### 15.1.1 Starting the Outbound Interface

To start the outbound interface you will need the correct permissions in DAWN. The DAWN system lead should have the permissions to start the outbound interface and the 4S DAWN Support Team can also do this for you.

The screenshot shows the DAWN system interface. The top navigation bar includes 'DAWN', a home icon, 'Patient', 'Lists', 'Calls', 'Reports', 'DAWN', 'Management', 'Help', and a globe icon. Below the navigation bar, the version 'Version 8.0.0 (1357)' is displayed. The main content area is divided into sections: 'Anticoagulation', 'Welcome DAWN' (with a user profile 'Support DAWN'), 'Location for printing' (set to 'Office'), and 'Conditions of Use'. A 'Worklist' section on the right shows 'Patients with', 'No INR Today', 'Incomplete Visits', and 'Missed Test' (2). The 'Management' menu is open, showing options like 'Normal Tables', 'Lookup tables', 'Clinic View settings', 'Message Management', 'Printing', 'Reports', 'Audit & security', 'Dawn Interface', and 'Outbound Interface' (highlighted). A yellow callout bubble points to 'Outbound Interface' with the text 'Click to select the outbound interface'.

Once the menu structure is open (as in the example above), click on the OutboundInterface option.



### 15.1.2 Outbound Interface Screen

The screenshot shows the 'Outbound Interface' screen with three main sections: Messages, Last Error Message, and Failure Notification.

**Messages:**

Message Type	Count
Pending:	5
Awaiting Acknowledgement	0
Delivered Today:	0
Undeliverable	0

**Last Error Message:** No error to report.

**Failure Notification:** Send notification of failure emails to: Dalton Square Surgery - Nicol Brenda, 11 SHEEN COURT - McGroarty Feargal, (None selected).

**Configuration:**

- Interval: 30 seconds
- Acknowledgement folder: (empty)
- Undeliverables folder: (empty)
- Active server (IdentiKey): B976.C3DC.51CB.9D19.B4F1.9787.4978.0C73 (This server is already active)
- Run Interface in Application (Virtual Dir): dawnac
- Logged in Application (Virtual Dir): You are currently logged in to the Application running in DawnAppPool\_1

**Start Button:** A red 'Start' button is visible. A yellow callout box points to it with the text: 'To start the outbound interface, click on the Start button'.

**Informational Note:** A yellow callout box states: 'If an email server has been configured in DAWN then email notifications can be set up to send a notification that the outbound interface has stopped running. This email can be sent to up to 3 people. If you would like more information on this feature or some help setting it up then please call the 45 DAWN Support Team on 015395 63091'.

Now return to the DAWN front screen and you should see that the Pending Messages to be sent by the interface have reduced (and will keep reducing until the count is 0) and the status is now "Running".

### 15.1.3 Outbound Interface Running

The screenshot shows the 'Outbound Interface' screen with three main sections: Messages, Last Error Message, and Failure Notification.

**Messages:**

Message Type	Count
Pending:	0
Awaiting Acknowledgement	0
Delivered Today:	0
Undeliverable	0

**Last Error Message:** No error to report.

**Configuration:**

- Interval: 30 seconds
- Acknowledgement folder: (empty)
- Undeliverables folder: (empty)
- Active server (IdentiKey): B976.C3DC.51CB.9D19.B4F1.9787.4978.0C73 (This server is already active)
- Run Interface in Application (Virtual Dir): dawnac
- Logged in Application (Virtual Dir): You are currently logged in to the Application running in dawnac

**Stop Button:** A green 'Stop' button is visible.

### 15.1.4 Generating an outbound message

DAWN is able to convert messages and output them to a location on the DAWN server.

Two file types that DAWN is able to output to are:


- Flat files
- PDF files

Please contact the 4S DAWN support team for help with this feature.

## 15.2 Inbound Interfaces

If you have inbound interfaces running, it is vital to check for messages which have gone on hold.

There is a tally on the front screen for this.

Inbound Interface 	
Status	Count
On Hold	23
Total Queued	23

### 15.2.1 Viewing Unmatched Interface Results

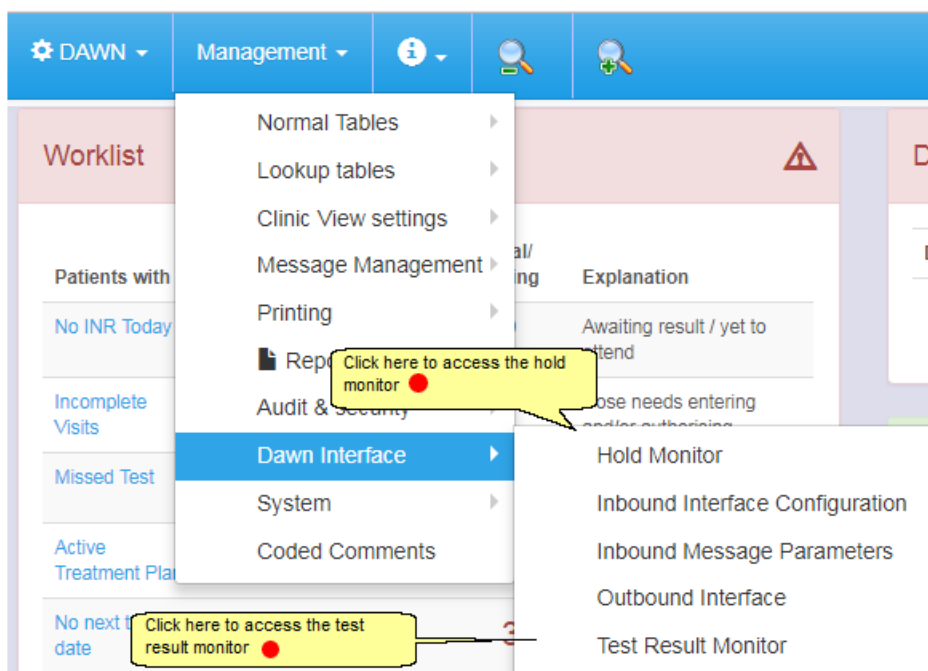
Your DAWN system may be linked to one or several other systems using interfaces.

You can view two types of unmatched interface results within DAWN:

- The Hold Monitor displays messages that the interface has been unable to fully process.
- The Test Result monitor displays test results processed by the chronic disease monitoring test result interface but which could not update the patient's latest appointment.

The number of interface messages that have not been loaded into DAWN are shown on the front-screen and there is a link to access them.

You can also access the Hold Monitor and Test Results Monitor via the Management Menu:



### 15.2.1.1 Hold Monitor Guide

The Hold Monitor displays messages that the DAWN interface has been unable to fully process. Depending upon the types of interface you have configured, this may include patient demographics messages, admission and discharge messages, INR result messages and other Test result messages.



You must have a procedure in place to ensure the Hold Monitor is checked on a regular basis. Please refer to the DAWN Clinical Framework Interface Safety Checklist to ensure you have incorporated all the recommendations for the DAWN interface into your procedures. A copy of the Interface Safety Checklist will have been provided as part of your interface configuration and is also available on request by contacting 4S Support.

Hold Monitor

Use these tabs to define the order of messages in the list

Sorting: Oldest first | Newest first | By UnitNo | Last Name | By Message Type | By Hold Reason

Search for: Disease area [ ] HoldReason [ ] LastName [ ] [Search]

Click here to mark ready for deletion

Click here to go to the patient record

Enter search criteria and click search for particular messages

Patient	Message Type	Inserted Date	Last Name	First Name	Unit No	National No	Hold Reason	DoB	Result Datetime	Result Numeric	Result Notes	Result Status	Appointment Datetime	DATE of TEST	Prior Hospital No	Acti
WIL	ORU*RI	19/01/2	WILL	Lisa	C72		Existing result for same day	19/	201801	1.5		F		2011		
WIL	ORU*RI	19/01/2	WILL	Julia	H58		Current treatment plan has status of suspended	02/	201801	1.9		F		2011		
CAI	ORU*RI	19/01/2	CAME	Liam	W13		Existing result for same day	22/	201801	2.6		F		2011		
WIL	ORU*RI	19/01/2	WILL	Julia	H58		Current treatment plan has status of Admitted	02/	201801	1.9		F		2011		

Click here to see the full message details

Click here to re-process the message

1-4/4

### 15.2.1.2 Return to hold monitor

Patient: WILLIAMS Lisa (19/03/1970) # C72597 / 5688971605

02 - 38 CLAYWOOD DRIVE, LEEDS - Riverside, Dr G Grey

Dosing | Contacts | Letters | Drugs 1 | Events | Procedures | Reviews | Reminders | Groups | Docu

INR: 2.3 In Range ✓ Date: 19/01/2018 ✓

Fri 19/01/2018, 08:00 - 08:15: Outreach Nurse Clinic Barn

No warnings

Treatment Notes

Dose 1.57 d ✓ No dose change Next 13/04/2018 12 wk ✓

Accept dose New INR/Dose Tested No Further Tests

Click here to return to hold monitor

Personal | Treatment plans | Questionnaires | Test Results | Interface Warnings 1

1 - 1 / 1

ResultDatetime	ResultSample	ResultTestName	ResultNumeric	ResultCharacter	HoldReason
201801190930	18C72597	INR	1.5	1.5	Existing result for same day

### 15.2.1.3 Searching For & Displaying Records

Located at the top of the Hold Monitor screen is a panel to allow the user to search for and display specific records in the Hold Monitor:

Records can be searched and displayed by the following criteria:

1. Disease area – Where you are using DAWN to monitor more than one disease area (e.g. Anticoagulation and Growth Factors or Rheumatology and Dermatology), the user is able to search for messages for a specific disease area.
2. Hold Reason – This enables the user to search for and display messages sent to the Hold Monitor for a specific reason. This proves useful if you wish to view and resolve messages of a specific reason.
3. Last Name – This enables the user to search for messages for a specific patient based on their last name.
4. Unit Number – This enables the user to search for messages for a specific patient based on their Hospital/Medical Record number.

The panel also allows for the displayed records to be sorted by newest first, oldest first, unit number, last name, message type or hold reason.

For example, the following screenshot shows those Hold Monitor messages that contain the expression 'Existing result' in the hold reason. The messages are sorted by patient last name.

The screenshot shows the 'Hold Monitor' interface. At the top, there is a 'Search' bar with a magnifying glass icon. Below it, the 'Sorting' section has four tabs: 'Oldest first' (selected), 'Newest first', 'ByUnitNo', and 'Last Name'. The 'Search for:' section includes a 'Disease area' dropdown menu, a 'UnitNo' text input field, and a 'HoldReason' text input field containing 'Existing result'. Below the search filters, there is a table of messages.



Patient	Message Type	Inserted Date	Last Name	First Name	Unit No	National No	Hold Reason	DoB	Res Dat
WIL	ORU^RI	19/01/2	WILLI	Lisa	C72		Existing result for same day	19/	20
CAI	ORU^RI	19/01/2	CAMI	Liam	W13		Existing result for same day	22/	20

#### 15.2.1.4 Reviewing the Messages








Each message on the Hold Monitor should be reviewed by a competent DAWN user before deciding on the appropriate course of action for the message.

The Hold Monitor gives the user the option of either deleting or re-processing messages. Messages should only be deleted if the user is sure that the information contained within the message is already against the patient in DAWN or there is no further action required. Where appropriate, the message can also be re-processed following action by the user to resolve the original problem. These actions can be performed on a message by message basis or as a part of a group of messages.

**Hold Monitor** ✕

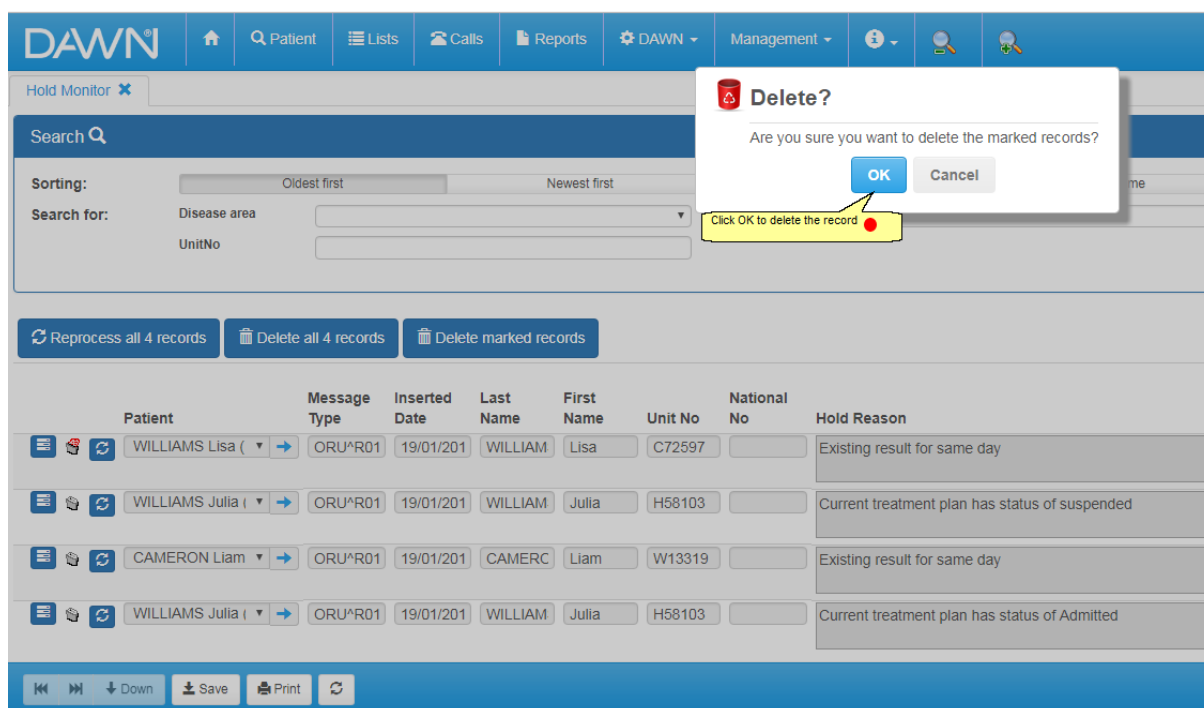
Patient	WILLIAMS Lisa (19/03/1970) # C72597 / 5688971605
Message Type	ORU^R01
Inserted Date	19/01/2018 11:49
Last Name	WILLIAMS
First Name	Lisa
Unit No	C72597
National No	
Hold Reason	Existing result for same day
PAS Id	
PostCode	
DoB	19/03/1970
Result Datetime	201801190930
Sample ID	18C72597
TestName	INR
Result Numeric	1.5
Result Character	1.5
Result Notes	
Result Status	F
Appointment Datetime	
DATE of TEST	201801190930
Prior Hospital No	
Active	
Reprocess	

Click List to return to the hold monitor

Navigation:       

### 15.2.1.5 Deleting Messages From The Hold Monitor

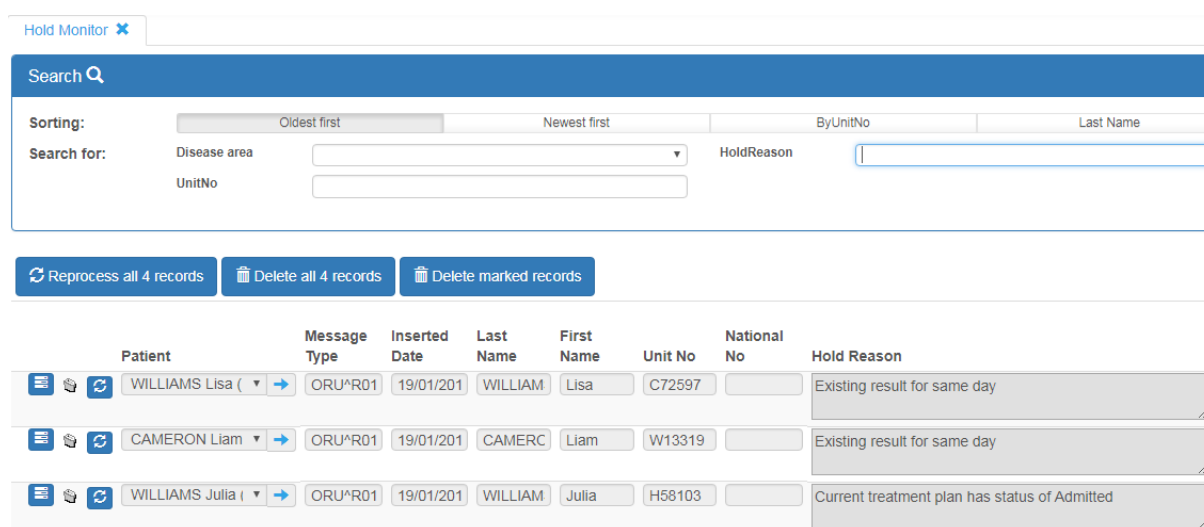
Having reviewed the Hold Monitor messages, it may be that no further action is necessary and the messages can simply be deleted from the Hold Monitor. To delete individual messages or a selection of messages, click on the trash can next to the message(s) to be deleted and then click on the 'Delete marked records' button. Click 'OK' to the confirmation message to continue and delete the messages or 'Cancel' to return to the Hold Monitor without deleting the messages:



To delete all messages shown in the list, click on the 'Delete all records' button and then click 'OK' to the confirmation message to continue and delete the messages or 'Cancel' to return to the Hold Monitor without deleting the messages:

### 15.2.1.6 Re-processing Messages From The Hold Monitor

Where corrective action has been taken within DAWN to resolve the reason for a message being sent to the Hold Monitor, the user may decide to re-process the message from the Hold Monitor. To re-process individual messages from the Hold Monitor, click on the re-process icon next to the message:



Where corrective action has been taken within DAWN to resolve each of the displayed messages, the user has the option to reprocess all of these messages from the Hold Monitor as a batch. To achieve this, click on the 'Reprocess all' button located above the list of messages:

On clicking either the icon to re-process an individual message or the 'Reprocess all' button, the relevant message(s) will disappear from the list.



**NOTE:** Although the message will disappear from the Hold Monitor when the re-process icon is clicked, it will not actually be re-processed until another message is received over the interface. The re-process icon simply flags it to be re-processed the next time the interface is processing a new message.

### 15.2.1.7 Reasons for messages going on hold

The main reasons that a message may be put on hold include:

- Invalid data in the message, for example a zero INR or an invalid appointment date
- No matching patient within DAWN
- More than one matching patient within DAWN
- The patient does not have an active treatment plan

If you have an Anticoagulation INR-only interface, additional reasons that a message may be put on hold include:

- The result sample date is not in the recent past, for example it is more than 14 days before today. (The exact number of days is configurable within DAWN)
- Different result sent for same day for same patient
- Patient has a more recent result already
- Patient has a previous test that has not yet been authorised
- The result date is before the treatment plan start date

If you have a chronic disease monitoring test result interface, additional reasons that a message may be put on hold include:

- Result date is more than N days in the past (where N is the Sample Date Warning Threshold for the relevant Test definition in DAWN)
- Unrecognised test name
- Result date is in the future

If you have a Demographic Next Appointment interface, additional reasons that a message may be put on hold include:

- The appointment date is too far in the past or future
- The patient has an existing appointment with a status of 'Tested' or 'DoseSet' and so their next appointment cannot be set
- The patient is deceased
- The diagnosis does not exist in DAWN
- An attempt was made to update a doctor that belongs to a different organisation
- Multiple matches were found when identifying a doctor



- The Health Authority has not been set when adding a new organisation

If you have an ADT interface, additional reasons that a message may be put on hold include:

- The patient is deceased
- The patient has a Stopped treatment plan (the interface is configured to place ADT messages on hold in this situation)
- The patient's treatment plan has a status that is incompatible with the ADT message (for example, an admission message is received for a patient who is already flagged as admitted)
- An invalid admission / discharge date/time has been supplied

### 15.2.1.8 Test Result Monitor Screen

The screenshot shows the Test Result Monitor interface. At the top is a search bar with a 'Search' button. Below it are filter tabs: 'Reprocess all 6 records', 'Delete all 6 records', and 'Delete marked records'. The main table displays test results with columns for Message Type, Inserted Date, Last Name, First Name, Title, Sex, DoB, Unit No, National No, Prior Unit No, Hold Reason, Sample ID, TestName, Result Numeric, Result Character, Result Status, Result Datetime, and Patient. Several rows are visible, each with a 'Reprocess' button. Callouts provide additional context: 'You can search for a particular test result record here' points to the search bar; 'The time that the result was received or the test was taken is displayed here' points to the 'Result Datetime' column; and 'Clicking on the Reprocess button will re-import the result. This can be chosen if the reason that the result has not imported has now been resolved.' points to the 'Reprocess' button.

The main reasons that a test result may be put on the Test Result monitor include:

- The patient has a Closed(Unlock) visit
- A software problem has occurred

### 15.2.2 Interface Sending System

Depending on the types of interface you have configured, you will have one or more front screen tallies that will highlight if there is an issue with your interface that has originated from your sending IT system e.g. laboratory, PAS system rather than the DAWN system.

The front screen tally will show the date and time of the last message received by DAWN. If the date and time is older than you expect, this may indicate an issue between your sending system and DAWN. Please contact your IT department who will be able to investigate any issues with your sending systems.

## 16 Setting Up Printing - User Guide

If you wish to print from DAWN manually from a patient record, no setting up is required. DAWN will simply use your internet explorer page settings. You may wish to remove the header/footer and margins as required.

DAWN AC allows you to automate the generation of messages in response to certain events such as authorising a dose, scheduling a test or rescheduling a non attender. For example, you might configure DAWN AC to print a dosing instruction automatically when you accept a patient's dose.

Depending on certain settings and preferences, each message can be sent to a printer, faxed, emailed or forwarded to the Message Center for telephoning.

To enable automatic and bulk messaging, you must create a Print Station in DAWN AC and associate this Print Station with your organisation and specific locations within your organisation. When each user logs in, any messages that are triggered in response to things they do (doses they accept, non attenders they reschedule) are handled by their organisation's Print Station.

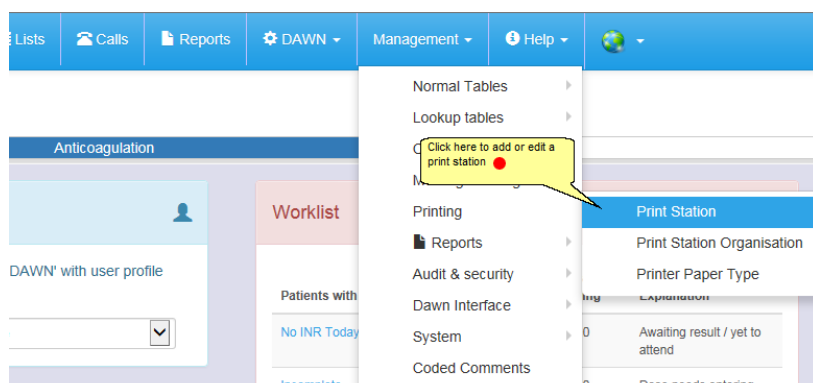
These messages are printed, faxed or emailed by a separate application called DAWNMailer, which connects to a specific Print Station and sends out all the pending messages to the right location.

Drivers for all printers at each location should be installed on the server. Should you have identical printers at different locations, the drivers would need renaming to reflect this.

### **Steps needed to be set up for Automatic Messaging:**

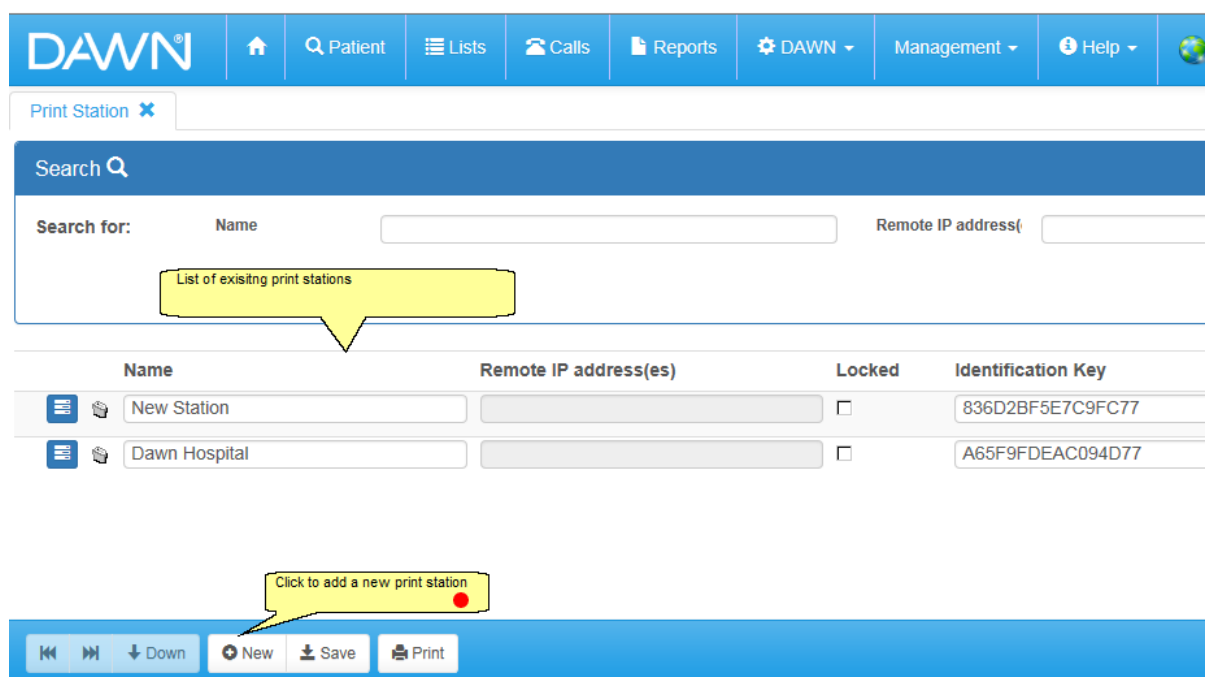
1. Setting up a print station
2. Setting up DAWNMailer to process messages for a print station
3. Setting up a new paper type
4. Mapping printers with PrinterPaperType
5. Setting up a new printing location
6. Selecting paper type in message template
7. Selecting paper type in message event

### **16.1 Adding/Editing a Print Station**



The PrintStation handles all Event Messages triggered by users belonging to any of its supported organisations. However, if no DAWNMailer is running, the messages remain queued inside the print station. You need to set up the DAWNMailer to send out the messages.

### 16.1.1 List of print stations



### 16.1.2 New print station form

**DAWN**

Print Station ✕

**Name**

**Remote IP address(es)**

**Locked** ☐

**Identification Key**  [Create random key](#)

**Notes**

**Return Email**

You will need to save this new record before you can add related records

OK Cancel

### 16.1.3 Print station with unique key

**DAWN** Home Patient Lists Calls Reports DAWN Management Help

Print Station ✕

**Name**

**Remote IP address(es)**

**Locked** ☐

**Identification Key**  [Create random key](#)

**Notes**

**Return Email**  [Add supported organisations](#)

**Printers** [Add a new record](#) [Printers](#)

There are no items to display

Leave blank. This list is automatically populated by DAWNmaker

[Add a new record](#) [Supported organisations](#)

There are no items to display

New Delete Save List Print

### 16.1.4 Choose which organisations can use this print station

DAWN®

Home Patient Lists Calls Reports DAWN Management Help

Print Station X Print Station Organisation X

Please select a Organisation for the table Print Station Organisation

You can select more than one item

☐ Alegent Health

☐ The Hospital

☐ ST JOHNS MEDICAL CENTRE

☐ St James Hospital

☐ 11 SHEEN COURT

☐ 18 DEBADALE HOUSE

☐ Dethick Court Practice

☐ 98 D GROVE

Click OK

OK Cancel

Select the organisations to use this print station

## 16.2 Setting Up DawnMailer to Process Messages for a Print Station

DAWNMailer is installed in the Polar Studio/Webroot folder on the DAWN AC server. It can be run on the server itself or it can be copied to another machine (perhaps a dedicated PC in the anticoagulation department) and run there instead.

If you intend to fax messages, DAWNMailer must reside on a computer that has a modem attached to a phone line. You must also install Microsoft Fax. Microsoft Fax is part of the Windows operating system.

To set up DAWNMailer

1. Create a DAWNMailer folder on the PC where you intend to run DAWNMailer.
2. Copy the DAWNMailer.exe and HTMLPrinter.exe (if present) files from the Polar Studio/Webroot folder to your new DAWNMailer folder.
3. Double click DAWNMailer to open the application. DAWNMailer attempts to start automatically. At this point you may receive an error message as DAWNMailer is not correctly configured yet.
4. Click OK to close the error message. The DAWNMailer dialog is displayed in Stopped mode. Fill in the fields as follows:

Enter the http address for Dawn AC e.g.  
<http://DawnServer/DawnAC>  
 (where DawnServer is the name of your server – do not include the index.html or polarserver.asp page name)

If you want DawnMailer to send emails enter the address of your SMTP server

Open your Print Station in Dawn AC, highlight the Identification Key and press Ctrl + C to copy it. Click into this field and press Ctrl + V to paste in the key.

This configures this copy of DawnMailer to process messages for this Print Station.

If you share Dawn AC with other organisations, each organisation can have its own print station and DawnMailer.

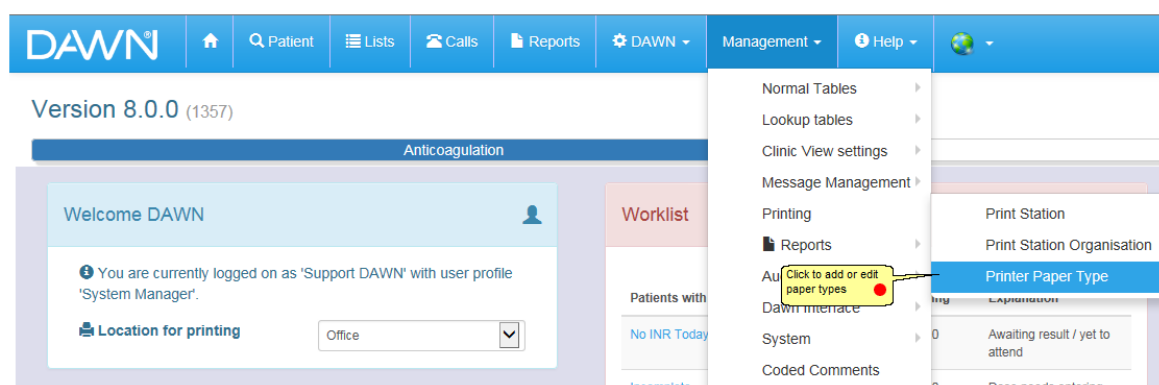
Select the printer you want to use by default. You can configure Dawn AC to print use different printers for different messages and different locations. This is covered in a separate factsheet.

When all the settings have been entered, click to start Dawn Mailer

Error: -2146897210, The system cannot locate the object specified.

5. Press the Test Mail, Test Email and Test Fax buttons to print, email and fax a test message to ensure DAWNMailer can print, email and fax successfully.
6. Press the Start button to start DAWNMailer. DAWNMailer starts processing any messages for its corresponding print station.

## 16.3 Adding/Editing Paper Types



Click on the OK button at the bottom of the form to save the paper type and be taken back to the list of paper types.

16.3.1 List of paper types

DAWN®

Home

Search Patient

Lists

Calls

Reports

DAWN

Management

Help

Printer Paper Type

	Name
	A4 Blank
	A4 Colour
	A4 Plain
	Economailer1
	Template2

Name

Order Nr

In Use

A4 Blank

0

☒

There are no items to display

Add new paper type

Navigation icons

New

Delete

Save

List

Print

### 16.3.2 New paper type form

DAWN®

Printer Paper Type ✕

Name

Order Nr

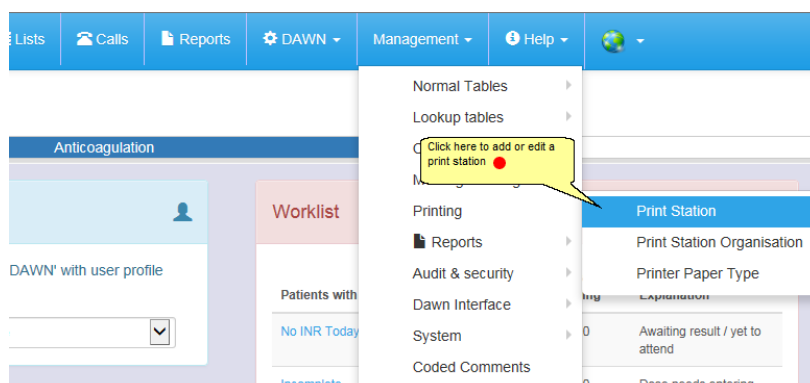
In Use ☒

You will need to save this new record before you can add related records

Click OK to save the paper type

✓ OK ✕ Cancel

### 16.4 Mapping Printers to Locations and PaperType





### 16.4.1 Select a print station

Print Station ✕

Search

Search for: Name  Remote IP address(es)

Choose a print station

Name	Remote IP address(es)	Locked	Identification Key	
New Station	<input type="text"/>	<input type="checkbox"/>	836D2BF5E7C9FC77	Create random key
Dawn Hospital	<input type="text"/>	<input type="checkbox"/>	A65F9FDEAC094D77	Create random key
New	<input type="text"/>	<input type="checkbox"/>	C44E5F2677211AD	Create random key

### 16.4.2 List of printers

Print Station ✕

Name

Remote IP address(es)

Locked ☐

Identification Key  [Create random key](#)

Notes

Return Email

[Add a new record](#) [Supported organisations](#)

Organisation	Return Email
Dawn Hospital	
Dalton Square Surgery	

[Add a new record](#) [Printers](#)

Name

HP Officejet 6000 E609a Series
\\MM-DC-01\HP
\\MM-DC-01\HP Officejet 6000 E609a Series
\\MM-DC-01\Brother MFC-9460CDN Printer
\\mm-dc-01\Epson WF-5620 Series(Network)

### 16.4.3 Map the printer to locations and paper types

**DAWN** | Home | Patient | Lists | Calls | Reports

Print Station ✕ | Printer ✕

Name	Device Name	Notes
\\MM-DC-01\HP Universal Printing PCL 5	\\MM-DC-01\HP Universal Prin	
\\MM-DC-01\HP Officejet 6000 E609a Series	\\MM-DC-01\HP Officejet 6000	
\\MM-DC-01\Brother MFC-9460CDN Printer	\\MM-DC-01\Brother MFC-946	
\\mm-dc-01\Epson WF-5620 Series(Network)	\\mm-dc-01\Epson WF-5620 S	

**Name** | \\MM-DC-01\Brother MFC-9460CDN Printer

**Device Name** | \\MM-DC-01\Brother MFC-9460CDN Printer

**Notes**

**Paper Type** | (None selected)

**Order Nr** | 10

**In Use** | ☒

**PrinterLocation**

There are no items to display

**Buttons:** Add a new record, New, Delete, Save, List, Print

**Callouts:**

- Click here to add a new location (points to 'Add a new record')
- Select a paper type (points to 'Paper Type')
- Set the order of this printer (points to 'Order Nr')
- Click to save the record (points to 'New')

### 16.5 Adding/Editing Printing Locations

**DAWN** | Home | Patient | Lists | Calls | Reports | DAWN | Management | Help | Globe

Version 8.0.0 (1357)

**Management Menu:**

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
  - Click to find the organisation (points to 'Organisation')
- Audit & security

**Other Options:** Clinic, Clinic-diary, General Lookup Category, HCProfessional, Health Authority, LoginLog, Organisation

**Main Content:** Welcome DAWN, Worklist, Patients

### 16.5.1 Search for the organisation

The screenshot shows the DAWN search interface. At the top is a navigation bar with the DAWN logo and links for Patient, Lists, Calls, Reports, DAWN, Management, and Help. Below this is a search bar with a 'Search' button. The search criteria are set to 'OwnOrganisation' and 'Name'. The search term 'Dawn' is entered in the 'Name' field. A yellow callout bubble points to the 'Name' field with the text 'Enter part of the organisation name'. Another yellow callout bubble points to the 'Search' button with the text 'Click search'. Below the search bar is a table of results. The first row is for 'Dawn Hospital' and is highlighted. A yellow callout bubble points to the 'Dawn Hospital' entry with the text 'Click to edit the organisation'. The table has columns for 'In Use', 'Address 1', 'Address 2', 'Town', 'Telephone', 'Email', and 'Code'.

Hospital	In Use	Address 1	Address 2	Town	Telephone	Email	Code
Dawn Hospital	<input checked="" type="checkbox"/>	101 Prince Regent Rd		Newcastle Upon Tyne	01539563091		

### 16.5.2 Select the Location tab

The screenshot shows the DAWN 'Dawn Hospital' location management interface. The 'Type' is set to 'Hospital' and the 'Name' is 'Dawn Hospital'. The 'In Use' checkbox is checked. Below this is a tabbed interface with tabs for 'Address', 'Professionals', 'Teams', 'Wards', 'Location', 'Clinics', 'Patient groups', and 'Print station'. The 'Location' tab is selected. A yellow callout bubble points to the 'Add a new record' button with the text 'Click to add a new location'. Below the tabs is a table of existing locations. The table has columns for 'Name' and 'Notes'. The locations listed are 'Laboratory', 'Clinic room', 'Office', 'Moorside', and 'Allington'. A yellow callout bubble points to the 'Notes' column with the text 'List of existing locations'.

Name	Notes
Laboratory	
Clinic room	
Office	
Moorside	
Allington	

### 16.5.3 Add a new location

DAWN®

Location ✕

Organisation: Dawn Hospital ➤ Location: (New record)

Name Enter a name

Notes

Order Nr 0

In Use ☒

You will need to save this new record before you can add related records

Click on OK to save this record

OK Cancel

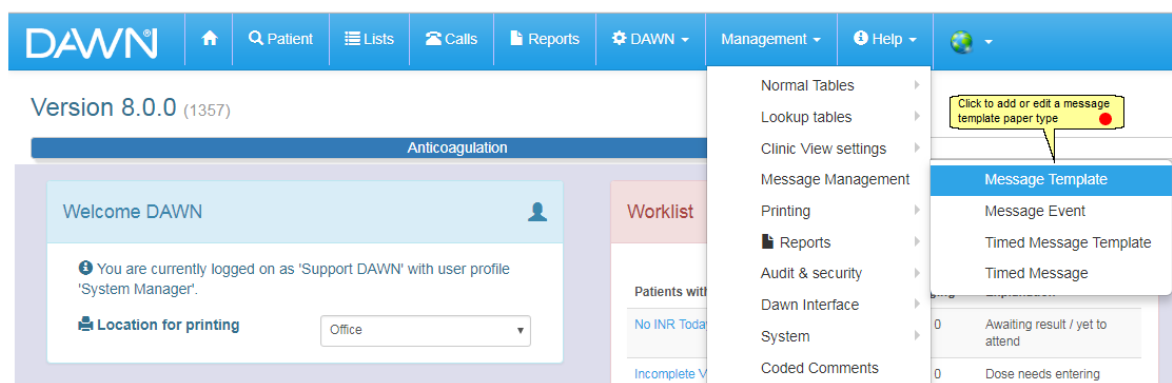
## 16.6 Selecting paper types

Paper types can be set against an individual message template or against a message event. Paper types set in message events are over-ruled by the paper types set in the message event.

Setting paper types in message templates

Setting paper types in message events

### 16.6.1 Selecting Paper Type in Message Template



### 16.6.1.1 List of message templates

DAWN®

Home Patient Lists Calls Reports DAWN Management

Message Template

Search

Search for: Name Description Template

Click here to set the paper type for this message

Name	Description Template
Annual Review Letter (to GP) [DM]	Annual Review Letter (to GP) [DM]
Dosing Instruction examples	Dosing Instruction examples
Example Addresses	Example Addresses
Annual Review Letter (to referring physician)	Annual Review Letter (to referring physician)
Annual Review Letter (to referring physician) [DM]	Annual Review Letter (to referring physician) [DM]
Annual Review Letter (to GP)	Annual Review Letter (to GP)
[**Content**] Annual Review Letter Text	[**Content**] Annual Review Letter Text
Due To Stop Request (to referring Physician)	Due To Stop Request (to referring Physician)
Due To Stop Request (to GP)	Due To Stop Request (to GP)
Due To Stop Request (to referring Physician) (DM)	Due To Stop Request (to referring Physician) (DM)
Due To Stop Request (to GP) (DM)	Due To Stop Request (to GP) (DM)
[**Content**] Due To Stop Confirmation Text	[**Content**] Due To Stop Confirmation Text
Non Attendance Letter (cc referring physician #3)	Non Attendance Letter (cc referring physician #3)
Non Attendance Letter (cc referring phys #3)[DM]	Non Attendance Letter (cc referring phys #3)[DM]
Non Attendance Letter (cc GP #3)	Non Attendance Letter (cc GP #3)

here.

### 16.6.1.2 Adding/Editing a message template paper type

**DAWN®** | Home | Patient | Lists | Calls | Reports | Global

Message Event ✕

<b>Caption</b>	Dose letter as PDF
<b>Event Type</b>	Patient_ManualMessage
<b>Template</b>	Dose letter economailer
<b>Patient message</b>	Written
<b>Next Of Kin message</b>	(Send no message)
<b>GP message</b>	(Send no message)
<b>Consultant message</b>	(Send no message)
<b>HC Profs message</b>	(Send no message)
<b>Keep informed level</b>	(None selected)
<b>HC Professional Type</b>	(None selected)
<b>In Use</b>	<input checked="" type="checkbox"/>
<b>Paper Type</b>	A4 Plain
<b>Order No</b>	

Navigation: New | Delete | Save | List | Print

Callouts:  
 - Select the paper type (points to Paper Type dropdown)  
 - Click to save the message event paper type (points to Save button)

### 16.6.2 Selecting Paper Type in Message Event

**DAWN®** | Home | Patient | Lists | Calls | Reports | DAWN | Management | Help

Version 8.0.0 (1357)

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Worklist

Management Menu:

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
  - Message Template
  - Message Event**
  - Timed Message Template
  - Timed Message
- Printing
- Reports
- Audit & security
- Dawn Interface
- System
- Coded Comments

Callout: Click here to add or edit a message event paper type (points to Message Event)

### 16.6.2.1 List of message events

Message Event ✕

Search Q

Search for: Caption  Event Type -All- Template  Search

Choose a message event ●

	Caption	Event Type	Template	In Use	Order
	Dose letter as PDF	Patient_ManualMessage	Dose letter economailer	<input checked="" type="checkbox"/>	0
	Dose letter automatic print	Treatment_OnSchedule	Dose Letter (Simple)	<input checked="" type="checkbox"/>	0
	Treatment plan and recent history	ClinicView	Treatment Plan and Recent History Report	<input checked="" type="checkbox"/>	0
	INTOUT	ClinicView	INTOUTNONOTES	<input checked="" type="checkbox"/>	30
	DNA	Treatment_OnPatientDidNotAttend	Non Attendance Letter (cc GP #3) [DM]	<input checked="" type="checkbox"/>	40
	DNA Discharge	TreatmentPlan_OnPatientIsNonAttending	Discharge for Non Attendance Notice (to GP) [DM]	<input checked="" type="checkbox"/>	50
	INTOUT	Patient_ManualMessage	INTOUTNONOTES	<input checked="" type="checkbox"/>	60
	Call Patient with dose	Patient_ManualMessage	Dose Letter (Simple)	<input checked="" type="checkbox"/>	180
	PAS Update - inactivate	TreatmentPlan_OnStop	Outbound ADT*A01 or A03 Status Update Message	<input checked="" type="checkbox"/>	220
	PAS update - activate	TreatmentPlan_OnActivate	Outbound ADT*A01 or A03 Status Update Message	<input checked="" type="checkbox"/>	230
	PAS Update - inactivate (on deceased)	Patient_OnPatientDeceased	Outbound ADT*A01 or A03 Status Update Message	<input checked="" type="checkbox"/>	240

⏮ ⏪ ⏩ ⏭ New Save Print ↺

### 16.6.2.2 Adding/Editing a message event paper type

DAWN® Home Q Patient Lists Calls Reports ⌵

Message Event ✕

**Caption**   
**Event Type** Patient\_ManualMessage ▼  
**Template** Dose letter economailer ▼ →  
**Patient message** Written ▼  
**Next Of Kin message** (Send no message) ▼  
**GP message** (Send no message) ▼  
**Consultant message** (Send no message) ▼  
**HC Profs message** (Send no message) ▼  
**Keep informed level** (None selected) ▼  
**HC Professional Type** (None selected) ▼  
**In Use** ☒  
**Paper Type** A4 Plain ▼  
**Order No**

Select the paper type

Click here to save this message event paper type ●

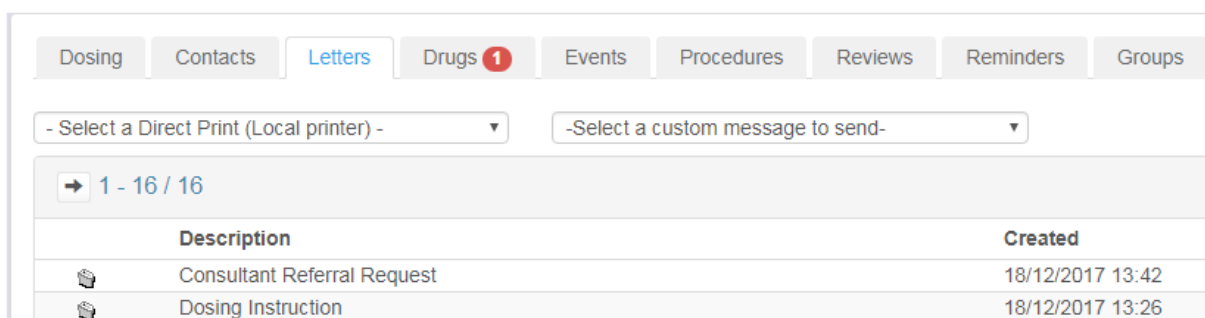
⏮ ⏪ ⏩ ⏭ New Delete Save List Print

## 17 Setting Up Messaging - email, SMS, phone, fax



DAWN can be set to send messages to patients/ relatives/ carers/ healthcare professionals in the form of printed letters, faxes, e-mails and /or SMS (text messages).

For each recipient, the patient or healthcare professional may be set to have certain preferences for messaging via phone, message events or timed messages. These are set on the Patient or HCProfessional screens.

Some messages can be triggered automatically when an appointment is set or a patient record is activated - see Message events. For example, details of the patient may be sent to a colleague in Pathology when they are registered on DAWN. A record of any messages sent will be displayed on the Letters tab.



The screenshot shows the 'Letters' tab selected in the DAWN interface. At the top, there are tabs for Dosing, Contacts, Letters (active), Drugs (with a red notification icon), Events, Procedures, Reviews, Reminders, and Groups. Below the tabs are two dropdown menus: '- Select a Direct Print (Local printer) -' and '-Select a custom message to send-'. A pagination bar shows '1 - 16 / 16'. Below this is a table with two columns: 'Description' and 'Created'.

Description	Created
 Consultant Referral Request	18/12/2017 13:42
 Dosing Instruction	18/12/2017 13:26

Some messages can be triggered manually from the DAWN patient record via the Letters tab. The user can select from the 'Direct print' options to print to local printers or use the 'Custom message' menu to send a print to a remote printer or send a phone call to the Message Center queue of calls.

Some messages are set to trigger at set times using Timed Message settings to send a reminder to a patient to get tested 7 days in advance or to remind a consultant to log into DAWN and check some results. See more detail on Timed message settings.

NEXT

### 17.1 Queuing phone calls - Message Center

Should you wish to queue or line up phone calls to your patients and make the calls later, you can add a phone call 'message' which will then appear on the list under '**Message Center**'.



Version 8.0.0 (1357)

Click to view queued calls

Anticoagulation

Welcome DAWN

You are currently logged on as 'Support DAWN' with user profile 'System Manager'.

Location for printing: Office

Worklist

Patients with	Induction	Maintenance	Mant. Bridge
No INR Today	0	6	
Incomplete	0	3	

### 17.1.1 List of queued calls

DAWN will remove the patient from the Message Center list once your call has been marked **'Success'** and you should make a note on the patient screen to record details of your call. The call will be taken off the list for the time specified if you get **'No answer'** and want to try later.

Message Center

Call list

Call details

Messages I sent

Click on a patient record

Patient	call	# messages
Daenerys TARGARYEN (01/01/1987) - 012 345 6789 / 02	Patient	1
Fred ADAMSON (29/04/1931) -	Patient	1
Mark BANKS (28/12/1931) - 5019952135 / 02	Patient	1

### 17.1.2 View the message

Call list | **Call details**

**Patient** Click here to go to the patient record [Go to Patient Record](#)

**Name** TARGARYEN, Daenerys  
**NHS Number** 012 345 6789 / 02  
**Address**  
**Home phone** 01539563091  
**Mobile phone** 07527113321

**Messages for Daenerys TARGARYEN**

	Sent at	Patient/message	Status	Sent written?
▶	23/01/2018 14:23	Dosing Instruction	First call	<input type="checkbox"/>
	18/12/2017 13:52	Dosing Instruction	First call	<input type="checkbox"/>

◀ ▶ 1/2

**Dosing Instruction**

Anticoagulation  
Miss Daenerys TARGARYEN Scroll here to see the full message

Click here to mark the call a success

**Success** **No answer** **Undeliverable** Click here to mark the call as undeliverable

**Postpone** 15 min Click here to mark the call as No answer and for the call to be removed from the list for 15 minutes or other specified time

**Send written**

## 17.2 Messages to Patients

Messages can be sent automatically, in batches or individually to one or more patient(s) based on the preferences set.

Message options include:

The screenshot shows the 'Personal' tab selected in the top navigation bar. Below it, the 'Contact info' sub-tab is active. A dropdown menu is open, showing options for 'Messaging method'. The options are: E-mail, Email with PDF Attachment, SMS, Fax, Mail (highlighted), Phone pref. (written by E-mail), Phone pref. (written by E-mail/PDF), Phone pref. (written by SMS), Phone pref. (written by fax), and Phone pref. (written by mail). The 'Mail' option is selected in the dropdown. To the left of the dropdown, the 'Personal and Address' section is visible, with fields for Home phone, Mobile phone, Work phone, Email address, and Fax number. To the right, the 'Additional' section is visible.

- **Message events** in DAWN can send an automatic message when the patient is activated or a next appointment is scheduled
- **Timed messages** in DAWN can send an automatic message at a predefined time such as 10am 3 days before the blood test is due
- **Message events** in DAWN may be used to select a batch of patients from a list view and send all a message
- **Message events** may be set in DAWN to manually trigger a message for a patient using the Letters tab

The patient's preference for messaging may be taken into account for some of the above message types. For example, a particular patient might opt out of receiving any SMS messages for blood test reminders. Also, a patient might elect to have all clinic letters by e-mail but a particular batch letter regarding change of clinic location might be printed and mailed to all patients.

Message event messages for your patient are recorded on the Letters tab. Timed messages are not shown on the Letters tab but can be viewed using a report called 'Timed Messages Generated' and the settings are shown on the Timed Message screen.

### 17.2.1 Patient Message Preferences - mail

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Contact info	Next of kin	Clinical	Owners	Account	Audit	

Personal and Address	Contact	Additional
Home phone	01539563091	
Mobile phone	07527113321	
Work phone	01539563092	
Email address	daenerys@targaryen.com	
Fax number		
Messaging method:	Mail	

### 17.2.2 Patient Message Preferences - SMS

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Contact info	Next of kin	Clinical	Owners	Account	Audit	

Personal and Address	Contact	Additional
Home phone	01539563091	
Mobile phone	07527113321	
Work phone	01539563092	
Email address	daenerys@targaryen.com	
Fax number		
Messaging method:	SMS	

Selecting 'SMS' will send the message from the message event to the patient via SMS (an external system connection for SMS via Email will need to be configured).

### 17.2.3 Patient Message Preferences - Email with PDF Attachment

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Contact info	Next of kin	Clinical	Owners	Account	Audit	

Personal and Address	Contact	Additional
Home phone	01539563091	
Mobile phone	07527113321	
Work phone	01539563092	
Email address	daenerys@targaryen.com	
Fax number		
Messaging method:	Email with PDF Attachment	

Selecting 'SMS' will send the message from the message event to the patient via SMS (an external system connection for SMS via Email will need to be configured).

## 17.2.4 Patient Message Preferences - Phone

Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info Next of kin Clinical Owners Account Audit

Personal and Address Contact Additional

Home phone 01539563091

Mobile phone 07527113321

Work phone 01539563092

Email address daenerys@targaryen.com

Fax number

Messaging method: Phone pref. (written by mail)

Selecting '**Phone preferred (written by mail)**' will permit letters to be printed for this patient but phone calls may be sent to the Message Center. A short delay may be set between generating the phone call and it appearing on the Message Center list. This is a setting used to delay e-mails and other messages in case of the need to recall the message. The setting can be located in 'System settings' and is called '**Message\_DelayMinutes**'.

**NB** - phone calls will not reach the Message Center if no numbers are added to any of the 3 options - Home phone, Mobile phone or Work phone.

## 17.2.5 Patient Message Preferences - To Next of Kin

The patient's Next of Kin can choose to receive SMS or Emails with PDF attachments.

Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info **Next of kin** Clinical Owners Account Audit

Name

Address

Home phone

Mobile phone

Work phone

EmailAddress

Fax number

Messaging method: SMS

## 17.2.6 Patient Message Preferences - via Timed Messages

It is only necessary to override the default message method for the Timed Message if the patient wants to either: not receive the message by opting out or receive the message by a different method (e.g. email not SMS) and / or to a different email address or mobile phone number than their main contact details (e.g. next of kin).

To add a specific contact detail for a patient, open a patient's record. Then click on the Personal tab and then on the Contact Additional) tab. In the Additional contact details, click on the Email / SMS Alerts tab and then the form icon to add new contact details for a Timed Message.

Graph History **Personal** Treatment plans Questionnaires Test Results Interface Warnings

Contact info Next of kin Clinical Owners Account Audit

Personal and Address Contact (main) **Contact (Additional)**

Add a new record Telephone Numbers

There are no items to display

Add a new record Email Addresses

There are no items to display

Add a new record Email / SMS Alerts

There are no items to display

Click on Add a new record to add a new Timed Message for this patient

Once you have clicked on the form icon, click on the New button at the bottom of the next screen. You can then add message contact details for the patient.

### 17.2.6.1 New patient timed message

Message Contact Details ✕

Patient: TARGARYEN Daenerys (01/01/1987) # / 012 345 6789 > Message Contact Details: (New record)

Template (Make a choice)

Message Method (Make a choice)

Contact Type (None selected)

In Use ☒

Select OK when done

✓ OK ✕ Cancel

Details entered on this screen will override the default message method defined for the timed message and / or allow contact details other than the main mobile number or email address for the recipient to be used when sending the message.

There is no need to enter details here if the recipient wants to receive the alert by the default method for the message to their main mobile number or email address.

To see the default settings or the message contact your system administrator or view the Timed Messages screen from the System Menu.

## 17.3 Messages for HC professionals

Messages can be sent automatically, in batches or individually to one or more HCProfessional(s) based on the preferences set.

Message options include:

- **Message events** in DAWN can send an automatic message when the patient is activated or a next appointment is scheduled
- **Timed messages** in DAWN can send an automatic message at a predefined time such as 10am 3 days before the blood test is due
- **Message events** in DAWN may be used to select a batch of patients from a list view and send all a message
- **Message event** may be set in DAWN to manually trigger a message for a patient using the Letters tab

The HCprofessional preference for messaging may be taken into account for some of the above message types. For example, a particular HCProfessional might opt out of receiving any SMS messages for blood test reminders. Also, an HCProfessional might elect to have all clinic letters by e-mail but a particular batch letter regarding change of clinic location might be printed and mailed to HCProfessionals.

Message event messages for your patient are recorded on the Letters tab. Timed messages are not shown on the Letters tab but can be viewed using a report called 'Timed Messages Generated' and the settings are shown on the Timed Message screen.

### 17.3.1 HC Professional Message Preferences - Message Preferences -Mail

14 IMPERIAL AVENUE - Perry V U

Organisation

14 IMPERIAL AVENUE

Role

GP

Last name

Perry

First name

V U

Initials

P

In Use

☒

Address info

Teams

Account info

Notes

Patients

Title

Dr

National Number

G8712863

Local Number

Direct Telephone

07829 487435

Mobile

0777 351 5424

Email

Direct Fax

01539 324 6714

Messaging methc

Mail

Email / SMS Alerts

Add a new record

There are no items to display

Selecting 'SMS' will send the message from the message event to the patient via SMS (an external system connection for SMS via Email will need to be configured).



### 17.3.2 HC Professional Message Preferences - Message Preferences - Email with PDF Attachment

14 IMPERIAL AVENUE - Perry V U

Organisation	14 IMPERIAL AVENUE
Role	GP
Last name	Perry
First name	V U
Initials	P
In Use	<input checked="" type="checkbox"/>

Address info Teams Account info Notes Patients

Title	Dr
National Number	G8712863
Local Number	
Direct Telephone	07829 487435
Mobile	0777 351 5424
Email	
Direct Fax	01539 324 6714
Messaging method	Email with PDF Attachment

Email / SMS Alerts

Add a new record

There are no items to display

Selecting 'SMS' will send the message from the message event to the patient via SMS (an external system connection for SMS via Email will need to be configured).

### 17.3.3 HC Professional Message Preferences - via Timed Messages

It is only necessary to override the default message method for the Timed Message if the patient wants to either: not receive the message by opting out or receive the message by a different method (e.g. email not SMS) and / or to a different email address or mobile phone number than their main contact details (e.g. next of kin).

To add a specific contact detail for a patient, open a patient's record. Then click on the Personal tab and then on the Contact info tab. In the Additional contact details, click on the Email / SMS Alerts tab and then the form icon to add new contact details for a Timed Message.

14 IMPERIAL AVENUE - Perry V U

Organisation: 14 IMPERIAL AVENUE

Role: GP

Last name: Perry

First name: V U

Initials: P

In Use: ☒

Address info | Teams | Account info | Notes | Patients

Title: Dr

National Number: G8712863

Local Number:

Direct Telephone: 07829 487435

Mobile: 0777 351 5424

Email:

Direct Fax: 01539 324 6714

Messaging method: Mail

Email / SMS Alerts

Add a new record

There are no items to display

Click to add a new timed message

Once you have clicked on the form icon, click on the New button at the bottom of the next screen. You can then add message contact details for the patient.

### 17.3.3.1 New HC Professional timed message

Message Contact Details

HCPProfessional: 14 IMPERIAL AVENUE - Perry V U > Message Contact Details: (New record)

Template: (Make a choice)

Message Method: (Make a choice)

Contact Type: (None selected)

In Use: ☒

Details entered on this screen will override the default message method defined for the timed message and / or allow contact details other than the main mobile number or email address for the recipient to be used when sending the message.

There is no need to enter details here if the recipient wants to receive the alert by the default method for the message to their main mobile number or email address.

the default settings or the message contact your system administrator or view the Timed Messages screen from the System Menu.

Click OK to save the settings

OK Cancel

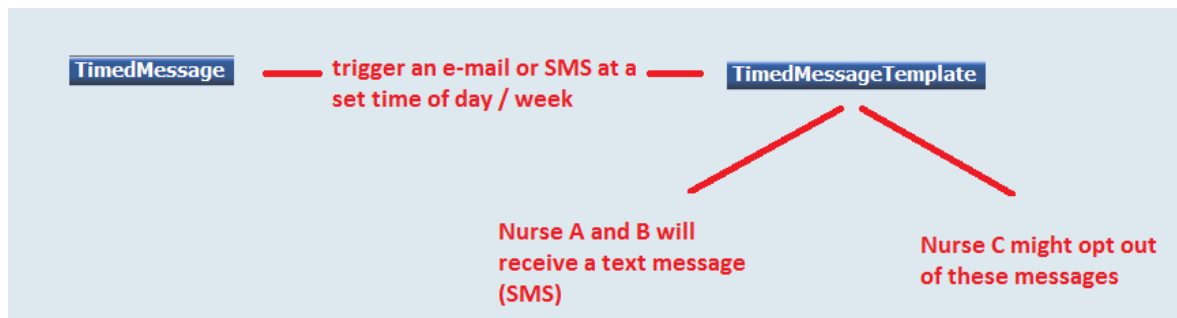
## 17.4 Reminders to log into DAWN for Healthcare Professionals

DAWN features a facility for automatic prompts to one or more healthcare professionals to be set up. This might lead to a consultant getting an e-mail on days when there are results in DAWN awaiting their review.

Each healthcare professional can have a setting to allow or prevent a timed message. Their preference for contact method may also be selected as SMS or email. If a message is to go to all nurses marked active on DAWN, this can be arranged at a specific time for the timed

message.

- **Timed messages** in DAWN can send an automatic message at a predefined time such as 7 days after a patient's blood test was due
- **Timed messages** might include the count of patient records awaiting attention for some reason such as flagged results or missing results.



See preferences for messaging by Healthcare professional

See settings for timed messages

## 18 Reports

**DAWN®** **Reports**

Version 8.0.0 (1360) Click to see a list of reports

**Anticoagulation**

Welcome Brenda

You are currently logged on as 'Nicol Brenda' with user profile 'System Manager'.

Location for printing

**Worklist**

Patients with	Induction	Maintenance	Manual/ Bridging	Explanation
No INR Today	0	0	0	Awaiting result / yet to attend
Incomplete Visits	0	0	0	Dose needs entering and/or authorising

### 18.1 List of reports

**Reports**

Report  Select the report from the drop down list

Start date  Enter a start date and end date

End date

TargetRange  Filter by a particular Target Range (optional)

Upper Age

Lower Age  Enter an upper and or lower age (optional)

TIR Above

TIR Below  Enter an upper and or lower TIR (optional)

Duration more than

Duration less than  Enter the duration filters (optional)

DNACountLessThar

DNACountMoreThar  Enter the duration filters (optional)

GP Surgery  Filter by a particular GP surgery (optional)

Clinic  Filter by clic (optional)

INRs above 5 more than

INRs less than 1.5 more than  Enter any INR value filters (optional)

INRs above 8 more than

Diagnosis  Filter by a particular GP surgery (optional)

Diagnosis

Email address  Enter an email address and email the rpt by clicking Send

Click to view the report Download as XML Download as Text

### 18.2 View report

18 DEBADALE HOUSE													
FirstName	LastName	UnitNo	NatNo	Sex	DOB	Age	Diagnosis	Target Range	Weeks on Therapy	% Time In Range	% Time Below Range	% Time Above Range	Average Dose
Frank	JACKSON	G44406	5479784137	M	27/10/1982	35	ATRIAL FIBRILLATION	2.0 - 3.0	580	100	0	0	4.71
Alistair	SIMMONS	1456289		M	11/08/1961	56	STAFF NOT SURE	2.5 - 3.5 (3.0 Target)	572	100	0	0	2.64
21 STILEMAN HOUSE													
FirstName	LastName	UnitNo	NatNo	Sex	DOB	Age	Diagnosis	Target Range	Weeks on Therapy	% Time In Range	% Time Below Range	% Time Above Range	Average Dose
Regina	MITCHEL	M28447		F	01/01/1945	73	ATRIAL FIBRILLATION	2.0 - 3.0	690	100	0	0	1.35
Pat	LILLEY	W23693	9882472948	F	11/08/1920	97	PE POST OPERATIVE	2.0 - 3.0	606	75.45	24.55	0	7.79
Mimi	WOLSENHOLME	P81882	9738439374	F	05/10/1919	98	PULMONARY EMBOLISM NOT SP	2.0 - 3.0	375	100	0	0	50
Mary	BROWN	J16081	9776258475	F	18/01/1958	60	ANGINA	2.0-3.0 trial	538	77.45	0	22.55	2.21
Alistair	MENDLESON	Z86508	5988481614	M	07/09/1908	109	ARTERIALSCLEROSIS	2.5 - 3.5 (3.0 Target)	551	56.83	43.17	0	10.07
Anne	BROWN	P43837	4222297500	F	29/03/1957	60	ATRIAL FIBRILLATION	2.0 - 3.0	633	59.15	0	40.85	2.79
Jonathan	HIGSON	E80266	4192569903	M	22/01/1936	82	ATRIAL FIBRILLATION	2.0 - 3.0	594	80.5	0	19.5	0.64

## 18.3 Running Reports

The screenshot shows the DAWN software interface. The top navigation bar includes the DAWN logo, a home icon, and several menu items: Patient, Lists, Calls, Reports (highlighted with a red circle), Mark, Management, and two search icons. Below the navigation bar, the version is listed as 'Version 8.0.1 (1370)'. The main content area is divided into three sections: 'Welcome Mark' with a user profile and a location for printing dropdown; 'Conditions of Use' with a list of 10 warnings and conditions; and 'Worklist' with a table of patient status counts. A 'Messaging' section is also visible at the bottom right.

Patients with	Induction	Ma
No INR Today	0	
Incomplete Visits	0	
Missed Test	0	
Active Treatment Plan	0	
New Treatment Plan	0	
No next test date	0	

Choose the report from the dropdown menu and select any parameters as required before choosing [Show report](#).

The screenshot shows the 'Report' generation form in DAWN. It includes a dropdown menu for 'Report' (set to 'Count of INRs by Clinic'), fields for 'Start date' and 'End date', an 'Email address' field with a 'Send' button, and buttons for 'Show report', 'Download as XML', and 'Download as Text'. Below the form is a table showing the results of the report.

Clinic	Count
Default Clinic	7

Data may be extracted from DAWN by saving as a text file or e-mailing to yourself or a colleague. Further data analysis may then be possible using Microsoft Excel or another programme.

## 19 Anticoagulants, Tablet Options, Dosing Regimes and Instructions (warfarin)

### 19.1 Patient Tablet Options and Dosing Regimes - Basic Concepts

In order to produce a meaningful dosing instruction for a patient, DAWN needs to know which anticoagulant they are on and which tablet strength or strengths they use. It also needs to know whether the patient can split tablets into halves or quarters and whether the instruction should say how many tablets to take, how many mg to take or both.

For vitamin K antagonist dosing:-

DAWN AC calculates a suggested dose for a patient based on their current INR result and previous INR and dose history. This dose is a numeric value which can be either the average daily dose or the total weekly dose, according to your preference. However, the calculated dose might come out as 4.81 or 31.17 or something equally unachievable with the tablet strengths available. Consequently DAWN AC must convert this to the nearest achievable dose and present it as an instruction showing the number of tablets (of a given strength) or the number of mg the patient should take on each day of the week. The numeric average daily or total weekly dose is then rounded to the average or total dose represented by the instruction so that it accurately reflects what the patient is actually going to take.

DAWN can do this in one of two ways:

It can dynamically generate an instruction based on the Patient Specific Tablet Options selected on the patient's current treatment plan or it can use a custom Dosing Regime.

#### Patient Specific Tablet Options

Selecting patient specific tablet options is the most flexible way of creating dosing instructions as it lets you customise the options for each patient. To customise the tablet options for a patient, select the *Use Customised Tablet Options* radio button from their Treatment Plan screen then click the *Edit Tablet Options* button to display the *Patient Tablet Options* form.

Here you can set the following options:

Anticoagulant e.g Warfarin

Brand e.g. UK generic, Coumadin, Barr (see note on brands below). Brand is optional

Dose in Whether to show the number of tablets to take or the number of mg to take

Tablet strength(s) You can specify up to three strengths. You must select at least one. If the patient has mixed tablets and you want the instructions to simply show the number of mg to take, select the smallest tablet strength that the patient uses. This ensures all doses are achievable with this strength, even if some can be achieved with fewer tablets by using a larger strength.

Show the Total mg line Only applies where the doses are shown as the number of tablets to take. This adds an additional line to the instruction showing the total dose achieved for each day in mg. For example, if the instruction says take 2 x 3mg strengths

tablets each day, the total mg line for each day shows 6mg

**Record dose as** Daily Average or Weekly Total. This determines whether the numeric dose calculated by DAWN or entered manually is interpreted as an average daily amount or the total weekly amount.

**Split tablet into** half a tablet; quarter of tablet; or whole tablets only. Specifies whether the instruction allows for breaking tablets into halves or quarters.

Instructions generated dynamically from patient specific tablet options are always day patterns.

## Dosing Regimes




A dosing regime is a preset combination of all the options shown under Patient Specific Tablet Options above. It consists of a list of preset instructions covering the range of doses DAWN might calculate or a user might enter for a patient. To use a dosing regime, select the *Use Dosing Regime* radio button from the patient's Treatment Plan screen then select the appropriate regime from a drop down list of available regimes.

In other words, instead of choosing the anticoagulant, tablet strength(s), brand and so on individually for a patient using the *Patient Specific Tablet Options* described above, you select a preset combination of these options and DAWN looks up the appropriate instruction in the list of preset instructions instead of working it out dynamically from the patient specific options.

Dosing regimes are useful if you wish to constrain the range of possible dosing instructions that can be given to a patient or if you wish to use plain text instructions instead of day patterns. In other words you would like an instruction that might say:

4mg Daily

...rather than a formatted day pattern such as

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (1 mg) 							
Pills (3 mg) 	1			1			
Pills (5 mg) 	1	1½	1½	1	1½	1½	1½
<b>Total mg</b>	<b>8</b>	<b>7½</b>	<b>7½</b>	<b>8</b>	<b>7½</b>	<b>7½</b>	<b>7½</b>

In versions of DAWN prior to 7.9.48, there was no option to use *Patient Specific Tablet Options* so *Dosing Regimes* were the only option.

## Brands

To allow for differences in:

- Tablet colour and tablet strength among different regions, such as the USA or UK

...and

- Tablet shape among different commercial brands within the same region, such as Coumadin and Jantoven in the USA

...you can define different brands of tablet, for example "Coumadin", "Jantoven", "UK generic". An anticoagulant can have several tablet strength records for the same strength tablet, each belonging to a different Brand. This allows you to use different images, captions and Display Names for different brands of the same anticoagulant.

The following sections describe how to work with dosing instructions and specifically: how to customise a specific instruction; how to change the first day of the week; how to leave days out of the instruction and how to add Low Molecular Weight Heparin instructions to cover Induction or Bridging.

For non-VKA dosing, see New Oral Anticoagulants section.

For help adding new regimes for phenindione or other drugs, please contact support@4s-dawn.com.

**NB** altering or marking a setting in DAWN as not in use may cause unexpected behaviour when dosing or issuing instructions from your DAWN system. Please test thoroughly after any change.

## 19.2 Important Difference When Switching From Regimes To Patient Tablet Options

In most cases dosing instructions generated from patient specific tablet options or looked up from a preset regime look the same. However, if you use regimes which produce instructions with lines for **more than one tablet strength**, there is one **important difference** you should be aware of and make your patients aware of.

**Dosing regimes** in more than one tablet strength show the smallest tablet strength at the top and the largest at the bottom:

With a Regime, the smallest tablet strength is shown on the top row and the largest on the bottom row

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (1 mg)							
Pills (3 mg)	1			1			
Pills (5 mg)	1	1½	1½	1	1½	1½	1½
Total mg	8	7½	7½	8	7½	7½	7½

**Patient Tablet Options** produce instructions that show the largest tablet strength at the top and the smallest at the bottom



With Patient Specific Tablet Options, the largest tablet strength is shown on the top row and the smallest on the bottom row.

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (5 mg)	1	1½	1½	1	1½	1½	1½
Pills (3 mg)	1			1			
Pills (1 mg)							
<b>Total mg</b>	<b>8</b>	<b>7½</b>	<b>7½</b>	<b>8</b>	<b>7½</b>	<b>7½</b>	<b>7½</b>



If you have patients on multi-tablet regimes and you want to switch them over to using customised tablet options, **you must ensure they are aware of this difference** so that they do not misread the new instructions

## 19.3 Dosing Instruction Types

DAWN AC supports two types of dosing instruction, Daypatterns and Plain Text (or non Daypattern) instructions.

Daypattern instructions include a numeric dose for each day of the week. They can be expressed in mg or in up to three different tablet strengths (each on a different line) with the option of displaying the Total mg at the bottom.

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (5 mg)	1	1½	1½	1	1½	1½	1½
Pills (3 mg)	1			1			
Pills (1 mg)							
<b>Total mg</b>	<b>8</b>	<b>7½</b>	<b>7½</b>	<b>8</b>	<b>7½</b>	<b>7½</b>	<b>7½</b>

Dosing Instructions generated dynamically using Patient Specific Tablet Options are always day patterns. Dosing instructions belonging to Dosing Regimes may be either day patterns or plain text instructions.

Plain Text (or non Daypattern) instructions comprise up to four lines of text.

10 mg DAILY

It is possible to have a Regime which consists of a mix of DayPattern and Plain Text (i.e. non DayPattern) instructions. For example you may have a plain text instruction which says "Take no warfarin" for a dose of zero, in a regime which otherwise comprises of day pattern instructions.

The following section "Working with Dosing Instructions" describes how dosing instructions are displayed and edited in Patient View and Message Templates. The section Setting Up Regimes and Instructions describes how dosing regimes and instructions are added and configured.

## 19.4 Working with Dosing Instructions

The following sections show how to use and customise dosing instructions.

### 19.4.1 Day Pattern Instructions (formatted)

Brand /Anticoagulant Display Name

Image - definable by brand and tablet strength

Caption - indicates tablet strength + doses in tablets not mg

Optional Calculated Total mg line

Double click anywhere on instruction to customise

Cycle button - cycles all lines in sync

Background of dose change info (rather than instruction) shaded red/blue to denote size and direction of change

Dose 3.36 d ✓

No dose change

Accept dose New INR/Dose Tested No Further Tests ☐

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Tue 16/01/2018	2.3	3.36 d	<b>Warfarin</b> Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) 1 1 1 1 1 1 1 Total mg 3 3.5 3.5 3 3.5 3.5 3.5	2 wk			

1. The dosing instruction appears in the Dosing Panel as a formatted table. If the instruction is expressed in tablets the instruction includes a line for each tablet strength used in the regime. If it is expressed in mg it comprises a single line.
2. Instructions expressed in tablets show a line caption (text) and an image for each Tablet Strength. Instructions in mg show a fixed caption of "mg" and no image.
3. If you have specified the brand, the Display Name for the Brand is displayed at the top of the instruction, e.g. "warfarin" for the "UK generic" brand or "Coumadin" for the "Coumadin" brand. Where a brand has not been specified, the Anticoagulant name is displayed.
4. If a default dosing instruction for a patient shows an odd dose on one or more days (e.g. 5½ mg on Wed and 5 on all other days), you can use the cycle button to move the dose for each day back one increment at a time (e.g. Wed --> Tue, Tue--> Mon, Mon-->Sun, Sun--> Sat etc). If the instructions comprise multiple lines (for different tablet strengths and/ or total mg), the cycle button moves all lines in unison.
5. In previous versions of DAWN AC all dosing instructions were plain text and the background to the patient's dosing instruction was shaded to denote the direction and size of a dose change. Shades of pink/red denote dose increases while shades of blue denote decreases. The shade deepens with the size of the dose change. A white background denotes no dose change. In version 7.7 onwards, formatted instructions have their own background shading to facilitate reading along lines or down columns. Multi-line dosing instructions can potentially fill the whole dosing instruction box, obscuring the background colour of the box itself. As such, in 7.7 the background of the "% Dose change" or "No Dose Change" message (displayed beneath the instruction) is coloured, to denote the size and direction of the dose change, instead.

### 19.4.2 Customising Dosing Instructions

1. Hovering over any part of the instruction in the dosing panel displays a tool tip saying "Click here to edit"
2. If the User has permission to edit instructions (see User Profile settings), double clicking any part of the instruction displays the edit screen

INR: 2.3 In Range ✓ Date: 16/01/2018 Not scheduled

Customize dosing-instruction

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)		1	1		1	1	1
<b>Total mg</b>	3	3.5	3.5	3	3.5	3.5	3.5

LMWH drug: (None selected)

Dose 3.36 d ✓ No dose change Next 30/01/2018 2 wk ✓

Accept dose New INR/Dose Tested No Further Tests ☐

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments																																
Tue 16/01/2018	2.3	3.36 d	<table border="1"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg)</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (½ mg)</td> <td></td> <td>1</td> <td>1</td> <td></td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td><b>Total mg</b></td> <td>3</td> <td>3.5</td> <td>3.5</td> <td>3</td> <td>3.5</td> <td>3.5</td> <td>3.5</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)		1	1		1	1	1	<b>Total mg</b>	3	3.5	3.5	3	3.5	3.5	3.5	2 wk		<div style="width: 100%; height: 10px; background-color: #28a745;"></div>	
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																
Pills (3 mg)	1	1	1	1	1	1	1																																
Pills (½ mg)		1	1		1	1	1																																
<b>Total mg</b>	3	3.5	3.5	3	3.5	3.5	3.5																																

3. Change the dose for any day/tablet strength by typing a new value in the appropriate field and press Enter. The Total mg line is updated automatically.
4. The Calculated Total mg line is always displayed in the Customise Dosing Instruction form for instructions expressed in tablets of more than 1mg strength, regardless of the setting that determines whether it is displayed in the finished instruction.
5. On saving or hitting enter, the total weekly dose (or average daily dose) in the main dosing panel on the left is updated with the new weekly total (or daily average) of the customised pattern and the current instruction is updated with the changes to each day's dose.
6. If the customised pattern causes the total weekly (or average daily) dose to cross any red question mark alert threshold (such as large dose change, direction of dose change, % dose change > treatment plan limit), the red question mark alert is displayed in the same way as if the dose had been typed in to the numeric dose field or set using the up and down arrow buttons.

7. Pressing the Close Edit form X button closes the Customise Dosing Instruction form and saves any changes
8. If you make an edit to an instruction that DAWN determines to be a loading or bridging dose, the numeric dose field and the up, down, last dose and cycle buttons are all disabled. The only way of changing the dose is now via the editing form.
9. If you make a minor edit to an instruction (such as a regular maintenance therapy dose change or a customisation that changes the pattern of doses and days but still distributes the doses reasonably evenly throughout the week), the numeric dose and up, down, last dose and cycle buttons remain enabled.
10. A customised instruction is carried forward as the dose instruction for successive tests so long as neither the dose or regime/patient tablet options change. This is the case even if the total weekly or average daily dose does not match a standard instruction in the instruction table. The LMWH part of the instruction is never carried forward (see add a LMWH Instruction).
11. Clicking the Cancel All Customisations button resets the instruction back to the default instruction suggested by the dosing engine. When you click the Cancel All Customisations button, you are prompted to confirm you wish to cancel all customisations.

### **19.4.3 Change the First Day of the Week**

**Dosing** | Contacts | Letters | **Drugs 1** | Events | Procedures | Reviews | Reminders | Groups

INR: 2.3 **In Range** ✓ Date: 16/01/2018 📅 Not scheduled

Customize dosing-instruction 🔄 ✕

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg) 📄	1	1	1	1	1	1	1
Pills (½ mg) 📄		1	1		1	1	1
<b>Total mg</b>		3.5	3.5	3	3.5	3.5	3.5
LMWH drug: (None selected)							

Dose 3.36 d ✓ No dose change Next 30/01/2018 📅 2 wk ✓

**Accept dose** | New INR/Dose | Tested | No Further Tests ☐

**Graph** | **History** | Personal | Treatment plans | Questionnaires | Test Results | Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
📅 Tue 16/01/2018	2.3	3.36 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 📄 1 1 1 1 1 1 Pills (½ mg) 📄 1 1 <b>Total mg</b> 3 3.5 3.5 3 3.5 3.5 3.5	2 wk		<div style="width: 100%;"></div>	

- To change the first day of the week for an instruction, select the new day from the drop down list box for the first day in the instruction. The Days of the week change so they start with the day you select.

#### 19.4.4 Leave Days Out of the Instruction

**Dosing** | Contacts | Letters | **Drugs 1** | Events | Procedures | Reviews | Reminders | Groups

INR: 2.3 **In Range** ✓ Date: 16/01/2018 📅 Not scheduled

Customize dosing-instruction 🔄 ✕

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg) 📄	1	1	1	1			
Pills (½ mg) 📄		1	1				
<b>Total mg</b>	3	3.5	3.5	3			
LMWH drug: (None selected)							

Dose 3.25 d ⚠ Dose decreased by 3% Next 30/01/2018 📅 2 wk ?

**Accept dose** | New INR/Dose | Tested | No Further Tests ☐

**Graph** | **History** | Personal | Treatment plans | Questionnaires | Test Results | Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
📅 Tue 16/01/2018	2.3	3.25 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 📄 1 1 1 1 Pills (½ mg) 📄 1 1 <b>Total mg</b> 3 3.5 3.5 3	2 wk		<div style="width: 100%;"></div>	

- To remove one or more days from the instruction, double click the name of the first day you

wish to remove. The selected day and all following days are removed from the instruction. Removed days do not appear in the final instruction. The days names appear in grey in the Editing Form so they can be reinstated (see below).

2. You can reinstate a day that has been removed from the instruction by double clicking its (greyed) name. All removed days before the day you click are also reinstated. Any removed days after the day you reinstate, remain removed.
3. If an instruction spans 7 days, it is assumed that the pattern repeats each week. If an instruction spans less than 7 days, it is assumed the patient is to be tested again on the day following the end of the instruction. For example, if an instruction includes doses for Mon, Tue and Wed, DAWN AC expects the patient to be tested again on Friday. If the recommended next test date (suggested by the dosing engine or set manually) is later than expected (for example the instruction spans 3 days and the recommended next test interval is 7), a red question mark alert is displayed next to the recommended interval. You cannot accept the dose until you have amended the discrepancy or clicked the red question mark to acknowledge the warning (see illustration below).
4. If a customised instruction spans less than 7 days, DAWN AC works out the average dose based on the days included in the instruction and stores this as the numeric dose. If the patient is on a Weekly regime, it is not possible to work out a weekly total, so an average daily dose is substituted and the daily/weekly flag on the particular treatment record is updated accordingly so that DAWN AC knows how to interpret this dose. The numeric dose in the dosing panel now displays a "d" or "w" to show whether it is a daily or weekly dose, in the same way as doses displayed in the treatment history.
5. DAWN AC prevents dose calculation where the previous dose instruction spanned less than 7 days.

#### 19.4.5 Instructions in Mg

Sinthrome	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg		3	3	3	3	3	3

1. If the dosing instruction is expressed in mg, the formatted instructions comprise a single line. The caption is "mg" and no tablet picture is included.
2. Sometimes patients are given a single tablet strength but their dosing instructions are expressed in mg. If the tablet strength is greater than 1mg, some individual week day doses are not achievable. For example, you cannot take 2mg on Monday if you only have 3mg Strength tablets. The Patient Specific Tablet Options settings or Dosing Regime holds the minimum tablet strength and minimum part of a tablet that is permissible (e.g. half a tablet, quarter of a tablet, whole tablet). When customising a dosing instruction expressed in mg, you are prevented from specifying a dose for any day that is not achievable using the smallest permissible part of the smallest possible tablet strength. In other words if the smallest tablet strength is 3mg and the smallest permissible part of the tablet is "half a tablet", the dose you specify for each day must be divisible by 1.5.

#### 19.4.6 Adding LMWH Instructions

LMWH doses can be recorded in DAWN

Using specific syringe sizes or regimes

OR

Weight based dosing

OR

Manually dosing

### 19.4.6.1 Using specific syringe sizes or regimes

INR: 2.6 In Range ✓ Date: 05/02/2018 ✓

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Dose: 3.00 d ✓ No dose change Next: 19/03/2018 6 wk ✓

Accept dose New INR/Dose Tested No Further Tests ☐

#### 19.4.6.1.1 Select the LMWH drug

Select the LMWH drug or Pentasaccharide agent from the drop down list.

[Dosing](#)
[Contacts](#)
[Letters](#)
[Drugs 1](#)
[Events](#)
[Procedures](#)
[Reviews](#)
[Reminders](#)
[Groups](#)

INR: 2.3 In Range ✓ Date: 16/01/2018 🔔 🔄 📅 Not scheduled

Customize dosing-instruction
 Cancel all customisations
Close editing form

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)		1	1		1	1	1
<b>Total mg</b>					3.5	3.5	3.5

LMWH drug: (None selected) Click on the drop down list

Dose 3.36 d ✓ No dose change Next 30/01/2018 📅 2 wk ✓

Accept dose New INR/Dose Tested No Further Tests ☐

[Graph](#)
[History](#)
[Personal](#)
[Treatment plans](#)
[Questionnaires](#)
[Test Results](#)
[Interface Warnings](#)

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
🔔 Tue 16/01/2018	2.3	3.36 d	<b>Warfarin</b> Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) 1 1 1 1 1 1 1 Pills (½ mg) 1 1 1 1 1 1 1 <b>Total mg</b> 3 3.5 3.5 3 3.5 3.5 3.5	2 wk		<div><div></div></div>	

The options displayed depend on the settings for the LMWH drug you select.

#### 19.4.6.1.2 Select the syringe size or regime

If the LMWH drug has syringe sizes defined, the dose field comprises a drop down list of available syringe sizes. To modify the dose, select an alternative dose from the available syringe sizes.



[Dosing](#)
[Contacts](#)
[Letters](#)
[Drugs 1](#)
[Events](#)
[Procedures](#)
[Review](#)

INR: 2.4 In Range ✓ Date: 12/01/2018 ✓ ↺ Not sch

Customize dosing-instruction

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Innohep

Sun	Mon	Tue	Wed	Thu	Fri	Sat

08:00

Tinzeparin

24h (single amount)

Dose 3.00 d ✓

Accept dose

Graph

Add history data

Next 26/01/2018 2 wk ?

Tested No Further Tests ☐

Personal Treatment plans Questionnaires Test Resu

Date Dose Dosing Instructions

#### 19.4.6.1.3 Set the days and doses

If the patient is due for a procedure on say Wednesday, you may wish them to take a 24 hour dose on most days but only take a 12 hour dose on Tuesday so they are not anticoagulated by the time of their operation. In other words, specify one injection time but different amounts on different days. In this case, choose 24h (two amounts) from the drop down list to display a second dose line. Specify an alternative dose and select the days on which each dose should be taken.

[Dosing](#)
[Contacts](#)
[Letters](#)
[Drugs 1](#)
[Events](#)
[Procedures](#)
[Re](#)

INR: 2.4 In Range ✓ Date: 12/01/2018 ✓ ↺

Customize dosing-instruction

Warfarin

Fri

Sat

Sun

Mon

Tue

Wed

Thu

Pills (3 mg)

0

0

1

1

Pills (½ mg)

Total mg

0

0

0

3

3

3

3

Innohep

Fri

Sat

Sun

Mon

Tue

Wed

Thu

08:00

11000

iu

✓

✓

✓

✓

6000

iu

✓

Tinzeparin

Manual

24h (two amounts)

#### 19.4.6.1.4 Change the time of day

If you leave the PM time at its default value and change the AM time, the PM time updates automatically. If you change the PM time so that it is not 12 hours after the AM time, a red exclamation mark is displayed beside it to highlight the difference.

[Dosing](#)
[Contacts](#)
[Letters](#)
[Drugs 1](#)
[Events](#)
[Procedures](#)
[Review](#)

INR: 2.4 In Range ✓ Date: 12/01/2018 ✓ ↺

Customize dosing-instruction

Warfarin

Fri

Sat

Sun

Mon

Tue

Wed

Thu

Pills (3 mg)

0

0

1

1

Pills (½ mg)

Total mg

0

0

0

3

3

3

3

Innohep

Fri

Sat

Sun

Mon

Tue

Wed

Thu

10:00

11000

iu

✓

✓

✓

✓

6000

iu

✓

Tinzeparin

Manual

24h (two amounts)

1. Using 12h dosing the PM dose is automatically set to the same value as the AM dose
2. If the dose is automatically populated with the (default) dose defined for the LMWH drug, the full amount is displayed for the for both the AM and PM. For example if the dose defined for

the LMWH drug is 40 mg and you select 12h (single amount), the patient's dose defaults to AM dose = 40 and PM dose = 40.

3. The PM dose is read only.

#### 19.4.6.1.5 Accept the Bridging Dose

**Dosing** | Contacts | Letters | Drugs **1** | Events | Procedures | Reviews

INR: 2.4 In Range ✓ Date: 12/01/2018 ✓ ↺ Not scheduled

	Warfarin	Fri	Sat	Sun	Mon	Tue	Wed	Thu
Pills (3 mg)							1	1
Pills (½ mg)								
<b>Total mg</b>		0	0	0	0	0	3	3
<b>Innohep</b>		Fri	Sat	Sun	Mon	Tue	Wed	Thu
10:00	11000iu	✓	✓	✓	✓			✓
	6000iu					✓		

Dose 0.86 d ⚠ Dose decreased by 71% Next 19/01/2018 7 d ✓

Accept the dose ⚠

Accept dose New INR/Dose Tested No Further Tests ☐

#### 19.4.6.2 Weight based dosing

If the (default) Dose defined as a Dose per kg rather than an absolute amount, DAWN works out the dose from the patient's weight and displays the result.

**Dosing** | Contacts | Letters | Drugs **1** | Events | Procedures | Review

INR: 2.1 In Range ✓ Date: 12/01/2018 ✓ ↺ Not sch

Customize dosing-instruction ↺ ✕

	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)		1	1	1	1	1	1	1
Pills (½ mg)								
<b>Total mg</b>		3	3	3	3	3	3	3
<b>Lovenox</b>		Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00	40Mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20:00	40Mg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Enoxaparin ▼ 1 mg per Kg (q12h) ▼

Patient's weight: 40.8 kg (89.9 lbs) (Measured 20/12/2017)

The patient's weight and the date it was measured

Dose 3.00 d ✓ No dose change Next 26/01/2018 2 wk ?

Accept dose New INR/Dose Tested No Further Tests ☐

### 19.4.6.2.1 Weight check for no recorded weight

If the patient's weight has not been recorded in DAWN AC, a warning is displayed.

**Dosing** | Contacts | Letters | **Drugs 1** | Events | Procedures | Review

INR: 2.1 In Range ✓ Date: 12/01/2018 ✓ ↻

Not sc

Customize dosing-instruction

Warfarin		Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)		1	1	1	1	1	1	1
Pills (½ mg)								
<b>Total mg</b>		3	3	3	3	3	3	3

Lovenox		Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00	0Mg							
20:00	0Mg							

Enoxaparin ▾ 1 mg per Kg (q12h) ▾

**WARNING: The patient's weight is not known**

No wa

Treatmer

Dose 3.00 d✓ No dose change Next 26/01/2018 2 wk ?

Accept dose New INR/Dose Tested No Further Tests ☐

### 19.4.6.2.2 Weight check out of date

If a weight measurement is older than the number of days specified in the AC\_LMWH\_PatientWeightMeasurementExpiryIntervalDays system setting, DAWN AC does not calculate a dose and displays the following message box.

**Dosing** | Contacts | Letters | **Drugs** | Events | Proc

INR: 2.3 In Range ✓ Date: 18/01/2018 ✓ ↻

Customize dosing-instruction

Warfarin		Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (5 mg)		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Pills (3 mg)								
Pills (1 mg)		2.0	2.0	2.0	2.0	2.0	2.0	2.0
<b>Total mg</b>		7	7	7	7	7	7	7

Lovenox		Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00	0Mg							
20:00	0Mg							

Enoxaparin ▾ 1 mg per Kg (q12h) ▾

Patient's weight: 55.0 kg (Measured 01/11/2017) - Too old to use. Please re-measure.

### 19.4.6.2.3 Update the patient weight

Update the patient's weight and press Enter (or Save). The dose is calculated from the new weight.

Weight	91.9	lbs
Measured at	01/09/2017	BMI 17.4
Height	61.0	Inch
Measured at	01/09/2017	BSA 1.3

When you enter the weight the Measured at date defaults to today. Change the date to the actual date of the measurement if different, either by over-typing the current date or by clicking the calendar control and picking the date from the pop up calendar.

### 19.4.6.3 Manually dosing LMWH

If the drug has no LMWH Drug regimes or syringe sizes defined, the default dose for the drug is displayed in an editable field, which you can modify, where necessary, by over-typing the default value with the required value. If no default dose has been defined for the drug, the dose field defaults to 0.

Dosing
Contacts
Letters
Drugs 1
Events
Procedures
Reviews

INR: 2.6 In Range ✓
Date: 12/01/2018 ✓ ↶
Not sche

Customize dosing-instruction ↶ ✕

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Lovenox	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00 50 Mg							


Enoxaparin
Manual
24h (single amount)

Dose 3.00 d✓ No dose change
Next 26/01/2018 2 wk ?

Accept dose
New INR/Dose
Tested
No Further Tests



### 19.4.7 Validation of LMWH doses



1. If the LMWH drug has a min and max dose defined, the system checks that the dose you have specified falls within these limits.
2. If the dose falls outside these limits, a warning message is displayed when you try to close the Customise Dosing Instruction form. When you OK the message you are returned to the Customise Dosing Instruction form. You must change the dose to a valid amount before you can close the Customise Dosing Instruction form or save the record.

 The dose of 150 Mg on day 1 is higher then the upper limit of 50 Mg

**OK**



INR: 2.2 In Range ✓ Date: 12/01/2018 ✓ ↺

Customize dosing-instruction  

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg) 	1	1	1	1	1	1	1
Pills (½ mg) 							
<b>Total mg</b>	3	3	3	3	3	3	3

Lovenox	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00 150 Mg <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Enoxaparin ▼ Manual ▼ 24h (single amount) ▼

Dose 3.00 d ✓ No dose change Next 26/01/2018  2 wk 

3. If the LMWH Drug is weight based, the Min and Max doses are defined as a Min dose per kg and a Max dose per kg. In this case, the actual Min and Max dose permitted is calculated for each patient based on their weight.
4. If the LMWH Drug is not weight based the Min and Max doses constitute absolute limits which apply to all patients.
5. If Min and / or Max doses have not been defined, no lower and / or upper limit is enforced on the patient's dose.
6. If LMWH Drug Regimes have been defined for the drug, the Max and Min amounts defined for the particular Regime are used.
7. If syringe sizes have been defined for the drug, the dose is rounded to the nearest syringe size, so ensure Max and Min limits are wide enough to accomodate this rounding.
8. If the drug is prescribed in 24 hour doses, but you use the *24 hour/ two amounts* option to specify a half dose for a certain day (such as the day before the patient undergoes a procedure), ensure the lower limit is sufficiently low to permit a half dose.

## 19.4.8 Dosing History

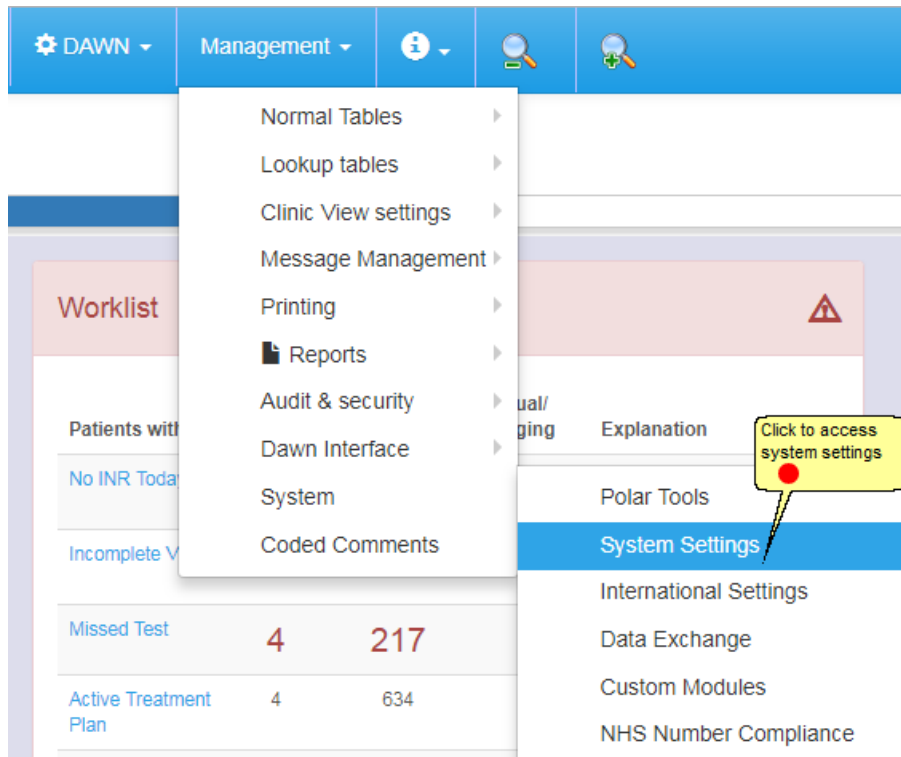
Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings									
Add history data									
Date	INR	Dose	Dosing Instructions						
Wed 20/12/2017	2.6	0.64 d	<div> <div>Full dosing instructions shown</div> <div> <div>Warfarin Sun Mon Tue Wed Thu Fri Sat</div> <div> Pills (1 mg) 1 1/2 1/2 1 1/2 1/2 1/2 Pills (3 mg) Pills (5 mg) Total mg 1 1/2 0.5 1 0.5 0.5 0.5 </div> </div> </div>						
Tue 14/11/2017	2.4	0.64 d	<div> <div>Full dosing instructions shown</div> <div> <div>Warfarin Sun Mon Tue Wed Thu Fri Sat</div> <div> Pills (1 mg) 1 1/2 1/2 1 1/2 1/2 1/2 Pills (3 mg) Pills (5 mg) Total mg 1 1/2 0.5 1 0.5 0.5 0.5 </div> </div> </div>						
Tue 31/10/2017	2.5	0.64 d	<div> <div>Full dosing instructions shown</div> <div> <div>Warfarin Sun Mon Tue Wed Thu Fri Sat</div> <div> Pills (1 mg) 1 1/2 1/2 1 1/2 1/2 1/2 Pills (3 mg) Pills (5 mg) Total mg 1 1/2 0.5 1 0.5 0.5 0.5 </div> </div> </div>						
Tue 24/10/2017	2.8	0.64 d	<div> <div>Full dosing instructions shown</div> <div> <div>Warfarin Sun Mon Tue Wed Thu Fri Sat</div> <div> Pills (1 mg) 1 1/2 1/2 1 1/2 1/2 1/2 Pills (3 mg) Pills (5 mg) Total mg 1 1/2 0.5 1 0.5 0.5 0.5 </div> </div> </div>						
Tue 03/10/2017	2.3	0.64 d	<div> <div>Full dosing instructions shown</div> <div> <div>Warfarin Sun Mon Tue Wed Thu Fri Sat</div> <div> Pills (1 mg) 1 1/2 1/2 1 1/2 1/2 1/2 Pills (3 mg) Pills (5 mg) Total mg 1 1/2 0.5 1 0.5 0.5 0.5 </div> </div> </div>						

### 19.4.8.1 View full notes

Hovering over the *info* icon displays the full dosing instruction and full notes in a popup window:

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings									
Add history data									
Date	INR	Dose	Dosing Instructions						
Mon 06/12/2016	0.0	0.00 d							
Wed 06/09/2017	3.0	0.50 d	<div> <div>Info icon</div> <div> <div>8mg/1mg ALTERNATE DAYS</div> <div> Patient was unable to get transport to the clinic and has requested home visits. Assessment will be arranged. </div> </div> </div>						
Wed 06/09/2017	3.7	0.50 d	<div> <div>Info icon</div> <div> <div>8mg/1mg ALTERNATE DAYS</div> <div> Patient was unable to get transport to the clinic and has requested home visits. Assessment will be arranged. </div> </div> </div>						

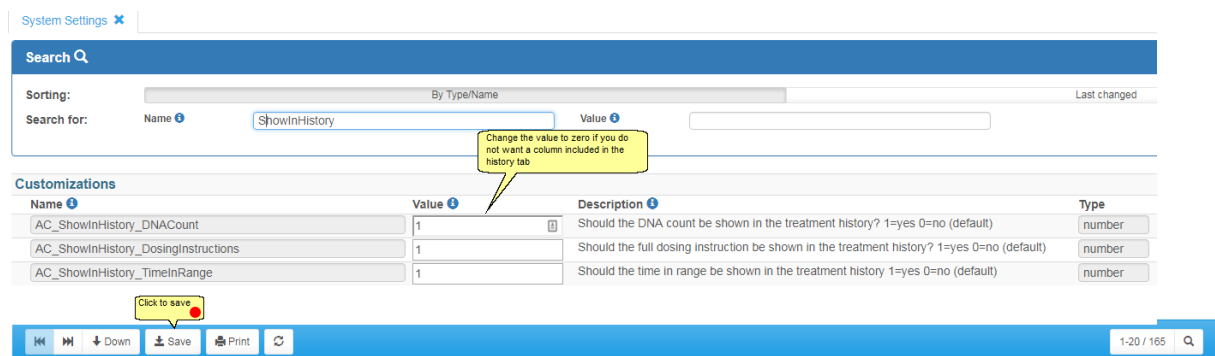
### 19.4.9 Deciding which columns to include in the history tab



1.

#### 19.4.9.1 Add or Remove columns from the history tab

Search for ShowInHistory





### 19.4.9.2 History tab with all optional columns removed

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Add history data						
Date	INR	Dose			Time	Comments
Fri 11/05/2018	0.0	0.00 d				
Thu 03/05/2018	2.6	10.00 d			8 wk	
Thu 15/03/2018	2.4	10.00 d			12 wk	
Thu 21/12/2017	2.6	10.00 d			12 wk	
Thu 12/10/2017	1.9	10.00 d			10 wk	
Tue 01/08/2017	2.6	10.00 d			10 wk	
Tue 06/06/2017	2.5	10.00 d			8 wk	
Tue 25/04/2017	2.6	10.00 d			6 wk	

If the dosing instruction is hidden, the info icon is always displayed. Hovering over the info icon always shows the dosing instruction in a popup window even if there are no notes or if the patient took the intended dose.

### 19.4.10 Preventing dose calculations based on inappropriate doses

#### Summary of criteria for preventing dosing calculation based on a previous dose

Automatic dose calculation is prevented where the last treatment record meets any of the following criteria:

1. Therapy = "Manual/Bridging"
2. Custom Instruction Spans < 7 days (unless the current Therapy is Induction)
3. Custom Instruction includes a LMWH dose
4. Custom Instruction appears to be for a loading dose or other such one-off exception.

In order to spot an exceptional dose (such as a loading dose), DAWN looks at how evenly the doses are spread among the different days of the week. If any two days differ by more than an expected amount, DAWN marks the instruction as having "major customisations" and prevents automatic dose calculation next time.

The DosingInstruction\_MaxDiffBetweenDays system setting defines what counts as an expected amount (in version 7.9.45 onwards). The system setting can be one of the following values:

- |          |   |
|----------|---|
| <b>2</b> | The smallest tablet part used in the regime.<br><br><i>If the regime permits using half tablets, this is half the tablet strength (if the</i> |
|----------|---|

	<i>regime includes more than one tablet strength, it is half the smallest tablet strength ). If the regime does not permit half tablets, this is one whole tablet.</i>
<b>1</b> (default)	One whole tablet (if the regime uses more than one tablet strength, this is the smallest tablet strength).
<b>0</b>	Any amount (in other words, the check is disabled).

For example: let us suppose a patient is on 3mg strength tablets and normally takes 1½ tablets (4.5 mg) every day. They stop warfarin temporarily while having a surgical procedure and start again on the following loading dose:

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
3mg Strength	3	2	1½	1½	1½	1½	1½
Total Mg	9	6	4½	4½	4½	4½	4½

The largest dose in the pattern (Sun) and the smallest dose (Tues onwards) differ by one and a half tablets or 4.5mg. The tablet strength is 3mg and half tablets are allowed so the smallest tablet part is half a tablet or 1.5mg. Thus, if the system setting is set to either 1 or 2, this instruction would be marked as a major customisation and automatic dose calculation prevented next time, because the gap between the largest and smallest dose for any day differs by more than 1.5mg (the threshold if the system setting is 2) and 3mg (the threshold if the system setting is 1).

Choosing the right setting is a matter of compromise. When using the default setting of 1, there may be some loading doses that DAWN dose not detect. For example, if the patient's normal dose is 1 tablet every day and they are given a one-off loading dose of 2 tablets on Sun and 1 every other day, the largest and smallest doses only differ by one whole tablet so are not seen as a major customisation. (If you gave the double dose for 2 days, this would result in a 28% dose change and DAWN may automatically move the patient to manual dosing for that reason).

While using the most sensitive setting (2) may be more likely to detect all loading doses, it may cause DAWN to wrongly identify some normal maintenance patterns as exceptions. For example, if a particular patient struggles with half tablets you might suggest they achieve an average daily dose of 4.5mg using the following customised pattern:

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
3mg Strength	1	0	1	0	1	0	1
Total Mg	3	0	3	0	3	0	3

With the system setting set to 2, DAWN would (wrongly) identify this as an exception dose,

whereas with a setting of 1, it would be perfectly permissible as a repeating maintenance dose.

The default setting is 1 (one whole tablet), which will catch most but not all loading doses, while still allowing some flexibility with tailoring maintenance dosing patterns to suit individual patients. For this reason, **do not rely on DAWN to identify all loading doses**, unless they span less than 7 days, include LMWH doses or result in a sufficiently large dose change that the patient is automatically moved to manual dosing.



**Please ensure you have adequate checking mechanisms in place to ensure you never inadvertently carry forward a one-off exception dosing patterns, without relying exclusively on this check.**

**If you wish to change this setting, please contact the 4S DAWN support to discuss the implications first.**

### 19.4.11 Retrospectively Adjusting the Last Dose

If the patient has not been taking the tablet pattern they were advised to take, the last dose is not an accurate basis for the current dose calculation. Providing the current INR has not yet been entered (and the dose calculated), you can adjust the dosing pattern for the last dose to reflect what the patient has actually been taking. When you enter the next INR, the new dose calculation uses this adjusted "actual" dose as the basis for the next dose.

Date	INR	Dose	Dosing Instructions	Time	DNA	In range																																
Mon 19/03/2018	0.0	0.00 d																																				
Mon 05/02/2018	2.6	3.00 d	<table border="1"> <thead> <tr> <th>Warfarin</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> </tr> </thead> <tbody> <tr> <td>Pills (3 mg)</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Pills (1 mg)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total mg</b></td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)		1	1	1	1	1	1	Pills (1 mg)								<b>Total mg</b>	3	3	3	3	3	3	3	6 wk		
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																															
Pills (3 mg)		1	1	1	1	1	1																															
Pills (1 mg)																																						
<b>Total mg</b>	3	3	3	3	3	3	3																															

### 19.4.11. Edit the previous dose

Patient ✕ Treatment ✕

**Treatments for TARGARYEN Daenerys (01/01/1987) # / 012 345 6789**

INR: 2.6 In Range ✓ Date: 05/02/2018 ✓ Tue 30/01

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Dose 3.00 d ✓ No dose change Next 19/03/2018 6 wk ✓

Dawn Hospital - Support DAWN DoseAuthorised

Miscellaneous Status history Audit INR/Dose History VGR

**AC Therapy**

**Non Attendance Count** 0

**See Dr Flag** ☐

**Seen Dr Flag** ☐

**Sample No**

**Inpatient** ☐

**Contact Status** NoRequirement

**Auto Authorisation Result**

**INR Time** 14:42

Double click on the dosing instructions

### 19.4.11. Acknowledge the warning

Patient ✕ Treatment ✕

**Treatments for TARGARYEN Daenerys (01/01/1987) # / 012 345 6789**

INR: 2.6 In Range ✓

Warning: You are going to edit the Actual dose the patient took last period. This is not a prescription for the coming period but may influence the dose that will be calculated.

Click OK to acknowledge the warning message

OK

Edit/view actual dose the patient took

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

Dose 3.00 d ✓ No dose change Next 19/03/2018 6 wk ✓

Dawn Hospital - Support DAWN DoseAuthorised

The tablet options for this patient have changed  
Last 3 INRs are all rising

Treatment Notes

	Date	INR
<input checked="" type="checkbox"/>	05/02/2018	2.6
<input type="checkbox"/>	03/01/2018	2.3
<input checked="" type="checkbox"/>	27/12/2017	2.1
<input checked="" type="checkbox"/>	20/12/2017	2.6
<input type="checkbox"/>	13/12/2017	2.5
<input type="checkbox"/>	07/12/2017	1.9
<input type="checkbox"/>	01/12/2017	2.3
<input type="checkbox"/>	22/11/2017	1.7
<input type="checkbox"/>	01/11/2017	2.3
<input type="checkbox"/>	01/01/2017	2.4
<input type="checkbox"/>	07/11/2016	2.1

### 19.4.11. Edit the dose to reflect what the patient took

Treatments for TARGARYEN Daenerys (01/01/1987) # / 012 3

INR: 2.6 In Range ✓ Date: 05/02/2018 ✓ ↺

Edit/view actual dose the patient took

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1		1	1	1
Pills (1 mg)				2			
<b>Total mg</b>	3	3	3	3	3	3	3

Dose 3.00 d ✓ No dose change Next 19/03/2018 6 wk ✓

Dawn Hospital - Support DAWN DoseAuthorised

Click on the cross to save this dose

### 19.4.11. View full dose after retrospective editing

If you have edited the last dose to record the dose the patient actually took because this is different to the dose they were supposed to take, the history panel shows the amended numeric dose with a blue exclamation mark beside it to indicate it was not the intended dose (see Working with Dosing Instructions / Retrospectively Adjusting the Last Dose).

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range
Mon 19/03/2018	0.0	0.00				
Mon 05/02/2018	2.6	2.86 d	Warfarin Sun Mon Tue Wed Thu Fri Sat 6 wk			
30/01/2018	4.2	2.43 d				
Wed 03/01/2018	2.3	3.00 d				
Wed 27/12/2017	2.1	3.00 d				

Hover on the Information icon in the history screen to see both the suggested and amended doses

Details

Actual dose the patient took							
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1		1	1	1
Pills (1 mg)				2			
<b>Total mg</b>	3	3	3	2	3	3	3

Dose the patient was supposed to take							
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)							
<b>Total mg</b>	3	3	3	3	3	3	3

### 19.4.12 Including Instructions in MessageTemplates

- For backward compatibility, existing MessageTemplates that include dosing instructions continue to display a plain text version of the dosing instruction without the need for any changes.

2. Where DAWN AC is running in compatibility mode or where the instructions are Plain Text (Non Day Pattern) instructions, the dosing instructions look exactly as they did in previous versions of DAWN AC.
3. Where the Instructions are Day Pattern Instructions and DAWN AC is not running in Non Day Pattern, the plain text instructions reflects the layout of the formatted (HTML) instructions.



```

warfarin  Tue Wed Thu Fri Sat Sun
Tabs 1 mg  3½  3½  3½  3½  3½  3½
Tabs 5 mg
Total mg   3½  3½  3½  3½  3½  3½

```

4. It is possible to display the formatted (HTML) style instruction in your MessageTemplate instead of the Plain Text Version, for example...

Take 0.00 mg for 2 days, then:

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Tablet 1mg 	2		2		2		2
Tablet 5mg 		½		½		½	
<b>Total mg</b>	2	2½	2	2½	2	2½	2

.. however, this requires a change to your MessageTemplates.

Please contact 4S DAWN support for help if you would like your message templates to display formatted (HTML) instructions.

Tel: +44 (0)15395 63091  
support@4s-DAWN.com

#### 19.4.13 Permitting or Prohibiting Custom Instructions

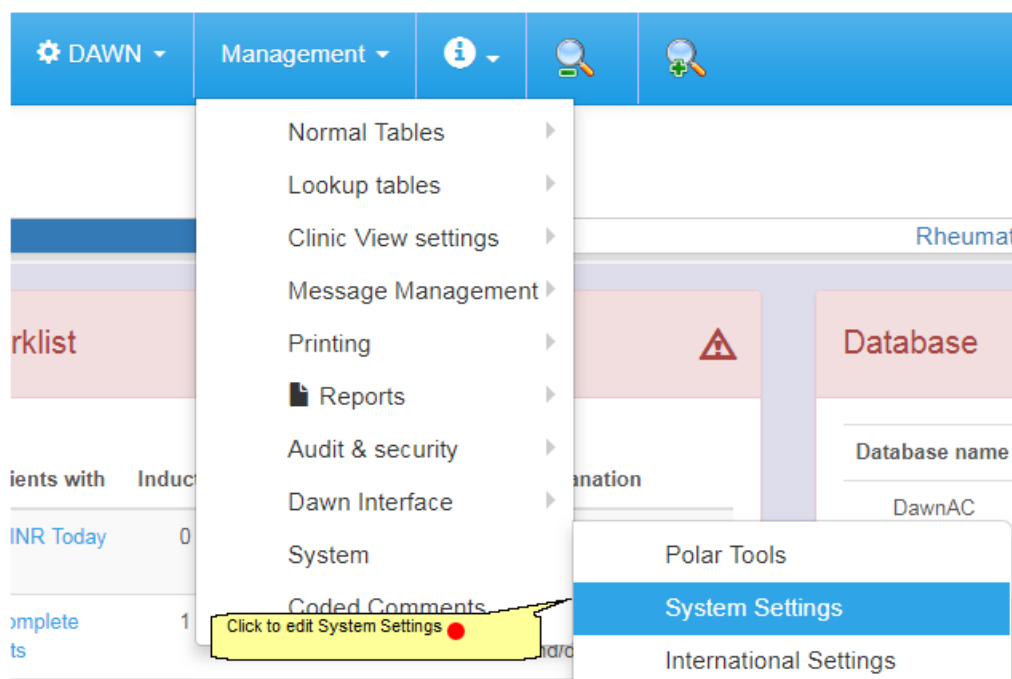
A system setting controls whether doses can be customised and a user profile setting controls which users are permitted to custom dose a patient.

Permitting or Prohibiting Custom Instructions - System Setting

Permitting or Prohibiting Custom Instructions - User Profile Setting

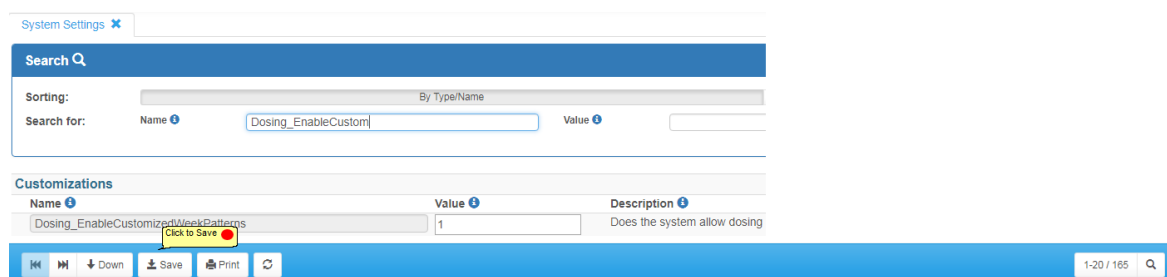
#### 19.4.13. Permitting or Prohibiting Custom Instructions - System Setting

The *Dosing\_EnableCustomizedWeekPatterns* System Setting determines whether anyone is permitted to customise individual dosing instructions for patients. To change this setting.



#### 19.4.13.1.1 Editing System Settings

Type "Dosing\_EnableCustom" in the Name field in the Search Panel at the top and press the Search button. The *Dosing\_EnableCustomizedWeekPatterns* System Setting is displayed.

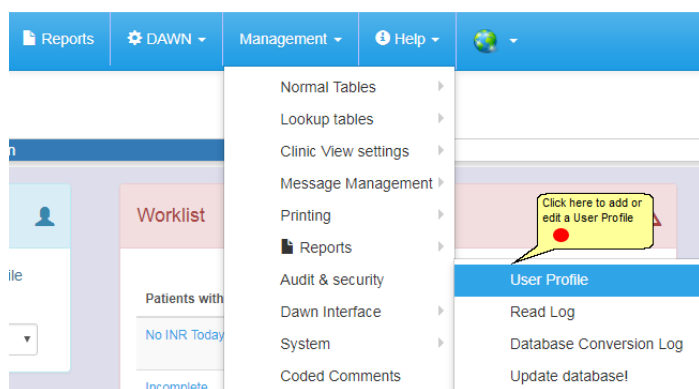


Change the Value to:

- 1 Permit users to customise dosing instructions (depending on User Profile settings - see below)
- 0 Prohibit anyone from customising dosing instructions

#### 19.4.13.1.2 Permitting or Prohibiting Custom Instructions - User Profile Setting

Changing the System Setting to allow customised dosing enables you to give certain groups of users permission to customise instructions. By default no users have this permission, so you need to edit the appropriate User Profiles and switch this permission on. To switch this permission on for a User Profile:



#### 19.4.13.2.1 Editing User Profile Settings

Select the appropriate User Profile from the list display at the top to display its current settings. Where the *Dosing\_EnableCustomizedWeekPatterns* System Setting is set to 1 (True), the AllowCustomizedWeekPattern setting is displayed in the Treatment section of the User Profile form.

Description	System Manager
Schedule Treatment	High
Unschedule Treatment	High
Enter And Accept INR	High
DNA Treatment	High
Accept Dose	High
Authorise Dose	High
Authorise Manual/Bridging Treatment	<input checked="" type="checkbox"/>
Reset Treatment	High
Add/Edit Treatment Records	<input checked="" type="checkbox"/>
Customise Dose Instructions	<input checked="" type="checkbox"/>

Select this checkbox to allow all users with this profile to customise instructions. Deselect this checkbox to prevent users with this profile from customising instructions.



After changing User Profile settings you must **log out** and log back in, before the new settings take effect (for your current login).

#### 19.4.14 Plain Text (Non DayPattern) Instructions

Plain text instructions are defined purely as text.

An example of a plain text instruction might be...



The screenshot shows the 'Dosing' tab with a patient's INR of 2.4 (In Range) and a date of 15/03/2018. The current instruction is '10 mg DAILY'. A yellow callout box points to the cycle button, stating: 'The cycle button is disabled for plain text instructions.'

At the bottom, there are buttons for 'Accept dose', 'New INR/Dose', 'Tested', and 'No Further Tests'.

#### 19.4.14. Customising Plain Text (Non Day Pattern) Instructions

It is possible to customise a non day pattern instruction. However, the customised instruction is always expressed in mg and each day's dose must be entered manually as there is no day pattern default.

See the section Customising Dosing Instructions for full details on customising dosing instructions.

The screenshot shows the 'Dosing' tab with a patient's INR of 2.4 (In Range) and a date of 15/03/2018. The 'Customize dosing-instruction' dialog is open, showing a table for Warfarin dosing by day of the week. The 'mg' row shows empty input fields for each day. The 'Total mg' row shows 0 for all days. The 'LMWH drug' dropdown is set to '(None selected)'.

At the bottom, there are buttons for 'Accept dose', 'New INR/Dose', 'Tested', and 'No Further Tests'.

#### 19.4.15 Day Pattern Instructions (compatibility mode)

1. If older style DayPattern Instructions have been upgraded from a previous version of DAWN AC, they are converted to the new formatted style. However, the original format is retained. The `AC_DisplayTextStyleDosingInstructions` system setting determines whether the new formatted or backwards compatible plain text instructions are displayed.

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Warfarin							
Pills (10 mg)	10	1/2	1/2	1/2	1/2	1/2	1/2
Total mg	5	5	5	5	5	5	5

Instruction displayed in the formatted style

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
White tablet(s) [10 mg strength]	1/2	1/2	1/2	1/2	1/2	1/2	1/2

The same instruction displayed in compatibility mode

- You cannot customise dosing instructions displayed in compatibility mode.
- If you plan to display instructions for new Dosing Regimes (created in 7.7 onwards) in compatibility mode you must ensure all the required text fields for each instruction are complete. The first two text lines are created automatically from the days and doses entered in the daypattern, but the third and fourth lines are blank by default.

If the text in these lines does not change between instructions, you can define default values for these fields in the Regime just as if you were creating a non day pattern instruction (see Setting Up Regimes and Instructions / Regimes and Instructions / Creating Non Daypattern Instructions). Thus, in the example above:

Sun Mon Tue Wed Thu Fri Sat  
 1 1 1 1 1 1 1  
 PILLS (3 mg SIZE) PER DAY

Created  
 automatically  
 Entered as default in the Regime or  
 manually in each instruction

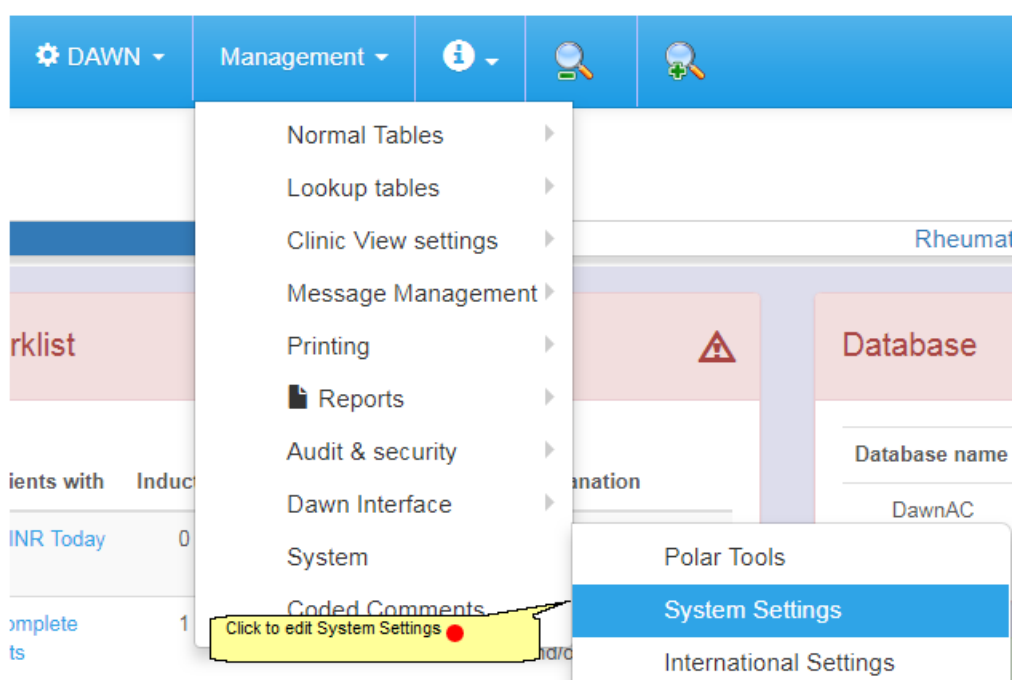
- Compatibility mode instructions cannot be defined for Regimes comprising more than one tablet strength.

This functionality is included for backwards compatibility only. It is not necessary to define old style instructions for new regimes if you plan to display instructions in the formatted style.

We recommend you move to using formatted (HTML) instructions if you use Day Patterns.

## 19.5 Displaying Instructions In Fractions or Decimals

Dosing instructions can be displayed in fractions (eg. 2½ tablets, 3¼ mg) or decimals (eg. 2.5 tablets, 3.25 mg) or a mixture of both (eg Dosing in multiple tablet sizes with the total dose per day in mg).



### 19.5.1 System settings for fractions and/or decimals



If your dosing instructions are configured to display decimals rather than fractions, the potential of misreading a decimal in the dosing instructions should be taken into account.

Search on *AC\_DisplayDosing*

The screenshot shows the System Settings page with a search for 'ac\_display'. The 'Customizations' section lists three settings:

- AC\_DisplayDosingInstructions\_ShowTotalMgInDecimals**: Value 0. Description: Should the Total Mg line of a dosing instruction always be displayed in decimals regardless of whether the tablet lines are shown in fractions. 0=No; 1=Yes. Type: Integer. Min: 0, Max: 1. Required: Yes. Last Changed: 09/01/2018 15:05.
- AC\_DisplayDosingInstructionsInDecimals**: Value 0. Description: Must the AC dosing-instructions be displayed using fractions (0) or decimals (1). Type: Integer. Min: 0, Max: 1. Required: Yes. Last Changed: 07/04/2018 10:36.
- AC\_DisplayTextStyleDosingInstructions**: Value 0. Description: Must the AC dosing-instructions be displayed in text-style (1) instead of HTML-formatted style (0). Type: Integer. Min: 0, Max: 1. Required: Yes. Last Changed: 20/02/2017 11:36.

Yellow callout boxes provide instructions: 'Change this value to 1 to display the total dose in mg' for the first setting, 'Change this value to 1 to display all instructions in decimals' for the second, and 'Leave the settings with the value 0 to see instructions only in fraction' for the third.

#### 19.5.1.1 Displaying instructions in fractions only

Dosing Instructions							
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)		½		½		½	
<b>Total mg</b>	<b>3</b>	<b>3½</b>	<b>3</b>	<b>3½</b>	<b>3</b>	<b>3½</b>	<b>3</b>

### 19.5.1.2 Displaying instructions in decimals only

Dosing Instructions							
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)		0.5		0.5		0.5	
<b>Total mg</b>	<b>3</b>	<b>3.5</b>	<b>3</b>	<b>3.5</b>	<b>3</b>	<b>3.5</b>	<b>3</b>

### 19.5.1.3 Displaying instructions in fractions and decimals

Dosing Instructions							
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)		$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$	
<b>Total mg</b>	<b>3</b>	<b>3.5</b>	<b>3</b>	<b>3.5</b>	<b>3</b>	<b>3.5</b>	<b>3</b>

## 19.6 Setting Up Default Values for Patient Specific Tablet Options

You can set up a default patient tablet options template to reflect the options for the majority of patients. This can be amended on a patient specific basis.

The screenshot shows the DAWN Management interface. The 'Management' menu is open, displaying a list of options. A yellow callout box points to the 'Patient Tablet Options Default Settings' option at the bottom of the list.

**Management Menu Options:**

- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Dawn Interface
- System
- Coded Comments
- Anticoagulation Tables
- Allergy
- Anticoagulant Brand
- Blood Group
- Cessation Reason
- Diagnosis
- Disease area
- Drug
- Ethnic Origin
- Event
- HC Professional Type
- Intervention Timeslot
- Language
- LM
- TargetRange INR
- Anticoagulant
- Regime
- Induction Algorithm
- INR Result Range
- AC Test Alias
- Therapeutic Indications
- Qualifying Risk Factors
- Interacting Drugs
- Specific Risks
- Permitted Regimes
- Non VKA Dose
- Questionnaire Settings
- Patient Tablet Options Default Settings**

**Worklist Table:**

Missed Test	0	130
Active Treatment Plan	4	635
No next test date	1	78

### 19.6.1 Default patient tablet options - anticoagulant

Patient Tablet Options Default Settings ✕ Patient ✕ Anticoagulant Brand ✕ Anticoagulant ✕

Anticoagulant Warfarin ✕ →

Brand Search for: Warfarin →

Record Dose As: Phenindione

Split Tablet Into: Acenocoumarol

Dose in: Phenprocoumon

Tablet Strength 1 Dindevan

Tablet Strength 2 COUMADIN

Tablet Strength 3

Show Total Daily Dose Line?

Use Patient Tablet Options by default?

Zero Dose Message

Select your most commonly used anticoagulant

### 19.6.2 Default patient tablet options - brand

Patient Tablet Options Default Settings ✕

Anticoagulant Warfarin ▼ →

Brand (None selected) ✕

Record Dose As: Search for: (None selected)

Dose in: kovar (kovar)

Tablet Strength 1 Canonpharma (Canonpharma)

Use Patient Tablet Options by default? Marevan (Marevan)

Warfarin (Warfarin)

Nycomed (Nycomed)

Jantoven (USA) (Jantoven)

Grindeks (Grindeks)

Taro (USA) (Warfarin)

Coumadin (USA) (Coumadin)

UK Generic (Warfarin)

Orion Pharma (Orion Pharma)

Barr (USA) (Warfarin)

USA Generic (Warfarin)

Select the most commonly used brand or leave blank to set this on a patient basis

Zero Dose Message

### 19.6.3 Default patient tablet options - daily or weekly

Patient Tablet Options Default Settings ✕ Patient ✕ Anticoagulant Brand ✕ Anticoagulant ✕

Anticoagulant: Warfarin

Brand: UK Generic (Warfarin)

Record Dose As: (None selected) Restrict to this option only. ☒

Split Tablet Into: (None selected) **Daily Average** Weekly Total

Dose in: Mg Restrict to this option only. ☐

Tablet Strength 1: (None selected)

Use Patient Tablet Options by default? ☐

Please enter the message to be displayed when the dose is zero(0).  
Use ##anticoagulant name## if you want to include the anticoagulant name.  
For example: "Take no ##anticoagulant name##" would display as "Take no warfarin" if the patient is on warfarin.  
Leave blank for no message.

Zero Dose Message: Take no ##anticoagulant name##

**Annotations:**

- Record the dose as a daily average or weekly total
- Check this box to ensure there are no inadvertent mixups between daily and weekly doses

### 19.6.4 Default patient tablet options - whole or split tablets

Patient Tablet Options Default Settings ✕ Patient ✕ Anticoagulant Brand ✕ Anticoagulant ✕

Anticoagulant: Warfarin

Brand: UK Generic (Warfarin)

Record Dose As: Daily Average Restrict to this option only. ☒

Split Tablet Into: Whole tablet Whole tablet **Half a tablet** Quarter of a tablet

Dose in: (None selected)

Tablet Strength 1: (None selected)

Use Patient Tablet Options by default? ☐

Please enter the message to be displayed when the dose is zero(0).  
Use ##anticoagulant name## if you want to include the anticoagulant name.  
For example: "Take no ##anticoagulant name##" would display as "Take no warfarin" if the patient is on warfarin.  
Leave blank for no message.

Zero Dose Message: Take no ##anticoagulant name##

**Annotation:**

- Decide whether whole tablets or splitting tablets is allowed.

### 19.6.5 Default patient tablet options - mg or tablets

Patient Tablet Options Default Settings ✕ Patient ✕ Anticoagulant Brand ✕ Anticoagulant ✕

Anticoagulant: Warfarin

Brand: UK Generic (Warfarin)

Record Dose As: Daily Average Restrict to this option only. ☒

Split Tablet Into: Half a tablet

Dose in: Mg Restrict to this option only. ☒

Tablet Strength 1: (None selected) Mg Tablets

Use Patient Tablet Options by default? ☐

Please enter the message to be displayed when the dose is zero(0).  
Use ##anticoagulant name## if you want to include the anticoagulant name.  
For example: "Take no ##anticoagulant name##" would display as "Take no warfarin" if the patient is on warfarin.  
Leave blank for no message.

Zero Dose Message: Take no ##anticoagulant name##

### 19.6.6 Default patient tablet options - tablet sizes

Patient Tablet Options Default Settings ✕ Patient ✕ Anticoagulant Brand ✕ Anticoagulant ✕

Anticoagulant: Warfarin

Brand: UK Generic (Warfarin)

Record Dose As: Daily Average Restrict to this option only. ☒

Split Tablet Into: Half a tablet

Dose in: (None selected)

Tablet Strength 1: (None selected)

Show Total Daily Dose Line? ☐

Use Patient Tablet Options by default? ☐

Choose up to three tablet sizes picking the largest tablet first or leave blank to decide on a patient basis

Zero Dose Message

Search for:

(None selected)

Pills (½ mg), White (UK Generic (Warfarin))

Pills (1 mg), Brown (UK Generic (Warfarin))

Pills (2 mg), 2 Mg (UK Generic (Warfarin))

Pills (3 mg), Blue (UK Generic (Warfarin))

Pills (5 mg), Pink (UK Generic (Warfarin))

### 19.6.7 Default patient tablet options - save default settings

Patient Tablet Options Default Settings ✕ Patient ✕ Anticoagulant Brand ✕ Anticoagulant ✕

Anticoagulant: Warfarin

Brand: UK Generic (Warfarin)

Record Dose As: Daily Average Restrict to this option only. ☒

Split Tablet Into: Half a tablet

Dose in: Tablets Restrict to this option only. ☒

Tablet Strength 1: Pills (3 mg), Blue (UK Generic (Warfarin))

Tablet Strength 2: Pills (1 mg), Brown (UK Generic (Warfarin))

Tablet Strength 3: (None selected)

Show Total Daily Dose Line? ☒ If dosing in tablets, decide whether to display a total mg line

Use Patient Tablet Options by default? ☒ Check to use patient tablet options by default

Please enter the message to be displayed when the dose is zero(0).  
Use ##anticoagulant name## if you want to include the anticoagulant name.  
For example: "Take no ##anticoagulant name##" would display as "Take no warfarin" if the patient is on warfarin.  
Leave blank for no message.

Zero Dose Message  
Click here to save

Take no ##anticoagulant name##

Save List Print

### 19.6.8 Default patient tablet options - explanation of fields

**Anticoagulant** Your most commonly used anticoagulant, for example, warfarin

**Brand** If you use different brands of warfarin (or your most commonly used anticoagulant), choose the most prevalent brand. If you don't have any brands set up, leave this blank.

**Record Dose As** Choose whether you enter the dose as a daily average or the weekly total when you add history or manually update the numeric dose

In the following example, the numeric dose is the daily average. If it was recorded as a weekly total the Dose field would be 28 and would be followed by a small "w". The instruction would be the same:

INR: 2.5 In Range ✓ Date: 03/05/2016

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (5 mg)							
Pills (3 mg)	1	1	1	1	1	1	1
Pills (1 mg)	1	1	1	1	1	1	1
<b>Total mg</b>	4	4	4	4	4	4	4

No dose change Dose: 4.00 d

Most sites only ever record doses as daily averages or only ever record doses as weekly totals. If this is the case, select whichever option is appropriate then check the *Restrict to this option only* checkbox to ensure this is the only option available on a patient's treatment plan.



Some sites who normally record weekly totals, occasionally record daily averages for Induction or Bridging where the dose instruction spans less than 7 days. In this case, select Weekly Total as the default but leave the *Restrict to this option only* checkbox unchecked so both options are available.

### Split Tablet Into

Options: half a tablet; quarter of a tablet or whole tablets. If you usually allow splitting tablets into halves, choose half a tablet as the default. If as a rule, you only use whole tablets, then choose whole tablets only as the default. Users can then amend the setting for individual patients.

Leave this blank if you want this setting to be blank by default. In this case, you will be forced to make a choice for each patient before you can save a new treatment plan record.

### Dose In

This settings determines whether the instruction shows the number of tablets to take or the number of mg to take each day. For example:

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	4½	4½	4½	4½	4½	4½	4½

Dosing instruction in mg

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1½	1½	1½	1½	1½	1½	1½

Dosing instruction in tablets

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1½	1½	1½	1½	1½	1½	1½
Total mg	4½	4½	4½	4½	4½	4½	4½

Dosing instruction in tablets with total mg line (see also Show Total mg Dose line below)

If you wish to show the number of tablets and the total mg as in the example immediately above, choose tablets then check the checkbox for *Show Total Mg Instruction Line* (see explanation below).

Most sites either show all doses in mg or show all doses in tablets. If this is the case, select whichever option is appropriate then check the *Restrict to this option only* checkbox to ensure this is the only option available on a patient's treatment plan.

### Tablet Strength 1

If there is one tablet strength or combination of tablet strengths you use most commonly, choose the appropriate tablet or tablets here to have new patients and treatment plans records default to this selection. In this case, when you add a patient or a new treatment plan you only have to change the tablet setting if the patient requires a different strength or combination.

Leave this option blank if you do not wish tablet strengths to default. In this case, you are forced to select the appropriate tablet strength or combination every time you add a new patient or treatment plan.

If you have chosen to *Dose In* mg, only one *Tablet Strength* option is displayed. If the patient has mixed tablets, select the smallest strength. DAWN then produces dosing instructions that are achievable with any combination of tablet strengths that includes this one.

If you have chosen to *Dose In* tablets, when you select an option for *Tablet Strength 1*, a *Tablet Strength 2* drop down list is displayed. If you choose an option for *Tablet Strength 2* as well, a *Tablet Strength 3* drop down is displayed (you are limited to three strengths).

If you wish to select more than one tablet strength, choose the largest strength in the top box and the smallest strength in the bottom box (each drop down list only includes tablet strengths smaller than the one selected in the drop down list above).



**HINT**

If you select more than one tablet strength, DAWN produces instructions that show how to achieve the dose with the combination of tablets, for example:

+	-	Sun	Mon	Tue	Wed	Thu	Fri	Sat
<b>Coumadin</b>								
Pills (5 mg) ..		1	1	1	1	1	1	1
Pills (2½ mg)			1		1		1	

Dosing instruction using two tablet strengths (without the Total mg line - see Show Total Mg Dose Line below)

**Please note:** If you select a single tablet strength as a default, this does not prevent you from selecting additional tablet strengths for individual patients. Likewise if you choose a combination of two or three tablet strengths as the default setting, you can restrict this to a single strength for individual patients.

**TIP:** If you use several brands (such as Coumadin, Barr and Jantoven) but you have roughly equal numbers of patients on each, you may decide it is best not to have a default brand. However, if you wish to set defaults for tablet strength, the brand is set automatically depending on the brand of tablet you choose (it is also easier to select tablet strengths if you choose a brand first as then only tablet strengths for that brand are displayed). In this case, select a commonly used brand (such as Coumadin) and then choose the tablet strength or strengths for that brand. When you add a new patient or treatment plan, it will default to this brand and this tablet strength or strengths. However, if you change the brand, the default tablet strengths will automatically change to the equivalent strength tablets for the new brand (providing both brands have the same tablet strengths).

Show Total  
Mg Dose  
Line

If you have chosen to *Dose In* tablets, you have the option of including an additional line showing the total number of mg too. This is useful if you are using more than one tablet strength or a tablet strength that is greater than 1.

+	-	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Coumadin								
Pills (5 mg) ..		1	1	1	1	1	1	1
Pills (2½ mg)		1						
Total mg		7½	5	5	5	5	5	5

The Show Total Mg Dose Line option is disabled if you have chosen to *Dose In* mg.

Switching the Total Mg Dose Line on by default does not prevent you from switching it off for certain patients (and vice versa).

Use Patient  
Tablet  
Options by  
default

Check this checkbox to have new Patients and Treatment Plans use *Customised Tablet Options* by default. With this setting selected, DAWN generates dosing instructions dynamically using the settings on the patient's treatment plan. These default to the values you specify in the fields above but can be changed for each patient individually.

Dosing and Tablet Options

☐ Use Dosing Regime? (None selected)

☒ Use Customised Tablet options?

**Anticoagulant:** Warfarin **Record Dose As:** Daily Average

**Brand:** UK Generic **Split Tablet Into:** Whole Tablet

**Tablet Strength:** Pills (3 mg)

**Tablet Strength:** Pills (½ mg)

**Show Total mg Dose Line** Yes **Dose In** Tablets

ⓘ You can't edit Patient Tablet Options when there is an INR / dose that has not yet been authorised for this treatment plan.

Uncheck this box to have *Use Dosing Regime* as the default option. In this case, DAWN ignores the patient specific settings and looks up preset instructions for a given combination of anticoagulant, tablet strength etc determined by the dosing regime you select. See Patient Tablet Options and Dosing Regimes - Basic Concepts for more details.

Zero Dose  
Message

Insert the message you want DAWN to display in place of a dosing instruction if the dose is zero.

If you do not want an instruction to be displayed when the dose is zero, leave this field blank.

If you want to include the name of the anticoagulant in the message, for example "Take no warfarin", use the placeholder `##anticoagulant name##`, for example "Take no `##anticoagulant name##`". The placeholder is replaced with the appropriate anticoagulant for the patient so, in this example, a zero dose for a patient on warfarin would say "Take no warfarin" while a zero dose for a patient on phenindione would say

"Take no phenindione".

## 19.7 Setting Up Regimes and Instructions

The following sections show how the Regime and Instruction tables are set up.

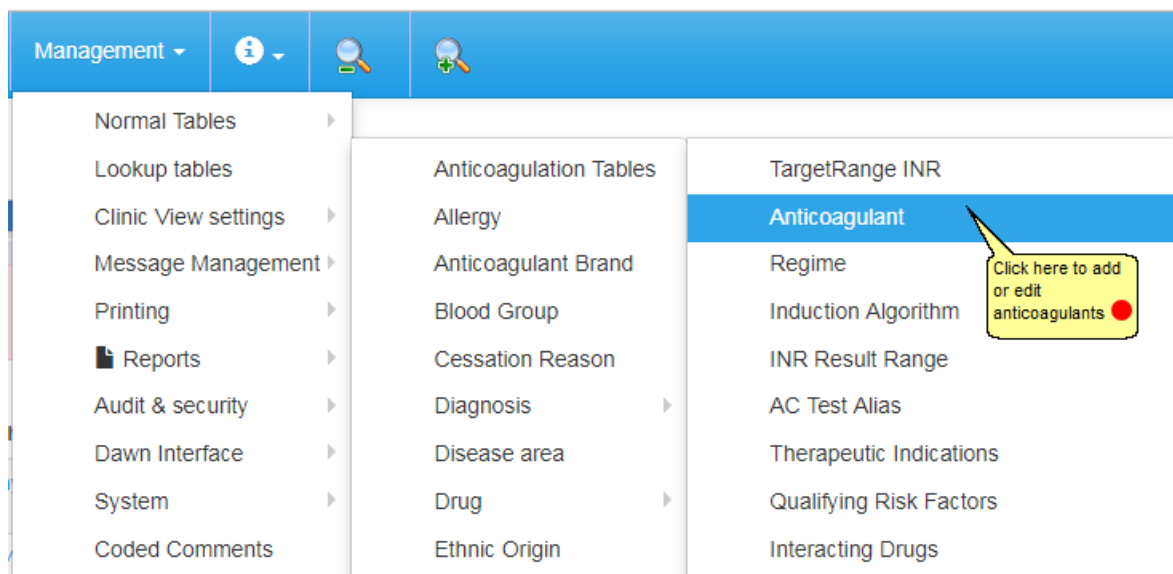
Anticoagulants

AC Brands

Tablet Strengths

Activating, Deactivating and Maintaining Regimes

### 19.7.1 Anticoagulants



Each Anticoagulant can have one or more dosing regimes. A dosing regime is a set of instructions showing how to achieve any average daily or total weekly dose with a particular tablet strength or strengths.

Once you have recorded doses for a patient using a particular dosing regime, you can only change their dosing regime to another regime for the same anticoagulant. This is because the doses of different anticoagulants such as warfarin and Phenindione are not directly equivalent. To change a patient's anticoagulant, stop their current treatment plan and start a new one.

19.7.1.1 List of Anticoagulants

Anticoagulant ✕

DescriptionWarfarin

Notes

Dose Unitsmg

Add a new record → Tablets

Caption	AltText	In Use
Barr (USA) (Warfarin)		
Pills 1 mg .	Pink	<input checked="" type="checkbox"/>
Pills 2 mg .	Lavender	<input checked="" type="checkbox"/>
Pills 2½m.	Green	<input checked="" type="checkbox"/>
Pills 3 mg .	Brown	<input checked="" type="checkbox"/>
Pills 4 mg .	Blue	<input checked="" type="checkbox"/>
Pills 5 mg .	Peach	<input checked="" type="checkbox"/>
Pills 6 mg .	Blue Green	<input checked="" type="checkbox"/>
Pills 7½m.	Yellow	<input checked="" type="checkbox"/>
Pills 10 mg	White	<input checked="" type="checkbox"/>

Description

Warfarin

Phenindione

Acenocoumarol

Phenprocoumon

Dindevan

Fluindione

Bishydroxycoumarin

COUMADIN

Dabigatran

Old

Rivaroxaban

Newfarin

Warf

Dabigatran 110mg

Click Edit to unlock the form

Click OK and then Click edit again

OK

19.7.1.2 Edit warning

WARNING !

You are about to alter data in tables that are used by the Dosing-engine:

- Inadequate settings in these tables can lead to severe injury and death.
- Read the Safety Section in the User Manual.
- By using this software the user is bound by the terms of the Software Licence and Maintenance agreement and Customer Obligations document.

Press the edit-button again to accept these terms and to edit the data...

OK

Click OK and then Click edit again

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### 19.7.1.3 Creating a New Anticoagulant Record

Anticoagulant ✕

**Description**

**Notes**

**Dose Units**

[Add a new record](#) → [Tablets](#)

Caption	AltText	In Use
<b>Barr (USA) (Warfarin)</b>		
Pills 1 mg .	Pink	<input checked="" type="checkbox"/>
Pills 2 mg .	Lavender	<input checked="" type="checkbox"/>
Pills 2½m.	Green	<input checked="" type="checkbox"/>
Pills 3 mg .	Brown	<input checked="" type="checkbox"/>
Pills 4 mg .	Blue	<input checked="" type="checkbox"/>
Pills 5 mg .	Peach	<input checked="" type="checkbox"/>
Pills 6 mg .	Blue Green	<input checked="" type="checkbox"/>
Pills 7½m.	Yellow	<input checked="" type="checkbox"/>
Pills 10 mg	White	<input checked="" type="checkbox"/>

Click new to add a new anticoagulant

⏮ ⏪ ⏩ ⏭ New Delete Save List Print ↺

1. Enter the name of the Anticoagulant in the Description field. If you try to save the record without typing a name in the Description field, a message box informs you that the Description is required and you are returned to the form with the Description field highlighted.
2. Enter the DoseUnits (e.g. mg) the Anticoagulant is normally prescribed in. This field is mandatory as it is used directly in creating dosing instructions if the instruction is expressed as the number of tablets to take but an additional line is included showing the total dose that makes. The total is shown in the dose units entered here, e.g. "Total mg".
3. Enter any notes about the Anticoagulant in the Notes field. The notes are not required and you can save an anticoagulant record without entering any notes.
4. Enter an Order number for the new Anticoagulant. This field is required (so you cannot save the record without entering it). It controls where in the list the new Anticoagulant appears. The item with the lowest order number appears at the top of the list. The number defines the order of the Anticoagulant drop down list box displayed in the setup screen for related records such as dosing regimes and the order in which the records are displayed in Anticoagulant Look Up Table list used to select and edit anticoagulant records.

5. Check the InUse checkbox to include this record in the drop down list of selectable anticoagulants displayed in the Regime set up form. Uncheck this box to remove the anticoagulant from the drop down list.
6. Enter the Maximum Daily Dose that would be given for a patient on this anticoagulant. This is used as a safeguard against transcription error when entering numeric doses manually.

### 19.7.1.4 New anticoagulant form

The screenshot shows a web form titled 'Anticoagulant' with a close button (X). The form contains the following fields and instructions:

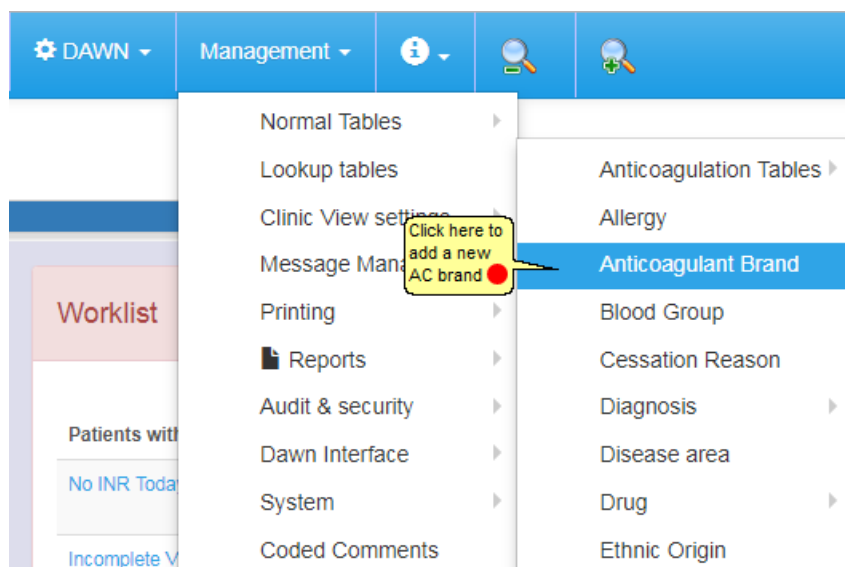
- Description:** A text input field with a callout: 'Enter a description'.
- Notes:** A large text area with a callout: 'Enter any notes'.
- Dose Units:** A text input field with a callout: 'Enter the DoseUnits (e.g. mg) the Anticoagulant is normally prescribed in.'.
- Non Vitamin K Antagonist:** A checkbox with a callout: 'Check this box if this is a non vitamin K antagonist'.
- Order:** A text input field containing '120' with a callout: 'Enter an order number'.
- In Use:** A checkbox that is checked, with a callout: 'Make sure the in use box is checked to include this record in the drop down list of selectable anticoagulants displayed in the Regime set up form. Uncheck this box to remove the anticoagulant from the drop down list.'
- Maximum Daily Dose:** A text input field with a callout: 'Enter the maximum daily dose'.

Below the form, there is a message: 'You will need to save this new record before you can add related records'. At the bottom, there are 'OK' and 'Cancel' buttons, and a red dot with a callout: 'Click OK to save'.

### 19.7.2 AC Brands

In some regions such as the USA, there are a number of different brands of certain anticoagulants. For example, Coumadin, Jantoven and Barr warfarin are all different makes of warfarin. In some cases, patients know their anticoagulant by the brand name rather than the generic name, for example "Coumadin" rather than "warfarin".

If a patient changes their insurance they may be obliged to move to a different brand. If you set up Coumadin and Jantoven as different anticoagulants you would not be able to move a patient between Coumadin and Jantoven dosing regimes without starting a new treatment plan even though, in this case, the doses are directly equivalent. Instead, DAWN AC allows you to set up different brands of an anticoagulant.



1. Create a record for each anticoagulant brand you wish to use. These can be generic for a region such as "UK warfarin" or identify individual brands available in a particular region such as Coumadin, Jantoven and warfarin in the USA. Use the display name to record the brand name as you wish it to appear on a dosing instruction
2. You can associate a dosing regime with a particular brand so you could have a Coumadin, a Jantoven and warfarin dosing regime for the same tablet strength. As these regimes are all for the same Anticoagulant record (warfarin) you can swap between them at any stage in a patient's treatment.
3. If you associate a regime with a particular brand, the formatted dosing instructions show the brand display name. If no brand is associated with a regime, the anticoagulant name is displayed on formatted dosing instructions.












### 19.7.2.1 List of AC brands

Anticoagulant Brand ✕

Search 🔍

Search for:      Name            Display Name     

Name	Display Name
 UK Generic	Warfarin
 Coumadin (USA)	Coumadin
 Jantoven (USA)	Jantoven
 Barr (USA)	Warfarin
 Taro (USA)	Warfarin
 USA Generic	Warfarin
 Sinthrome	Sinthrome
 Dindevan	Dindevan
 Phenindione (generic)	Phenindione

Click on New to add a new brand

⏮ ⏭ ⬇ Down ⚙ New ⬇ Save 🖨 Print ↺

### 19.7.2.2 Creating an AC Brand

Anticoagulant Brand ✕

Name

Display Name

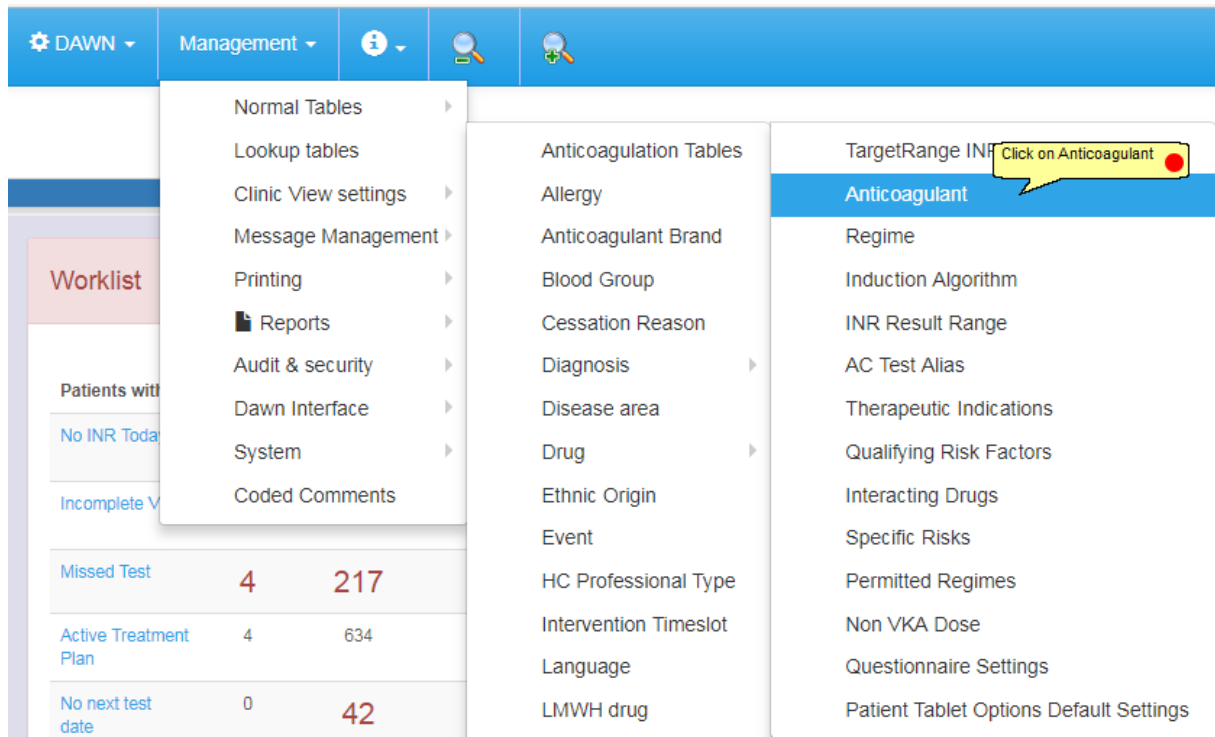
You will need to save this new record before you can add related records

You will need to save this new record before you can add related records

Click OK to save this brand

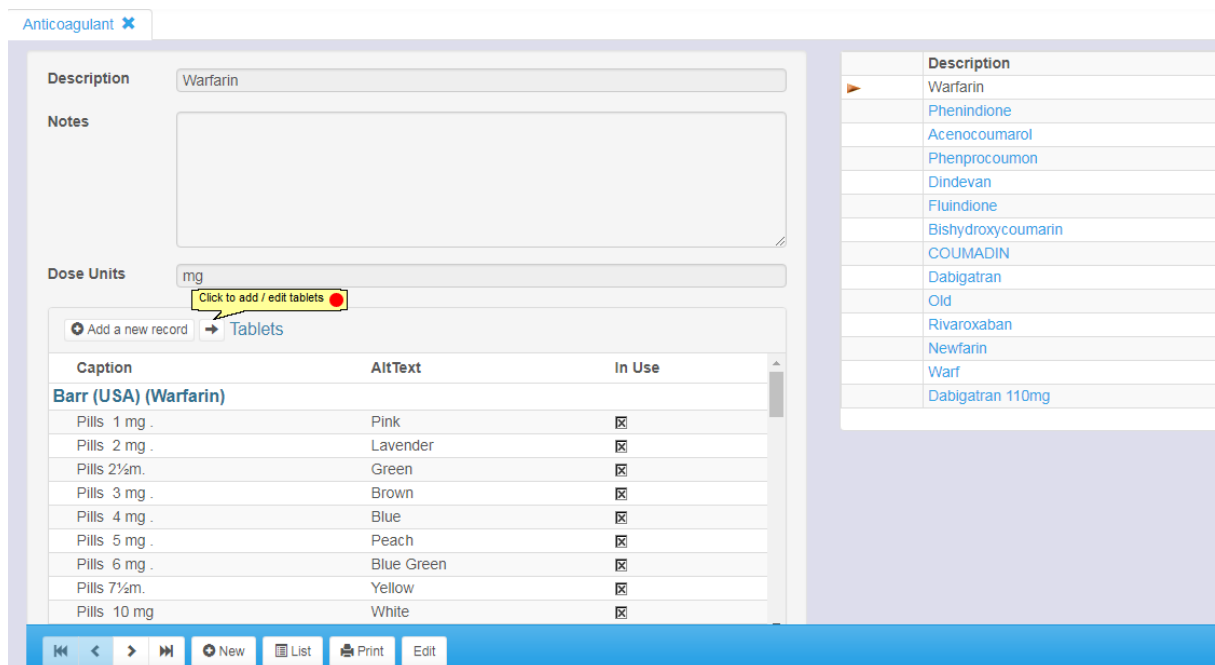
✓ OK ✕ Cancel

### 19.7.3 Tablet Strengths



#### 19.7.3.1 List of Anticoagulants and Tablets

If an anticoagulant is available in different tablet strengths, you can define a Tablet record for each tablet strength.



By default the tablets are sorted by Brand (Region) then by size. You can also choose to sort them by Size.

Please note, for non-vitamin K antagonists (like Dabigatran, Rivaroxaban, etc) please see section on New Oral Anticoagulants for dose settings.

For heparin bridging doses see Scenario: Bridging Therapy

### 19.7.3.2 Adding / Editing Tablets










Anticoagulant: Warfarin > AnticoagulantTablet

Search

Sorting:

Search for:

**Barr (USA) (Warfarin)**

	TabletSize	Caption	AltText	Notes	In Use	Image
<input type="checkbox"/>	1.00	Pills 1 mg .	Pink		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	2.00	Pills 2 mg .	Lavender		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	2.50	Pills 2½m.	Green		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	3.00	Pills 3 mg .	Brown		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	4.00	Pills 4 mg .	Blue		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	5.00	Pills 5 mg .	Peach		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	6.00	Pills 6 mg .	Blue Green		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	7.50	Pills 7½m.	Yellow		<input checked="" type="checkbox"/>	
<input type="checkbox"/>	10.00	Pills 10 mg	White		<input checked="" type="checkbox"/>	

Click on New to add a new tablet

Navigation:

### 19.7.3.3 Creating a Tablet Strength record

AnticoagulantTablet

Anticoagulant: Warfarin > AnticoagulantTablet: (New record)

Brand: (None selected)

TabletSize:

Caption:

AltText:

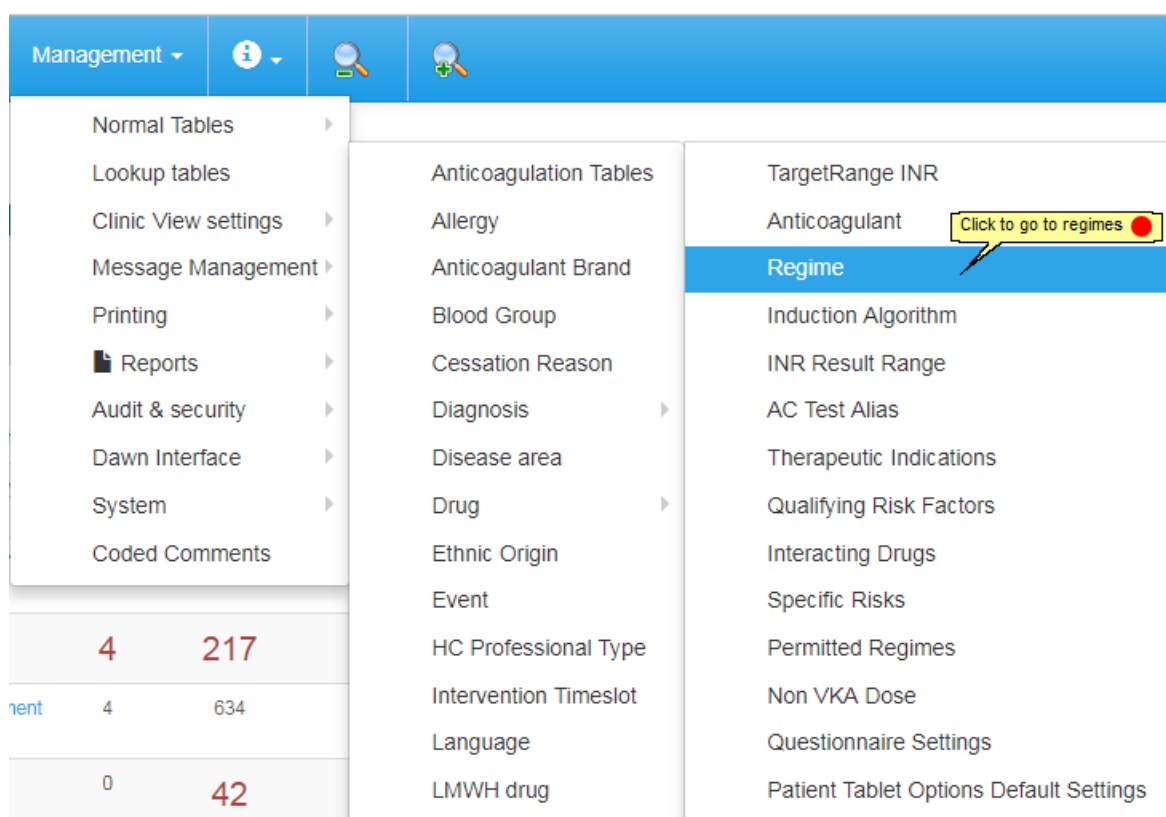
Notes:

In Use: ☒

Image:  No file chosen

Click OK when finished

## 19.7.4 Activating, Deactivating and Maintaining regimes



### 19.7.4.1 List of regimes

Before you can use a new regime, you must activate it. If you then need to make changes to it, you must change its status to "In Maintenance". If you no longer wish to use a regime, you can Deactivate it. The following sections explain these workflow states and describe how to move from one to another.

**NB** altering or marking a setting in DAWN as not in use may cause unexpected behaviour when dosing or issuing instructions from your DAWN system. Please test thoroughly after any change.

record 1 - 50 / 103 →

Description	Record Dose As	Status
Fluindione 20mg	Daily Average	New
Mg Sinthrome (weekly)	Weekly Total	New
Mg Warfarin (weekly)	Weekly Total	In Maintenance
New Low Dose (w Or Sin)	Daily Average	Active
NEW Phenindione Mixed MG (in Mg / Daily Avg)	Daily Average	Active
newspanish	Weekly Total	New
No tablet pics	Daily Average	Active
old Dabigatran 110mg bd	Daily Average	In Maintenance
Phenindione	Daily Average	New
Phenindione 25 mg Half Tablets/ Daily Avg	Daily Average	Active
Phenindione 25 mg Whole Tablets/ Daily Avg	Daily Average	Active
Phenindione 5mg increments	Daily Average	Active
Phenindione Mg Daily (10mg)(m)	Daily Average	New
Phenindione Mg Daily (25mg)(m)	Daily Average	New
Phenindione Mg Daily (50mg)(m)	Daily Average	New
Phenindione Mixed Tablets (in Mg / Daily Avg)	Daily Average	Active
rin Mixed Tablets (plain text / Daily Avg) (Clone)	Daily Average	In Maintenance
Rivaroxaban 10 mg Once Daily	Daily Average	Active
Rivaroxaban 15 mg Once Daily	Daily Average	Active
Rivaroxaban 15 mg Twice Daily	Daily Average	Active
Rivaroxaban 20 mg Once Daily	Daily Average	Active
Sinthrome	Daily Average	Active
Sinthrome Mixed Tabs (plain text / Daily Avg)	Daily Average	Active
Warfarin 0.5mg with Halves	Daily Average	New
Warfarin 1 and 3mg Whole Tablets Daily (Clone)	Daily Average	Active

Click on the  
regime to be  
activated

### 19.7.4.2 Enter the unlock password

Regime ✕

This table is password protected. Please contact 4S Information Systems for password.

🔒 Password:

Enter the password you were given by 4S DAWN

Description

Mg Sinthrome (weekly)

Code Name

SINMGW

Anticoagulant

Acenocoumarol ▾ ➔

Brand

(None selected) ▾

Status

New

Record Dose As ⓘ

Weekly Total

Dose Units ⓘ

Mg

Split Tablet Into

Whole tablet

Tablet Strength 1

(None selected) ▾

Max Step Between Instructions

mg per

Week

Max Dose Increment

Clone Regime

Instructions

Defaults for New Instructions

➔

Instruction 1 - 50 / 175

### 19.7.4.3 Make the regime editable

Regime ✕

Description

Mg Sinthrome (weekly)

Code Name

SINMGW

Anticoagulant

Acenocoumarol ▾ ➔

Brand

(None selected) ▾

Status

New

Record Dose As ⓘ

Weekly Total

Dose Units ⓘ

Mg

Split Tablet Into

Whole tablet

Tablet Strength 1

0.00

(None selected) ▾

Max Step Between Instructions

5

mg per

Week

Max Dose Increment

5

Clone Regime

Instructions

Defaults for New Instructions

⏮ ⏪ ⏩ ⏭

New

List

Print

Edit

Click edit

### 19.7.4.4 Editing warning



#### WARNING !

You are about to alter data in tables that are used by the Dosing-engine:

- Inadequate settings in these tables can lead to severe injury and death.
- Read the Safety Section in the User Manual.
- By using this software the user is bound by the terms of the Software Licence and Maintenance agreement and Customer Obligations document.

Press the edit-button again to accept these terms and to edit the data...

OK

Click OK

### 19.7.4.5 Confirm editing is required

Regime ✕

Description	Mg Sinthrome (weekly)		
Code Name	SINMGW		
Anticoagulant	Acenocoumarol	▼	→
Brand	(None selected) ▼		
Status	New		

Record Dose As ⓘ	Weekly Total	Dose Units ⓘ	Mg
Split Tablet Into	Whole tablet		
Tablet Strength 1	0.00	(None selected) ▼	
Max Step Between Instructions	5	mg per	Week
Max Dose Increment	5	<a href="#">Clone Regime</a>	

[Instructions](#)
[Defaults for New Instructions](#)

[⏮](#)
[⏪](#)
[⏩](#)
[⏭](#)
[New](#)
[List](#)
[Print](#)
[Edit](#)

Click edit again to activate, maintain or deactivate the regime

#### 19.7.4.5.1 Activating a regime

Regime ✕

Description	Mg Sinthrome (weekly)		
Code Name	SINMGW		
Anticoagulant	Acenocoumarol	▼	→
Brand	(None selected) ▼		
Status	New		

[Click activate](#)
[Activate](#)
[Deactivate](#)

##### 19.7.4.5.1.1 Confirm activation

Are you sure you want to perform the action 'Activate' on record 'Mg Sinthrome (weekly)'?

You can give a short explanation in the text-field below (optional)

Enter details or just click OK to activate the regime

[ OK ] [ Cancel ]



## 19.7.4.5.2 Deactivating a Regime

The screenshot shows a 'Regime' form with the following fields: Description (Mg Sinthrome (weekly)), Code Name (SINMGW), Anticoagulant (Acenocoumarol), Brand ((None selected)), and Status (Active). A yellow callout bubble with a red dot points to the 'Deactivate' button, with the text 'Click deactivate'.

Once a Regime is Deactivated, none of its instructions can be used to dose a patient.

## 19.7.4.5.3 Maintaining a Regime

The screenshot shows the same 'Regime' form as above. A yellow callout bubble with a red dot points to the 'Maintain' button, with the text 'Click to maintain the regime'.

Once a Regime is In Maintenance, none of its instructions can be used to dose a patient.

## 19.7.4.6 Regime Work Flow States

Dosing Regimes have the following workflow states:

Status	Implications
1. New	<p>Initial status.</p> <ul style="list-style-type: none"> <li>a) Regimes that are <i>New</i> do not appear in the Regime selection list on the Treatment plan form.</li> <li>b) <i>New</i> regimes have never been activated so they have never been available for selection. Consequently no patients are ever on <i>New</i> regimes.</li> <li>c) Settings for <i>New</i> regimes and their instructions can be altered.</li> </ul>
2. Active	<p>In use.</p> <ul style="list-style-type: none"> <li>a) <i>Active</i> regimes appear in the selection list on the Treatment Plan.</li> <li>b) Instructions for <i>Active</i> regimes can be used in Dosing patients</li> <li>c) Settings for <i>Active</i> regimes and their instructions cannot be altered</li> </ul>

### 3. In Maintenance      Being Edited

- a) Regimes *In Maintenance* do not appear in the Regime selection list on the Treatment plan form.
- b) Patients may already be on a regime when its status is changed to *In Maintenance*. In this case, the instructions cannot be used while the Regime is *In Maintenance*.
- c) If you attempt to dose a patient on a Regime that is *In Maintenance* an "ERROR: The regime is currently not Active. It cannot be used" warning is displayed in place of the instruction.
- d) Settings for Regimes *In Maintenance* and their instructions can be altered.

### 4. Deactivated      Not In Use

- a) *Deactivated* Regimes do not appear in the Regime selection list on the Treatment plan form.
- b) Patients may already be on a regime when it is *Deactivated*. In this case, the instructions cannot be used while the Regime is *Deactivated*.
- c) If you attempt to dose a patient on a *Deactivated* Regime an "ERROR: The regime is currently not Active. It cannot be used" warning is displayed in place of the instruction.
- d) Settings for *Deactivated* Regimes and their instructions can be altered.

## 20 Enforcing Mandatory Use of the NHS Number

1. Overview
2. Switching on NHS Number Compliance
3. Changes to the Patient Screen when you Enforce Compliance
4. Changes to the New Patient Wizard when you Enforce Compliance
5. Changes to the Patient Search Screen
6. Patient Identifiers in Screen Titles
7. Restricting Who Can Change the NHS Number Status

### 20.1 Overview

In the UK, the National Health Service (NHS) has issued two Data Set Change Notices, DSCN 32/2008 & 31/2003, mandating use of the NHS number and setting out rules for how it should be stored, displayed and reported in electronic medical record systems.

To switch on Validate and Verify Only or Full compliance, open the NHS Number Compliance Control Panel as described in the section Switching on NHS Number Compliance

### Key Principles

There are four key principles that apply when you enforce mandatory use of the NHS Number:

<b>Validation</b>	When you enter an NHS number, it must be checked to ensure it is valid. Valid numbers are 10 characters long and only contain digits. The tenth digit is a check digit which is used to confirm whether the preceding 9 digits comprise a valid NHS number using a modulus 11 algorithm. When you switch on compliance, DAWN automatically applies these validation checks whenever you enter or amend an NHS number. The system does not allow you to save an invalid number.
<b>Format</b>	The number can be entered with or without spaces but is reformatted when saved to ensure it is always stored, displayed and output in 3 3 4 format, e.g. 012 345 6789
<b>Verification</b>	<p>Verification is the process of using the NHS tracing service to verify that a given NHS number is the correct number for a particular patient. You cannot trace a number directly from DAWN, it is envisaged that you will do this through your central Patient Administration System. However, you must record the verification status of each patient's NHS number in DAWN. There are 8 possible statuses:</p> <ul style="list-style-type: none"><li>01 - Number present and verified</li><li>02 - Number present but not traced</li><li>03 - Trace required</li><li>04 - Trace attempted - no single match</li><li>05 - Trace needs to be resolved</li></ul>

- 06 - Trace in progress
- 07 - Number not present and trace not required
- 08 - Trace postponed (baby < 6 weeks old)

By default, DAWN sets the NHS number verification status to "02 - Number present and not traced", where the DAWN patient record has an entry for NHS number, and "03 - Trace required", where it does not.

Providing you have the appropriate User Profile permissions, you can change the NHS number status by selecting the relevant option from a drop down list. By default, everyone who is permitted to edit patient records can change the NHS number status, but your system administrator can remove this permission for certain groups of users.

If DAWN is interfaced with your Patient Administration System, the NHS number and verification status can be added and updated automatically via the interface.

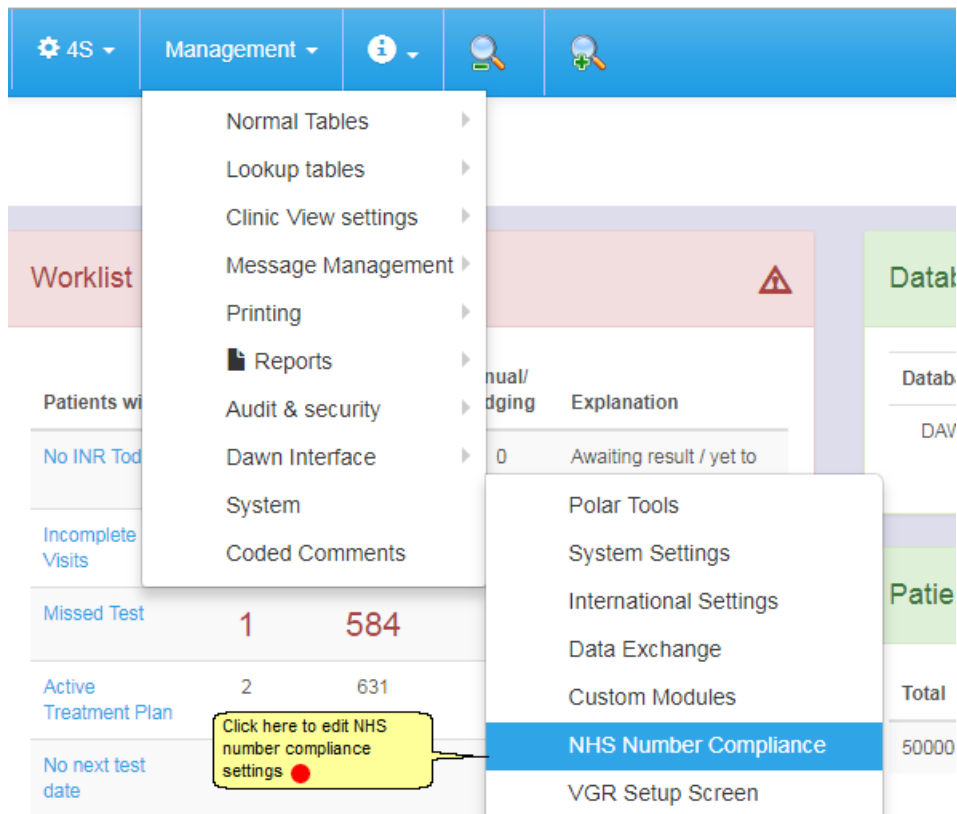
### Output

To comply strictly with the directive, all electronic and hard copy output, printed letters, reports, emails, faxes and electronic interface updates that include patient demographic information should include the NHS number, but only where it's verification status is "01 - Number present and verified". When full compliance is enforced, DAWN automatically suppresses the NHS number on any letter, report or outbound interface message, where the verification status is not "01 - Number present and verified".

### Validate and Verify Only Compliance

DAWN does include a "half-way house" option between no compliance and full compliance. This option, called Validate and Verify Only applies the first three principles but not the fourth. This is aimed primarily at sites upgrading from earlier versions of DAWN who have NHS numbers recorded for the majority of patients and already include the NHS number on letters, reports or outbound interface messages. When you upgrade, the verification status for all existing NHS numbers defaults to "02 - Number present but not traced". If you go straight to full compliance, you will lose the ability to include the NHS number on all such output for each patient until you change their verification status to "01 - Number present and verified". If you are making these updates without the aid of an interface, this process may take some time. On the other hand, leaving compliance switched off prevents you from recording the verification status (this option is hidden) and disables automatic validation and reformatting of any numbers you enter. Validate and Verify only allows you to update each patient's verification status and apply validation and reformatting without suppressing the NHS number on all output. You can switch to full compliance later, when all your patients have the correct NHS number verification status recorded.

## 20.2 Switching on NHS Number Compliance



## 20.3 NHS number compliance Settings

NHS Number Compliance Control Panel

**NHS**

**NHS Number Compliance**

When you enforce NHS Compliance (Validate & Verify Only or Full Compliance), DAWN makes the following changes:

- The National Number caption (currently shown as NHS Number) is changed to NHS No
- A drop down list of verification states is displayed below the NHS Number. The default status is either:
  - Number present but not traced
  - Trace Required
- The NHS Number appears in the title of the Patient screen and on the patient search screen.
- If your Mandatory Patient Identifier is set to MRN (recommended), the MRN also appears in the screen title.

**On entry or edit:**

- The NHS Number is checked to ensure it is a valid NHS Number. Invalid numbers are rejected.
- The NHS Number is formatted in 3 3 4 format

**When searching for a patient:**

- You can enter the NHS number with or without spaces.

When you turn on NHS No compliance, NHS numbers that are already in DAWN are only validated and formatted when you edit the number or change its verification status.

**When you switch on Full compliance, DAWN makes one additional change:**

- The NHS Number only appears in reports, letters, emails or outbound interface messages once you change the status to Number present and verified

**Read all the information on this page carefully before changing this setting.**

Enforce NHS Number Compliance: No

Mandatory Patient Identifier: MRN

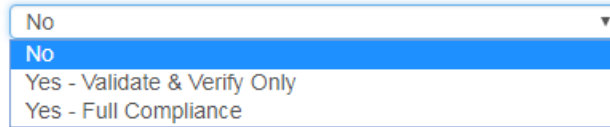
**Important Note**

If you enforce NHS Number compliance, we recommend you set the MRN as the Mandatory Patient Identifier. If you make the NHS Number mandatory you will not be able to add new patients unless you can enter valid NHS Numbers for them straight away.

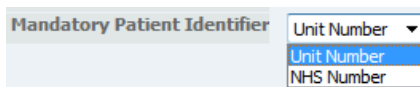
1. Read all the information on the page carefully to ensure you understand the implications of switching on NHS number compliance and that you know which level of compliance will best serve your current needs. For more information on the difference between Full Compliance and Validate & Verify Only, see Key Principles in the Overview section of this Topic

- Click on the drop down list of Enforce NHS Number Compliance options. The following options are displayed:

**Enforce NHS Number Compliance**



- Select the appropriate level of compliance from the drop down list.
- Check the mandatory patient identifier is set to the appropriate setting.




**HINT**

Please note, if your system is configured to display the unit number on screen with a different caption such as "MRN" or "Hosp Number", the drop down list and help text displays your caption.

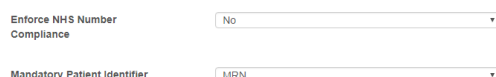
We advise making the unit number (i.e. MRN, Hospital number) the mandatory patient identifier rather than the NHS number because you cannot save a patient record without an entry for the mandatory patient identifier. If you do not know a patient's unit number, when you add them to DAWN, you can put in a placeholder such as "NK". However, once you enable either level of NHS number compliance, you are prevented from saving an NHS number that fails the validation checks, which means you have to enter a valid number or leave the field blank. If you make the NHS number the mandatory patient identifier, you remove the option to leave it blank and fill it in later, which means you cannot add a patient unless you have their NHS number.

This setting is the same as the PatientUnitOrNationalNumber setting under System Settings (they are two views of the same setting so changing it in one place inextricably changes it in the other).

- Click OK to apply your changes.

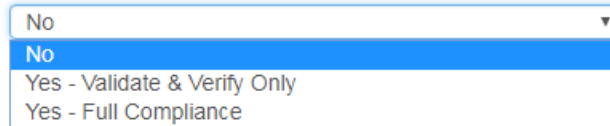
## 20.4 NHS number compliance options

Read all the information on the page carefully to ensure you understand the implications of switching on NHS number compliance and that you know which level of compliance will best serve your current needs. For more information on the difference between Full Compliance and Validate & Verify Only, see Key Principles in the Overview section of this Topic



**Important Note**

If you enforce NHS Number compliance, we recommend you set the MRN as the Mandatory Patient Identifier. If you make the NHS Number mandatory you will not be able to add new patients unless you can enter valid NHS Numbers for them straight away.

**Enforce NHS Number  
Compliance**A screenshot of a dropdown menu for the 'Enforce NHS Number Compliance' setting. The menu is open, showing four options: 'No' (selected and highlighted in blue), 'Yes - Validate & Verify Only', and 'Yes - Full Compliance'. The 'No' option is currently selected.**HINT**

Please note, if your system is configured to display the unit number on screen with a different caption such as "MRN" or "Hosp Number", the drop down list and help text displays your caption.

We advise making the unit number (i.e. MRN, Hospital number) the mandatory patient identifier rather than the NHS number because you cannot save a patient record without an entry for the mandatory patient identifier. If you do not know a patient's unit number, when you add them to DAWN, you can put in a placeholder such as "NK". However, once you enable either level of NHS number compliance, you are prevented from saving an NHS number that fails the validation checks, which means you have to enter a valid number or leave the field blank. If you make the NHS number the mandatory patient identifier, you remove the option to leave it blank and fill it in later, which means you cannot add a patient unless you have their NHS number.

This setting is the same as the PatientUnitOrNationalNumber setting under System Settings (they are two views of the same setting so changing it in one place inextricably changes it in the other). Click OK to save.

A screenshot of the bottom of a settings window. It features three buttons: 'OK' with a checkmark icon, 'Cancel' with an 'X' icon, and 'Click OK to save' with a red dot icon. The buttons are set against a blue background.

## 20.5 Changes to the Patient Screen when you Enforce Compliance

Graph
History
Personal
Treatment plans
Questionnaires
Test Results
Interface Warnings

Contact info
Next of kin
Clinical
Owners
Account
Audit

Personal and Address

Contact (main)

PAEDIATRIC PATIENT


Last name
ADAMS
First name
Julie
Age
11
MRN
H23023
NHS Number ⓘ
012 345 6789
NHS Number status ⓘ
Number present but not traced
Address 1
39 MAES YR & HAF
Address 2
Town
LEEDS & District
County
LLANELLI
Post Code
Sex
Female
Title
Mrs
Dateofbirth
01/08/2006
Date of Death
Ethnic origin
(None selected)
Language
Spanish

Click to see the list of options

Where the NHS number is blank, the default status is "Trace required". Where the NHS number has an entry the default status is "Number present but not traced".

### When you enter or amend an NHS number:

- DAWN checks whether the number you entered is valid. If your entry does not pass the validation check, the system displays an error message and prevents you from saving the invalid number.

 The NHS Number is not valid.

OK

- If your entry is valid, DAWN reformats the number in 3 3 4 format and updates the status to "Number present but not traced"



NHS Number	<input type="text" value="012 345 6789"/>
NHS Number status	<input type="text" value="Number present but not traced"/>

- If you have the relevant User Profile permissions you can change NHS number (verification) status by selecting a different option from the list. The most common reason for changing the status is to confirm that the NHS number has been traced and verified as the correct number for this patient, by changing their NHS number status to "Number present and verified".

## 20.6 NHS number compliance dropdown options

NHS Number ⓘ	<input type="text" value="012 345 6789"/>
NHS Number status ⓘ	<input type="text" value="Number present but not traced"/>
Address 1	Number present and verified
Address 2	Number present but not traced
Town	Trace required
County	Trace attempted - no single match
Post Code	Trace needs to be resolved
Sex	Trace in progress
	Number not present & trace not required
	Trace postponed (baby <6 weeks old)

## 20.7 Changes to the New Patient Wizard when you Enforce Compliance

When you switch on either level of mandatory NHS number compliance, DAWN makes small changes to the patient screen.

New Patient Wizard ✕

Step 1 - Patient Details ▼ Step 2 - Treatment Plan Details ▼ Step 3 - Next Of Kin Details Step 4 - Clinical Details Step 5 - Contact Details

Last name

First name

Sex

Title

Date of birth

MRN

NHS No

NHS No status

Address 1

Address 2

Town

County

Post Code

Notes

Ethnic origin

Primary language

Home phone

Mobile phone

Work phone

Fax number

Email address

Messaging method:

Risk class

Other contact numbers

You will need to save th


Previous step Finish Cancel Next step

- The national number is always displayed with the caption "NHS Number" (regardless of any entry in the PatientNationalNo\_FieldCaption system setting)
- A drop down list is displayed for NHS Number status.

For a full explanation of these fields, their defaults, interactions and the validation and reformatting that takes place on entering an NHS number, see:  
Changes to the Patient Screen when you Enforce Compliance

... which describes the same fields as they appear on the Personal Details tab of the main patient screen.

## 20.8 NHS number warnings

 The NHS Number is not valid.

OK

- If your entry is valid, DAWN reformats the number in 3 3 4 format and updates the status to "Number present but not traced"

NHS Number	<input type="text" value="012 345 6789"/>
NHS Number status	<input type="text" value="Number present but not traced"/>

- If you have the relevant User Profile permissions you can change NHS number (verification) status by selecting a different option from the list. The most common reason for changing the status is to confirm that the NHS number has been traced and verified as the correct number for this patient, by changing their NHS number status to "Number present and verified".

## 20.9 NHS number compliance and printing patient identifiers

If Full Compliance is in force, NHS numbers are suppressed on all printed letters and reports and electronic output such as emails, faxes and outbound interface messages (that would usually contain the NHS number) where the patient's NHS number status is anything other than "Number present and verified". For example:

This is a letter for a patient whose NHS number status is "Number present but not traced".

<b>Anticoagulant Monitoring Service</b>		Dawn Hospital 101 Prince Regent Rd Newcastle Upon Tyne Tyne & Wear NE11 YTG Tel: 01539563091	
Mr Hedley STEPHENSON 57 Woodman Cottages Colliery Row Towbank Co Durham, NR56 8HJ		Hosp No:	H672563
		NHS No:	
		Date of Birth:	01/07/1942
<b>Treatment Plan</b>			
Anticoagulant:	Warfarin		
Diagnosis:	ATRIAL FIBRILLATION		
Target INR Range:	2.0 - 3.0 (2.5 Target)		
Start Date:	07/07/2006		
Duration:	Indefinite		

This is an extract from the same letter for the same patient once his NHS number status has been set to "Number present and verified".

## Anticoagulant Monitoring Service

Dawn Hospital  
101 Prince Regent Rd  
Newcastle Upon Tyne  
Tyne & Wear  
NE11 YTG  
Tel: 01539563091

Mr Hedley STEPHENSON  
57 Woodman Cottages  
Colliery Row  
Towbank  
Co Durham, NR56 8HJ

Hosp No: H672563  
NHS No: 012 345 6789  
Date of Birth: 01/07/1942

### Treatment Plan

Anticoagulant: Warfarin  
Diagnosis: ATRIAL FIBRILLATION  
Target INR Range: 2.0 - 3.0 (2.5 Target)  
Start Date: 07/07/2006  
Duration: Indefinite

If mandatory NHS number compliance is not in force or *Validate and Verify Only* compliance is in force, the number is never suppressed in letters, faxes and electronic output whatever its status.

See also:

Overview  
Switching on NHS Number Compliance

## 20.10 Changes to the Patient Search Screen

When you switch on either level of mandatory NHS number compliance, DAWN makes small changes to the patient search screen.

Last name	First name	Age	MRN	NHS No	Verified	Date of Birth	Address 1	Address 2	Town	County	Post Code	Sex	Status	Home phone	Mobile phone	Work phone
ADAMS	John	59	999	012 345 6789	<input checked="" type="checkbox"/>	01/01/1959	11 SPRACKLANDS	Highgate	York	Yorks		Male	Active	015395063999		

- The National Number is always displayed with the caption "NHS No" (regardless of any entry

in the PatientNationalNo\_FieldCaption system setting).

- If your search finds one or more patients, the search results display a checkbox beside each patient's NHS number to show whether it has been verified (i.e. it has a status of 01 - Number present and Verified).
- You can type an NHS number with or without the spaces as the search value and DAWN looks for any patients with a matching number, with or without spaces. In other words, typing "0123456789" in the NHS No search field, finds any patient with "012 345 6789" or "0123456789" as their NHS number.



HINT

When you switch on compliance, any NHS number you subsequently enter is automatically formatted in 3 3 4 format, e.g. 012 345 6789. However, any numbers that were already in DAWN prior to switching on compliance are only reformatted when you next edit the number or change its verification status. This is why DAWN always searches for the number with and without spaces.



HINT

You can use the // operator in a search value to mean OR. For example, if you want to search for a patient with the first name Sid, but you are not sure whether he spells it Sid or Syd, you can type Sid // Syd in the First Name search field and DAWN will look for patients called Sid or called Syd.

When compliance is switched on and you search for an NHS number, DAWN automatically updates your search value to search for the number you entered with or without spaces. For example, if you type 0123456789 in the NHS No field and press Search, DAWN changes your search value to 0123456789 // 012 345 6789. Likewise, if you type 012 345 6789, DAWN automatically updates your search value to 012 345 6789 // 0123456789.

## 20.11 Patient Identifiers in Screen Titles

If mandatory NHS Number compliance is not in force, DAWN includes either the Unit Number (MRN, Hospital Number etc) or the National Number in the title of screens such as Patient, Treatment Plan and Treatment, depending on which is set as the mandatory patient identifier (system setting: PatientUnitOrNationalNumber).

When you switch on either level of mandatory NHS Number compliance, DAWN always includes the NHS number in the screen title for these screens, regardless of whether it is the mandatory patient identifier. It also displays the short code for the NHS number's verification status, e.g. 012 345 6789 / 01. A status of 01 means the NHS number has been verified. Any other status means the number has not been verified.

The table below shows the short codes and full descriptions for the possible NHS number statuses:

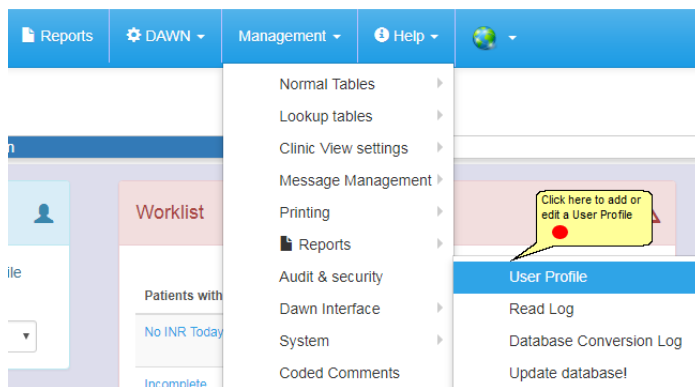
Short Code	Description
01	Number present and verified
02	Number present but not traced
03	Trace required
04	Trace attempted - no single match
05	Trace needs to be resolved

- 06 Trace in progress
- 07 Number not present and trace not required
- 08 Trace postponed (baby < 6 weeks old)

If the unit number is the mandatory patient identifier, the screen title includes both the unit number and the NHS number.


Name: TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 The Square, Milnthorpe  
 TIR%: Above Average    VGR: Above Average (max diff: 0.9)  
 Risk Class: Low  
 Pref. Clinic: Dalton Square Surgery GP (S)  
 Phone: 01539563091 - home  
 Dosing    Contacts    Letters    Drugs **1**  
 INR:  ★ ✓    Date: 19/03/24


## 20.12 Restricting Who Can Change NHS the Number Status



## 20.13 NHS number restriction in user profile

By default, all users who have permissions to add and edit patient records can change the NHS number status for a patient. However, you can remove this specific permission from certain user profiles if you so wish.

User Profile 

	Description
	System Manager
	<a href="#">AC Nurse</a>
	<a href="#">Clerical</a>
	<a href="#">IT Manager</a>

Description

System Manager

## Patient

AllowCreatePatient

AllowEditPatientData


AllowChangeRiskClass

AllowEditNHSNoVerificationStatus

AllowEditPatientOrganisations

AllowDeactivatePatient

AllowViewPatientTelAppFields

AllowedPatientTabSheets 

☒

Edit all

☒

☒ - 

Uncheck this box to prevent users with this profile from updating the NHS number status

☒

☒

☒ AllowEditPatientTelAppFields ☒

☒ Contacts

☒ Letters

☒ Drugs

☒ Events

☒ Procedures

☒ Reviews

☒ Reminders

☒ Groups

☒ Documents

☒ Graph

☒ History

☒ NextOfKin

☒ Clinical

☒ Owners





☒ Audit





☒ TreatmentPlans

☒ Questionnaires

☒ PatientResults

Click here to save the changes

 New  Delete  Save  Print

## 21 Frequently Asked Anticoagulation Questions

Some frequently asked questions are listed below. Click on the question to read the answer:

How can I undo a dose within DAWN AC?

A patient calls and wants a different next test date / time. How do I reschedule them?

I have authorised a patient dose, but I now need to change the patient's next appointment to attend another clinic. How do I do this?

A patient has had their warfarin stopped / reduced for an upcoming procedure. How do I manage their INR records?

### 21.1 How Do I Undo a Dose?

How to undo the INR or dose depends on whether you have already authorised the dose for a patient or not.

Undo Dose / INR before authorisation

Undo Dose / INR after authorisation

### 21.2 Rescheduling a Patient's Next Appointment

When DAWN books a patient into a next appointment date, it puts the patient into the first available slot within the diary.

To change the patient's next appointment date or time once a dose has been authorised, you can click on the Reschedule Manually button on their Dosing tab.

#### 21.2.1 Choosing a slot in the diary

A clinic-diary screen will be presented. You will then be able to either choose a different time slot for the same day, or click on another day block and choose a time slot for them by clicking



on the Select button.

Clinic Diary ✕

Select an appointment for TARGARYEN Daenerys (01/01/1987) # / 012 345 6789

Recommended

Recommended date Wed 17/01/2018

Recommended interval 14 days

Preferred clinic Dalton Square Surgery GP (S)

Clinic

Clinic Dalton Square Surgery GP (S)

Date 18/01/2018

Change the clinic by selecting the clinic from the drop down list

☐	Sun 14/01/2018	Mon 15/01/2018	Tue 16/01/2018	Wed 17/01/2018	Thu 18/01/2018	Fri 19/01/2018	Sat 20/01/2018
	11 (-30/-21%)	12 (-20/-14%)	13 (-10/-7%)	14 (0/0%)	15 (+10/+7%)	16 (+20/+14%)	17 (+30/+21%)

Diary for Thu 18/01/2018

From	Until	Cap. Left	Reserved cap. left	
08:00	08:15	0	1	(Select)
08:15	08:30	0	1	(Select)
08:30	08:45	0	1	(Select)
08:45	09:00	0	1	(Select)
09:00	09:15	0	1	(Select)
09:15	09:30	1	1	Select
09:30	09:45	1	1	Select

Choose the preferred time by clicking on Select

## 21.3 Changing a Patients Clinic

If the patient needs to be moved to a different clinic permanently, then their Preferred Clinic can be changed on the top left of the patient screen before following the steps below.

Patient ✕

TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 - 4 The Square, Milnthorpe

TIR% Above Average VGR Above Average (max diff. 0.9)

Dosing Contacts Letters

INR:  ★

Select a clinic from the drop down list

Risk Class Low

Pref. Clinic Dalton Square Surgery GP (S)

Phone 01539563091 - home

Age: 31

Accept INR DNA Un-schedule

Graph History Personal

Add history data

Date	INR	Dose
Thu 18/01/2018	0.0	0.00 d
Wed 03/01/2018	2.3	3.00 d

Diagnosis ATRIAL FIBRILLATION

Target Range 2.0 - 3.0

Start Date 01/10/2016 - Indefinite

Anticoagulant Warfarin 3 & 0.5mg Whole Tablets Daily

Treatment Plan < 1 > of 1 active Report

Risks

However, if the patient is only attending another clinic as a 'one-off' visit, then you can do this by following the link below.

On the patient's dosing tab, there is a 'Reschedule Manually' link. Click on this link:  
Rescheduling the next visit

## 21.4 Managing Maintenance / Induction / Bridging INRs

The maintenance therapy option in DAWN is intended for dosing patients who are already on (or close to) a stable maintenance dose. Doses added as history while on "maintenance therapy" are assumed to be maintenance doses. DAWN provides two other therapy options for patients who are not on a stable maintenance dose. These are "Induction" and "Bridging". Where a patient's warfarin is stopped or reduced for a surgical procedure there are three options for recording INRs:

- Stopping the current treatment plan and starting a new plan. DAWN disables automatic maintenance dose calculation for the first six days following the treatment plan start date which forces the healthcare professional to manually set the dose and the next test interval.

or

- Using the Induction module, designed specifically for re-initiating a patient

or

- Switching to using the bridging therapy option within the Maintenance module, which disables automatic dosing and interval calculation for all subsequent INRs until a healthcare professional deliberately switches the patient back to maintenance therapy.

To either create a new treatment plan and use induction therapy, or switch the current treatment plan therapy to bridging, you need to amend the therapy field within the patient's treatment plan screen:

Therapy

ACTherapy ⓘ

☐ Induction
☒ Maintenance
☐ Manual/Bridging

Target range

2.0 - 3.0 ▼

Induction algorithm

(None selected) ▼

Max % Dose Change ⓘ

20

Max Interval ⓘ

140

Problem Patient
☐

Recalc time in range

If the patient is on induction therapy and following an induction protocol, then the DAWN

system will prompt the user when the patient can be switched over to maintenance therapy.

If the patient is on bridging therapy, then DAWN will force the user to dose manually until the healthcare professional decides to manually move the patient back to maintenance therapy.

## 22 New Oral Anticoagulants (non-VKA) Section

### 22.1 Overview of New (Direct) Oral Anticoagulants (non-VKA, DOAC)

Features of the DAWN software to support monitoring of anticoagulation with new oral anticoagulant agents (non-vitamin K antagonists) include:

- Non-VKA list view for easy management of scheduled reviews (section 5.1)
- Integrated non-VKA history and warfarin treatment records within the patient record (section 5.2)
- Structured questionnaire approach to check for contraindications / interactions / risks (section 5.3)
- Help to follow the recommended prescribing guidelines (section 5.4)
- Powerful reporting on patient outcomes and population data (section 5.5)
- Able to provide support separately for different non-VKA agents through specifically-designed questionnaires for each agent (section 5.6)

In addition to the standard non-VKA questionnaires for Dabigatran, Apixaban etc, there is also a pair of Apixaban Audit Tool questionnaires. This integrates into the patient record and follows the same workflow as the other non-VKA agents however it is an auditing tool only and does not provide medical advice such as warning about contraindications and dose suggestion.

The Detailed Non-VKA Workflow describes the key steps for documenting a patient on DAWN.

The DAWN AC non-VKA modules provide structured questionnaires based on the recommended use of the anticoagulants and these include questionnaires for **Initiation** of anticoagulation and for routine **Follow-up**. Completion of the questionnaires can be scheduled for future dates so that the user can keep track of patients started on, or due for a change to non-VKA anticoagulation.



**This software should be seen as an aid to the Healthcare Professional. It is a condition of use that all instructions or information issued by the application are checked by a competent healthcare professional before instructing the patient.**

**Inadequate reviewing of patient instructions and the next review date could cause severe injury or death.**

Contact 4S DAWN Clinical Software for more information at [sales@4s-DAWN.com](mailto:sales@4s-DAWN.com) / [support@4s-DAWN.com](mailto:support@4s-DAWN.com)

### 22.1.1 Non-VKA list view

DAWN DOAC modules present a list of patients for review today / this week / this month.

Each patient can have Initiation or Follow-up questionnaires scheduled for future dates.

Worklist

Annual Review

Reviews

Hold Monitor Listview

In reprocessing

Non-VKA

Poor Performing Patient List

Reminders new

Phone List

Post Clinic Check

Status

No Next Test Date

Procedures

Events

Risks

Dabigatran

Treatment Notes

Referral

Filter

With Scheduled & Overdue

7 records found.

Click to see the full patient record

Name

Hospital no.

Age

Appointment

Regime

Questionnaire

Status

BILLINGS, Sarah

B29700

56

Dabigatran 75 mg Twice Daily

None Scheduled (active treatment)

HARRIS, Julie

H68899

114

Dabigatran 110mg bd

None Scheduled (active treatment)

DABIGATRAN, Lower Dose

75mgbd

89

12/08/2013

Dabigatran 75 mg Twice Daily

Dabigatran Initiation

Overdue (New treatment plan)

ADAMS, John

999

60

20/11/2014

Warfarin Mixed Tablets (plain text / Daily Avg)

Dabigatran Follow Up

Overdue (active treatment)

GREEN, Caroline

H31871

103

29/01/2015

Dabigatran 110 mg twice daily

Dabigatran Follow Up

Overdue (stopped treatment)

DABIGATRAN, Ian

DAB123

88

14/02/2017

Dabigatran 150 mg twice daily

Dabigatran Initiation

Overdue (active treatment)

DABIGATRAN, Ian

DAB123

88

20/02/2017

Dabigatran 150 mg twice daily

Dabigatran Follow Up

Overdue (active treatment)

The status shows whether a patient has no appointment scheduled, a scheduled appointment or an overdue appointment.

Please note: VTE patients treated with rivaroxaban typically start on a twice daily dose which should be reduced to a once daily dose on Day 22. You can use the List View filter for "Day 22 patients in the next 7 days" to keep track of which patients are due for a dose reduction.

The list of patients may be filtered by date of next follow-up / clinic location / risk class / patient group / diagnosis.

Click on the filters on the left of the list view screen to tailor the list you wish to view.

\*Age alert\* indicates patients over 75 on unexpectedly high dose.

Clinic may be filtered as the clinic chosen for the assessment or follow-up questionnaire (rather than the preferred clinic).

'All roles' filter for GP linked to latest treatment plan.

#### Filter Records

With ▼

Scheduled & Overdue ▼

#### Dates

(Any date) ▼

Clinic >

Therapy >

HC Professional/Team >

Patient Group >



**Note - The With / Without option top-left only applies to the top filter (Overdue in this case).**

The Patient Search and Reports screens also provide searches on your DAWN AC database for patients on different anticoagulants.

(Overview page)

(Detailed Workflow page)

## 22.1.2 Integrated non-VKA / VKA patient record

The DAWN AC patient record accommodates treatments with warfarin and non-VKAs. Each patient has a treatment plan when they start a particular anticoagulant treatment. The treatment plan defines the key elements of the treatment such as dose, duration, *etc.*

Personal

Treatment plans

Questionnaires

Test Results

Interface Warnings

Anticoagulation (AC)

active

Start date

29/01/2015

Duration

Indefinite

Target range

**non-VKA**

Anticoagulant

Dabigatran 110 mg twice daily

GP

BN290461 - Heritage V I

Consultant

LUL302 - Clark Betty

stopped

Start date

09/06/2006

Duration

Treatment stopped - Stopped at: 29/01/2015 10:53

Target range

**2.0 - 3.0**

Anticoagulant

Warfarin 1, 3 and 5 strength tablets

GP

59 GORDON ROAD - Cranson B S

Consultant

HEALTHCARE GROUP & Co - Boocock F S

Cessation Reason

Transfer to Dabigatran

For DOACs, the anticoagulation history is accessed from the 'Questionnaire' tab -

Personal

Treatment plans

Questionnaires

Test Results

Interface Warnings

Add a new record

→ 1 - 2 / 2

QuestionnaireType	Entry date	Summary
Dabigatran Follow Up	20/05/2019	Scheduled
Dabigatran Initiation	28/03/2014	CrCl: 103 mL/min (cre: 45 µM, Wt: 50 kg) - Dose: 150 mg twice daily

For VKA, the anticoagulation history is accessed from the History tab-

Graph

History

Personal

Treatment plans

Questionnaires

Test Results

Interface Warnings

Add history data

Date	INR	Dose	Dosing Instructions	Time	DNA	In range																																								
Tue 26/02/2019	0.0	0.00 d																																												
Tue 04/12/2018	2.8	1.07 d	<table><tr><th>Warfarin</th><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr><tr><td>Pills (1 mg)</td><td>1½</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Pills (3 mg)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Pills (5 mg)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Total mg</td><td>1.5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (1 mg)	1½	1	1	1	1	1	1	Pills (3 mg)								Pills (5 mg)								Total mg	1.5	1	1	1	1	1	1	12 wk		
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																							
Pills (1 mg)	1½	1	1	1	1	1	1																																							
Pills (3 mg)																																														
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ⓘ Tue 11/09/2018	2.4	1.07 d	<table><tr><th>Warfarin</th><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr><tr><td>Pills (1 mg)</td><td>1½</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Pills (3 mg)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Pills (5 mg)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Total mg</td><td>1.5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (1 mg)	1½	1	1	1	1	1	1	Pills (3 mg)								Pills (5 mg)								Total mg	1.5	1	1	1	1	1	1	12 wk		
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																							
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Pills (5 mg)																																														
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ⓘ Tue 19/06/2018	2.8	1.07 d	<table><tr><th>Warfarin</th><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th></tr><tr><td>Pills (1 mg)</td><td>1½</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr><tr><td>Pills (3 mg)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Pills (5 mg)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Total mg</td><td>1.5</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (1 mg)	1½	1	1	1	1	1	1	Pills (3 mg)								Pills (5 mg)								Total mg	1.5	1	1	1	1	1	1	12 wk		
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																							
Pills (1 mg)	1½	1	1	1	1	1	1																																							
Pills (3 mg)																																														
Pills (5 mg)																																														
Total mg	1.5	1	1	1	1	1	1																																							

### 22.1.3 Questionnaires for non-VKA therapy management

Two structured questionnaires help you record all relevant details at the time the DOAC is **Initiated** or on **Follow-up** reviews for your patient:

For illustration purposes, this DOAC section of the manual uses the Dabigatran module:

**Initiation Questionnaire** (section 5.3.1)

**Follow-up Questionnaire** (section 5.3.2)

The questions cover

- Indications and Risk Factors for each therapy
- Renal function including a calculator for Cockcroft-Gault estimate of CrCl
- Records for liver function or other tests
- Contraindicated or Interacting drugs including other anticoagulants or platelet inhibitors
- A reminder to ensure INR is not 2 or above if switching from a vitamin K antagonist
- Contraindicated conditions and Haemorrhagic Risks
- Records for CHA<sub>2</sub>DS<sub>2</sub>VASc and HASBLED scores
- Notes for planned procedures or other comments
- Dose

Coded comments can be used in all multi-line text boxes in the DOAC questionnaires

There are some site configurable options such as optionally hiding or displaying some fields,



see Configurable Options for the Non-VKA questionnaires

 **You should ensure that the questionnaire content is appropriate for the drug manufacturer's current recommendations .**

A follow-up may be scheduled for patients starting on DOAC therapy and the history for questionnaires is easily viewed on the Questionnaires tab -

Personal

Treatment plans

Questionnaires

Test Results

Interface Warnings

➕

Add a new record

➡

1 - 2 / 2

QuestionnaireType	Entry date	Summary
<div><div></div><div>Dabigatran Follow Up</div></div>	20/05/2019	Scheduled
<div><div></div><div>Dabigatran Initiation</div></div>	28/03/2014	CrCl: 103 mL/min (cre: 45 µM, Wt: 50 kg) - Dose: 150 mg twice daily

Patient details will appear on your Non-VKA list view when the date of the next follow-up is due.

(back to Overview page)


(back to Settings for Regime and Dose Settings page)

### 22.1.3.1 Initiation Questionnaire Example - Dabigatran

## Assessment as a Candidate for Dabigatran Initiation

**Patient Name:** Fitzherbert Barnaby

**Due Date:** 17/05/2019 09:30

17/05/2019 

at: 09 : 30

24hr format

**NB** Please check this appointment is made in your clinic diary or hospital administration system.

**Unit No:** F5

**to be completed at** Default Clinic

**Status** Scheduled

### Treatment Plan Summary:

**Diagnosis:** ATRIAL FIBRILLATION NON VALVULAR

**Regime:** Warfarin 1mg Strength (in Tablets / Weekly Total)

**Start Date:** 01/09/2018

**Duration:** Long Term

**Status:** active

**Notes:** Not Recorded

## Questions:

Visit Type:	<div>In Person</div>	
Therapeutic Indication:	<div>ATRIAL FIBRILLATION NON VALVULAR</div>	
Qualifying Risk Factors:	<div><div><input type="checkbox"/> Aged <math>\geq</math> 65 with diabetes mellitus, coronary artery disease or hypertension</div><div><input type="checkbox"/> Aged 75 or over</div><div><input checked="" type="checkbox"/> Left ventricular ejection fraction <math>&lt;</math> 40%</div><div><input type="checkbox"/> Previous Stroke, transient ischaemic attack or systemic embolism (SEE)</div><div><input type="checkbox"/> Symptomatic heart failure <math>\geq</math> NYHA Class 2</div></div>	
Duration of use?	<div>Long-term</div>	
Planned end date of current anticoagulant:	<div><div></div><div></div></div>	
Planned start date of Dabigatran:	<div><div></div><div></div></div>	
If switching from VKA, please enter the current INR:	<div></div>	<div><div></div><div></div></div>
is the INR $\geq$ 2?:	<div><input type="checkbox"/></div>	
Measured Creatinine Clearance:	<div></div> mL/min	<div><div></div><div></div></div>

Cockcroft-Gault estimate of CrCl:		$1.23 \times (140 - \text{Age (years)}) \times \text{Body Mass (kg)} \times (x 0.85 \text{ if female})$	
Cockcroft D, Gault MD. Nephron, 16:31-41, 1976		serum creatinine ( $\mu\text{mol/L}$ )	
Serum Creatinine:	<input type="text" value="105.00"/>	<input type="text"/>	
<input type="radio"/> US (mg/dL) <input checked="" type="radio"/> SI ( $\mu\text{mol/L}$ )			
High			
Body Weight:	<input type="text" value="65"/>	kg	<input type="text"/>
Gender:		Male	
Age (at due date):		52	
<div>Calculate Cockcroft-Gault CrCl</div>		67 mL/min	
		Mild renal impairment	
Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.			
Hepatic Impairment:		<input type="checkbox"/> Liver Enzymes > 2ULN	
Other Blood Checks:		<input type="text"/>	

These lists are for guidance only and are not exhaustive. Please use your clinical judgement before decision making. It is your responsibility to regularly check the manufacturer's recommendations for updates.

Click the link(s) below for more details on:

- [Dabigatran Tablets 75 mg](#)
- [Dabigatran Tablets 110 mg](#)
- [Dabigatran Tablets 150 mg](#)

Contraindicated Drugs:

- ☐ CICLOSPORIN
- ☐ DRONEDARONE
- ☐ ITRACONAZOLE
- ☐ KETOCONAZOLE
- ☐ TACROLIMUS

Interacting Drugs:

- ☐ AMIODARONE
- ☐ ASPIRIN
- ☐ CLARITHROMYCIN
- ☒ CLOPIDOGREL
- ☐ OTHER NSAIDs
- ☐ QUINIDINE
- ☐ TICAGRELOR
- ☐ VERAPAMIL

**CLOPIDOGREL:**  
Close clinical surveillance  
(looking for signs of bleeding or  
anaemia)

Other anticoagulant or platelet inhibitor:

- ☐ Abciximab
- ☐ Eptifibatide
- ☐ Heparin
- ☐ Prasugrel
- ☐ Sinthrome
- ☐ Ticagrelor
- ☐ Warfarin
- ☐ (Other)

If (other), please give details:

These lists are for guidance only and are not exhaustive. Please use your clinical judgement before decision making. It is your responsibility to regularly check the manufacturer's recommendations for updates.

Click the link(s) below for more details on:

- [Dabigatran Tablets 75 mg](#)
- [Dabigatran Tablets 110 mg](#)
- [Dabigatran Tablets 150 mg](#)

Other contraindications:

- ☐ Active clinically significant bleeding
- ☐ Hepatic impairment or liver disease expected to have any impact on survival
- ☐ Hypersensitivity to dabigatran etexilate
- ☐ Hypersensitivity to sunset yellow (E110)
- ☐ Organic lesion at risk of bleeding
- ☐ Prosthetic Heart Valve
- ☐ Severe renal impairment (CrCl<30ml/min)
- ☐ Spontaneous or pharmacological impairment of haemostasis

Haemorrhagic Risks:

- ☐ Active ulcerative GI disease
- ☐ Bacterial endocarditis
- ☐ Brain, spinal or ophthalmic surgery
- ☐ Congenital or acquired coagulation disorder
- ☐ Recent biopsy or major trauma
- ☐ Recent gastrointestinal bleeding
- ☒ Recent ICH
- ☐ Thrombocytopenia or functional platelet defects

Relevant medical history/other notes:

CHA<sub>2</sub>DS<sub>2</sub>-VASc score?

3

C	Congestive heart failure (or left ventricular systolic dysfunction)	1
H	Hypertension: blood pressure consistently above 140/90 mmHg (or treated hypertension on medication)	1
A <sub>2</sub>	Age ≥ 75 years	2
D	Diabetes Mellitus	1
S <sub>2</sub>	Prior Stroke or TIA or thromboembolism	2
V	Vascular disease (e.g. peripheral artery disease, myocardial infarction, aortic plaque)	1
A	Age 65-74 years	1
Sc	Sex category (i.e. female gender)	1

HASBLED score?

1: Risk was 3.4% in one study ▼

<b>H</b>	Hypertension? systolic blood pressure > 160 mmHg or uncontrolled	1
<b>A</b>	Renal Disease? (creatinine > 200 µM or > 2.6 mg/dL)	1
	Liver Disease? (cirrhosis, bilirubin > 2xULN, AST/ALT/AP > 3xULN)	1
<b>S</b>	Stroke History?	1
<b>B</b>	Prior Major Bleeding or Predisposition to Bleeding?	1
<b>L</b>	Labile INR?	1
<b>E</b>	Age ≥ 65 years	1
<b>D</b>	Medication Usage Predisposing to Bleeding? (Antiplatelet agent / NSAIDs)	1
	Alcohol Usage History?	1

Procedures planned:

Who will follow your use of  
Dabigatran?

Anticoagulation clinic ▼

Age (at due date):

52

Key Information Summary:

Primary Indication:	ATRIAL FIBRILLATION NON VALVULAR
Gender:	Male
Age at Due Date:	52
Weight:	65 Kg
Serum Creatinine:	105.00 µmol/L
Measured Creatinine Clearance (CrCl):	Not answered
Estimated CrCl (Cockcroft Gault):	67 mL/min

Please use your clinical judgement before deciding on the most appropriate dose. It is your responsibility to regularly check the manufacturer's recommendations for updates.

Click the link(s) below for more details on:

- [Dabigatran Tablets 75 mg](#)
- [Dabigatran Tablets 110 mg](#)
- [Dabigatran Tablets 150 mg](#)

Dabigatran Dose:

Dabigatran 110 mg Twice Daily ▼

Valid dosing regimes for this indication are:

Dosing regime	Advice
Dabigatran 150 mg twice daily	Normal dose
Dabigatran 110 mg Twice Daily	Patients aged 80 or over, or at risk of bleeding

Mild renal impairment

Comments:

Status: Scheduled

Mark as complete

⚠ Information in this questionnaire is used to influence dosing and therapy decisions. Please ensure all answers are accurate and complete.

Once this screen is complete, activate a treatment plan for the chosen anticoagulant. To start dabigatran therapy, STOP any existing warfarin treatment plan and ACTIVATE a Treatment Plan for dabigatran.

(back to the Questionnaires page)



## 22.1.3.2 Follow-up Questionnaire Example - Dabigatran

## Dabigatran Follow Up

Patient Name:	Fitzherbert Barnaby	Due Date:	17/05/2019
			<div>17/05/2019  at: 00 : 00</div> <div>24hr format</div>
			NB Please check this appointment is made in your clinic diary or hospital administration system.
Unit No:	F5	to be completed at	(None selected) ▼
		Status	Scheduled

**Treatment Plan Summary:**

Diagnosis:	ATRIAL FIBRILLATION NON VALVULAR
Regime:	Dabigatran 110 mg Twice Daily
Start Date:	17/05/2019
Duration:	Long Term
Status:	active
Notes:	Not Recorded

## Questions:

Visit Type: (None selected) ▼

Therapeutic Indication: ATRIAL FIBRILLATION NON VALVULAR

Duration of use? Indefinite

Age (at due date): 52

Dabigatran Dose: Dabigatran 110 mg Twice Daily

Valid dosing regimes for this indication are:

Dosing regime	Advice
Dabigatran 150 mg twice daily	Normal dose
Dabigatran 110 mg Twice Daily	Patients aged 80 or over, or at risk of bleeding

It is your responsibility to regularly check the manufacturer's recommendations for updates. Then update the treatment plan as required

Click the link(s) below for more details on:

- [Dabigatran Tablets 75 mg](#)
- [Dabigatran Tablets 110 mg](#)
- [Dabigatran Tablets 150 mg](#)

Over the past two weeks:	
I have taken the correct dose every day	<input type="radio"/> No <input type="radio"/> Yes
I might have taken too many capsules / tablets	<input type="radio"/> No <input type="radio"/> Yes
I might have missed one or more doses	<input type="radio"/> No <input type="radio"/> Yes
I take more than 3 other medications regularly	<input type="radio"/> No <input type="radio"/> Yes
Stomach upset / burning / pain (0-9)	<input type="text" value="(Make a choice)"/>
Notes	<input type="text"/>
I have started a new medication recently	<input type="radio"/> No <input type="radio"/> Yes
Reasons for compliance problems:	<div><input type="checkbox"/> Dementia</div> <div><input type="checkbox"/> Fear of side-effects</div> <div><input type="checkbox"/> Gastroesophageal Reflux Disease</div> <div><input type="checkbox"/> Gastrointestinal Bleed</div> <div><input type="checkbox"/> Lack of information</div> <div><input type="checkbox"/> Lives alone</div> <div><input type="checkbox"/> Multiple medications</div> <div><input type="checkbox"/> Other</div> <div><input type="checkbox"/> Prescriptions from several doctors</div>

Has the patient reported any adverse event (potentially due to current anticoagulant)?:

- ☐ Anaemia
- ☐ Bruising
- ☐ Blood in stools or melaena
- ☐ Epistaxis
- ☐ Haematoma
- ☐ Menorrhagia
- ☐ Vomiting blood
- ☐ Other (Please Specify)

NB Please follow local protocol for adverse event reporting to the relevant committee / agency / company.

The image shows a YellowCard adverse event reporting form. It includes sections for Patient Details, Suspected Drug(s) / Chemical(s), Suspected Reaction(s), and Reporter Details. The form is designed for healthcare professionals to report adverse events to the Medicines Commission.

Measured Creatinine Clearance:

mL/min

## Cockcroft-Gault estimate of CrCl:

$$1.23 \times (140 - \text{Age (years)}) \times \text{Body Mass (kg)} \times (x 0.85 \text{ if female})$$

Cockcroft D, Gault MD.  
Nephron, 16:31-41, 1976

serum creatinine ( $\mu\text{mol/L}$ )

Serum Creatinine:



☐ US (mg/dL) ☒ SI ( $\mu\text{mol/L}$ )

\*

Body Weight:

kg



Gender:

Male

Age (at due date):

52

Calculate  
Cockcroft-Gault  
CrCl

mL/min

Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.

Hepatic Impairment:

☐

Liver Enzymes > 2ULN

Other Blood Checks:

These lists are for guidance only and are not exhaustive. Please use your clinical judgement before decision making. It is your responsibility to regularly check the manufacturer's recommendations for updates.

Click the link(s) below for more details on:

- [Dabigatran Tablets 75 mg](#)
- [Dabigatran Tablets 110 mg](#)
- [Dabigatran Tablets 150 mg](#)

Contraindicated Drugs:

- ☐ CICLOSPORIN
- ☐ DRONEDARONE
- ☐ ITRACONAZOLE
- ☐ KETOCONAZOLE
- ☐ TACROLIMUS

Interacting Drugs:

- ☐ AMIODARONE
- ☐ ASPIRIN
- ☐ CLARITHROMYCIN
- ☒ CLOPIDOGREL
- ☐ OTHER NSAIDs
- ☐ QUINIDINE
- ☐ TICAGRELOR
- ☐ VERAPAMIL

**CLOPIDOGREL:**  
Close clinical surveillance (looking for  
signs of bleeding or anaemia)

Other anticoagulant or platelet inhibitor:

- ☐ Abciximab
- ☐ Eptifibatide
- ☐ Heparin
- ☐ Prasugrel
- ☐ Sinthrome
- ☐ Ticagrelor
- ☐ Warfarin
- ☐ (Other)

If (other), please give details:

Other contraindications:

- ☐ Active clinically significant bleeding
- ☐ Hepatic impairment or liver disease expected to have any impact on survival
- ☐ Hypersensitivity to dabigatran etexilate
- ☐ Hypersensitivity to sunset yellow (E110)
- ☐ Organic lesion at risk of bleeding
- ☐ Prosthetic Heart Valve
- ☐ Severe renal impairment (CrCl<30ml/min)
- ☐ Spontaneous or pharmacological impairment of haemostasis

Haemorrhagic Risks:

- ☐ Active ulcerative GI disease
- ☐ Bacterial endocarditis
- ☐ Brain, spinal or ophthalmic surgery
- ☐ Congenital or acquired coagulation disorder
- ☐ Recent biopsy or major trauma
- ☐ Recent gastrointestinal bleeding
- ☐ Recent ICH
- ☐ Thrombocytopenia or functional platelet defects

These lists are for guidance only and are not exhaustive. Please use your clinical judgement before decision making. It is your responsibility to regularly check the manufacturer's recommendations for updates.

Click the link(s) below for more details on:

- [Dabigatran Tablets 75 mg](#)
- [Dabigatran Tablets 110 mg](#)
- [Dabigatran Tablets 150 mg](#)

CHA<sub>2</sub>DS<sub>2</sub>-VASc score?

(None selected) ▼

<b>C</b>	<b>Congestive heart failure</b> (or left ventricular systolic dysfunction)	1
<b>H</b>	<b>Hypertension:</b> blood pressure consistently above 140/90 mmHg (or treated hypertension on medication)	1
<b>A<sub>2</sub></b>	<b>Age</b> ≥ 75 years	2
<b>D</b>	<b>Diabetes Mellitus</b>	1
<b>S<sub>2</sub></b>	<b>Prior Stroke or TIA or thromboembolism</b>	2
<b>V</b>	<b>Vascular disease</b> (e.g. peripheral artery disease, myocardial infarction, aortic plaque)	1
<b>A</b>	<b>Age</b> 65-74 years	1
<b>Sc</b>	<b>Sex category</b> (i.e. female gender)	1

HASBLED score?

(None selected) ▼

<b>H</b>	<b>Hypertension?</b> systolic blood pressure > 160 mmHg or uncontrolled	1
<b>A</b>	<b>Renal Disease?</b> (creatinine > 200 uM or > 2.6 mg/dL)	1
	<b>Liver Disease?</b> (cirrhosis, bilirubin > 2xULN, AST/ALT/AP > 3xULN)	1
<b>S</b>	<b>Stroke History?</b>	1
<b>B</b>	<b>Prior Major Bleeding or Predisposition to Bleeding?</b>	1
<b>L</b>	<b>Labile INR?</b>	1
<b>E</b>	<b>Age</b> ≥ 65 years	1
<b>D</b>	<b>Medication Usage Predisposing to Bleeding?</b> (Antiplatelet agent / NSAIDs)	1
	<b>Alcohol Usage History?</b>	1



Procedures planned:

Age (at due date):

52

Key Information Summary:

Primary Indication:	ATRIAL FIBRILLATION NON VALVULAR
Gender:	Male
Age at Due Date:	52
Weight:	Not answered
Serum Creatinine:	Not answered
Measured Creatinine Clearance (CrCl):	Not answered
Estimated CrCl (Cockcroft Gault):	Not answered

Dabigatran Dose:

Dabigatran 110 mg Twice Daily

Valid dosing regimes for this indication are:

Dosing regime	Advice
Dabigatran 150 mg twice daily	Normal dose
Dabigatran 110 mg Twice Daily	Patients aged 80 or over, or at risk of bleeding

Dose Adjustment Required:

☐ No ☐ Yes

Comments:

Status: **Scheduled**

Last marked as complete: 17/05/2019 10:31 by Mark Jeffreys

[Mark as complete](#)[Undo changes](#)

Information in this questionnaire is used to influence dosing and therapy decisions. Please ensure all answers are accurate and complete.

[\(back to the Questionnaires page\)](#)

## 22.1.4 Help to follow recommended guidelines

In this section, the software alerts and dose recommendations are explained. DAWN AC has settings for drug-specific contraindications and approved dosing regimes which are used within

the patient treatment plan and questionnaire to help the user adhere to the chosen guideline. The settings for risks, warnings and contraindications may be updated so that every review of the patient's anticoagulation is fully informed from the latest guidance.

DAWN AC will highlight the following on the questionnaire screen:

- Contraindicated concomitant drugs or conditions including impaired renal function (section 5.4.1 and section 5.4.2)
- Warnings on inconsistency and completeness based on advanced age (section 5.4.4)

Please Note: the above checks are *not* performed for the Apixaban Audit Tool

The system also performs some validation checks and highlights any discrepancies when the user activates a new non-VKA treatment plan. (section 5.4.5)

(click here to go back to Overview page)

(back to FAQs page)

### 22.1.4.1 Contraindications

Contraindications are highlighted in **RED** on the Initiation Questionnaire and shown on the Questionnaires tab summary comment. Pop-ups will also highlight contraindications on attempting to proceed with a plan for DOAC therapy.

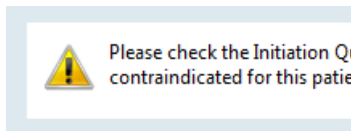
✗ Contraindicated Drugs

☒ CICLOSPORIN  
☐ ITRACONAZOLE  
☐ TACROLIMUS

Questionnaire screen shows a red ✗

Personal	Treatment plans	Questionnaires	Test Results	Interface warnings
Add a new record → 1 / 2 / 2				
	Questionnaire type	Entry date	Summary	
	Contraindication Follow Up	26/05/2019	Communicated	
	Contraindication initiation	28/03/2014	CIC: 100 mg twice daily (CIC 40 mg, ITR 20 mg) - Close: 100 mg twice daily	

Summary shows contraindicated



Pop-up warning example

**i** The settings for contraindications may be updated as new medical evidence emerges using the Look Up Tables in DAWN AC.

(back to Help page)

### 22.1.4.2 Renal function

Guidelines recommend using an estimate of creatinine clearance rather than an eGFR calculation when dealing with patients on Dabigatran anticoagulation. DAWN AC provides a calculator for estimating renal function from serum creatinine and body weight.

Cockcroft-Gault estimate of CrCl:  $1.23 \times (140 - \text{Age (years)}) \times \text{Body Mass (kg)} \times (0.85 \text{ if female})$

Cockcroft D, Gault MD.  
Nephron, 16:31-41, 1976

serum creatinine ( $\mu\text{mol/L}$ )

Serum Creatinine:

☐ US (mg/dL) ☒ SI ( $\mu\text{mol/L}$ )

Body Weight:  kg

Gender: Female

Age (at due date): 86

**Calculate Cockcroft-Gault CrCl**

68 mL/min

**Mild renal impairment**

Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.

(back to Help page)

### 22.1.4.3 Warnings on inconsistency and completeness

Warnings are shown in red for age / mild renal impairment / other warnings.  
Eg in the Dabigatran Initiation Questionnaire

Dabigatran Dose:

Dabigatran 220mg once daily

**This dose is not appropriate for this therapeutic indication**

Valid dosing regimes for this indication are:

Dosing regime	Advice
Dabigatran 150 mg twice daily	Normal dose
Dabigatran 110 mg Twice Daily	Patients aged 80 or over, or at risk of bleeding

**Moderate renal impairment**

On activating a treatment plan for a non-VKA, several checks are made in the background and an error will highlight any discrepancy.

For example, DAWN AC will

- check that the patient has an appropriate Primary Diagnosis and highlight any not recognised as therapeutic indications for the anticoagulant.
- check that the user has completed an Initiation Questionnaire listing drugs, conditions and test results.
- check the dose of non-VKA anticoagulant is advised for the Primary Diagnosis.
- check that the same dose and diagnosis have been entered for the treatment plan and the Initiation Questionnaire.

**i** The settings for warnings may be updated as new medical evidence emerges using the Look Up Tables in DAWN AC.

(back to Help page)

#### 22.1.4.4 Overview of Validation Checks

Activation of a new treatment plan for non-VKA on DAWN AC triggers some background checks as follows.



If the user selects 'activate' and all checks pass, the treatment plan is activated without error. If there is any discrepancy, an error message will indicate the problem and the user may correct the Initiation Questionnaire or the treatment plan or both and activate again. Should your DAWN AC settings need to be updated as new medical evidence emerges, please contact your system administrator.

#### Checks for non-VKA treatment plans -

- **the primary diagnosis is one known to be acceptable for the chosen drug and dose**

*For example, you may have chosen 75mg once per day for Dabigatran in an AF patient. If this regime is not permitted, it will not be possible to complete an Initiation Questionnaire with this combination and a treatment plan cannot be activated and a follow-up cannot be scheduled..*

**i** DAWN AC performs 2 checks on every primary diagnosis. Firstly, the drug and diagnosis must be stored in your Look Up Tables as a Therapeutic indication like Dabigatran being acceptable as an anticoagulant in Atrial Fibrillation (non-valvular). Secondly, DAWN AC stores 'Permitted Regimes' for each diagnosis. So, several doses such as 150mg twice daily or 110mg twice daily may be acceptable but 75mg once per day may not be acceptable for Dabigatran in Atrial Fibrillation (non-valvular).

- **the drug chosen is not a non-VKA anticoagulant**

*For example, you may have chosen Warfarin mixed tablets regime and marked the treatment plan as non-VKA in the target range box.*



You have selected a Non-Vitamin K Antagonist Target Range for an anticoagulant that is a Vitamin K Antagonist

- **the appropriate questionnaire has been completed BEFORE the treatment plan is activated**

*For example, you may select a treatment plan for Dabigatran 150mg twice daily but forget to go through the list of possible contraindications / interactions / risks. DAWN AC will prevent activation of the treatment plan and scheduling any follow-up until the questionnaire is completed.*

**i** The requirement for a questionnaire is set in the Look Up Table called 'Questionnaire settings' and may be updated by your system administrator to add any required questionnaires for particular drugs.

- **the completed questionnaire has different details from the treatment plan**

*For example, you may select a treatment plan for Dabigatran 110mg twice daily on the Initiation Questionnaire but choose Dabigatran 150mg twice daily on the treatment plan.*



You have selected a regime for 110 mg twice daily but the Initiation Questionnaire records the intended dose as 150 mg twice daily. Please correct the regime or amend the recommendation in the initiation questionnaire and include a comment to say why you are changing it.

(back to Help page)

(back to Settings for Regime and Dose Settings page)

### 22.1.5 Reporting on the non-VKA patient database

The powerful SQL reporting tools in DAWN AC can be configured to extract counts or lists of patients on certain anticoagulants. These reports may be used to assess recorded events in relation to the anticoagulant used.

Example 1 Patient count by range, diagnosis and duration (section 5.5.1)

Example 2 Events - all areas (section 5.5.2)

(click here to go back to Overview page)

### 22.1.5.1 Example 1

Report NPSA #7-8 Patient Cnt By Range, Diag and Duration

Diagnosis

- 11111
- AF/CARDIOVERSION
- ANEURYSM
- ANEURYSM WITH EMBOLIC EPISODES
- ANGINA
- ANGIOPLASTY
- ANTI-PHOSPHOLIPID SYNDROME
- ANTITHROMBIN 111 DEFICIENCY

TargetRange

Non-VKA

- 1.5 - 2.5 (2.0 Target)
- 2.0 - 3.0 (2.5 Target)
- 2.5 - 3.5 (3.0 Target)
- 3.0 - 4.0 (3.5 Target)
- 3.0 - 4.5 (3.75 Target)
- 3.5 - 4.5 (4.0 Target)

Show report

Download as XML

Download as Text

Email address  Send

Diagnosis	Target INR	Duration of Therapy	Count	Total	% of Total
Atrial fibrillation nonvalvular	0	Indefinite	2	4	50
Total hip replacement surgery	0	Indefinite	2	4	50

(back to reporting page)

### 22.1.5.2 Example 2

Report EVENTS - all areas

Event Severity

- Minor
- Moderate (No Hospitalisation)
- Moderate (Hospitalisation)
- Major (Hospitalisation)
- Fatal

Within How Many Days Of TP Start Date

Events

- Bleed lower GI
- Bleed upper GI
- Bleeding - any other site
- Bruising, unexplained
- Cerebral haemorrhage
- Cerebral vascular accident
- Deep vein thrombosis
- Diarrhoea and vomiting

Anticoagulant

Dabigatran 150 mg once daily

Show report

Download as XML

Download as Text

Email address  Send

Events - all areas

Event date	Therapy	Status	Name	DOB	NHS Number	MRN	Event	Severity
03/09/2012	Dabigatran 150 mg once daily	Current	Lancaster, Eric	12/06/1934		9876542	Cerebral vascular accident	Major (Hospitalisation)

(back to reporting page)

### 22.1.6 Other Non-VKA agents / Questionnaires

Please note the module shown in this section is for Dabigatran, however modules are available that provide support separately for other non-VKAs such as Rivaroxaban, Apixaban and

Edoxaban through specifically-designed questionnaires for each agent. Please call for a quotation.

Contact 4S DAWN Clinical Software for more information at [sales@4s-DAWN.com](mailto:sales@4s-DAWN.com) / [support@4s-DAWN.com](mailto:support@4s-DAWN.com) / 015395 63091.

(click here to go back to Overview page)

## 22.2 Detailed Non-VKA Workflow

The following workflow describes how to add and deal with a new patient on non-VKA therapy or edit an existing warfarin patient so that are logged as being on non-VKA therapy. The essential steps in recording non-VKA anticoagulation are as follows -

Search

Selection:

Active patients

Patients with active Treatment Plans for selected app.area

Search for:

Last name

NHS No

Post Code

Date of Death

Home phone

Email address

First name

Town

Sex

Language

Mobile phone

Next of kin nam

	Last name	First name	Age	MRN	NHS No	Verified	Dateofbirth	Address 1	Address 2
	ADAMS	John	58	999	012 345 6789	<input checked="" type="checkbox"/>	01/01/1959	11 SPRACKLANDS	Highgate
	ADAMS	Julie	11	H23023	012 345 6789	<input type="checkbox"/>	01/08/2006	39 MAES YR & HAF	
	ADAMS	Mary	55	M47904	4560508360	<input type="checkbox"/>	18/01/1962	6 MARTIN AVE	TYNEMOUTH
	ADAMS	Tom	71	S62778	8709784337	<input type="checkbox"/>	16/10/1946	FLAT 2	
	ADAMSON	Fred	86	987654			29/04/1931	4 The Square	Milnthorpe
	ADD	history	45	33333	468 074 9709	<input type="checkbox"/>	01/01/1972		
	ALDERSON	Eddie	70	D78137			02/03/1947	12 ROCKCLIFFE GDNS	ASHFORD
	ANDERSON	Luke	107	T18164	1582273540	<input type="checkbox"/>	20/03/1910	6 HAULFRYN	
	AND		80	P67190	3158256668	<input type="checkbox"/>	09/05/1937	5 MARKET PLACE	ROTHWELL

Down
 New
 Save
 Print

### 1. Check if the patient details are already on DAWN AC

Search

Selection:

Last name

National No

Search for:

smith

**2. Add the patient details (identification numbers, name and address, etc) or update a previous record as required**  
(section 10)

New Patient Wizard ✕

Step 1 - Patient Details ▼ Step 2 - Treatment

Last name

First name

Sex

Title

**3. Complete an Initiation Questionnaire**  
(section 6.1)

Assessment as a Candidate for Dabigatran Initiation

Patient Name: Fitzherbert Barnaby Due Date: 24/05/2019  
 24/05/2019 at 00:00 24hr format  
 NB Please check this appointment is made in your clinic diary or hospital administration system.

Unit No: F5 to be completed at

Status Scheduled

Questions:

Status: Scheduled


[Mark as complete](#)

**4. Stop any existing treatment plan for other anticoagulant or dose**  
(section 6.2.3)

Anticoagulant Warfarin 1mg Strength (in Mg / Daily Avg)

[Treatment Plan](#) < 3 > of 3 stopped

**5. Activate a treatment plan for the chosen anticoagulant and dose**  
(section 6.2.1)

 Barnaby, Fitzherbert - Male - 06/06/1947 - F5 - 836 Dawn Vill

Risk Class

Pref. Clinic

Phone

Age: 71

Diagnosis TOTAL HIP REPLACEMENT SURGERY ...

Target Range Non-VKA

Start Date 24/05/2019 📅 - 14 wks. Due to stop: 30/08/2019

Anticoagulant Dabigatran 220mg once daily



[Treatment Plan](#) < 2 > of 3 active

[Risks](#)

**6. Schedule the next follow-up as a Follow Up**



## Questionnaire (section 6.3)

Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Add a new record → 1 - 2 / 2				
QuestionnaireType		Entry date	Summary	
	Dabigatran Follow Up	18/06/2019	Scheduled	
	Dabigatran Initiation	24/05/2019	Complete: CrCl not recorded	

## 7. See the FAQs page for some common queries on the Non-VKA Workflow (section 6.4)



HINT

Don't forget to chase patients due for follow-up at regular intervals! - you'll find them listed on the list view for Non-VKA.

At some points you may need to -

- Change the dose of anticoagulant (section 6.2.3)
- Switch to a different anticoagulant (section 7)
- Stop the current anticoagulation record (section 6.2.3)
- Mark the patient as inactive / deceased

In order to keep track of all your patients, you will need to follow the daily / weekly routines to check for patients overdue for follow-up or not yet actively treated.

### 22.2.1 Initiation Questionnaire

You can add a non-VKA Initiation Questionnaire to any patient from the Questionnaires tab.



For non-VKA anticoagulants, you must complete an Initiation Questionnaire before activating a treatment plan on DAWN AC.

Watters, Wilma - Female - 4S-1265

Risk Class: High

Pref. Clinic: (None selected)

Phone: - home

Age:

Diagnosis

Target Range

Start Date: 24/05/2019

Anticoagulant: Not Set

Treatment Plan: < 1 > of 1 New

Risks

Quick Notes

Add Quick Note

Dosing Contacts Letters Drugs Events Procedures

Add a new record

There are no items to display

Graph History Personal Treatment plans Questionnaires

Add a new record

There are no items to display

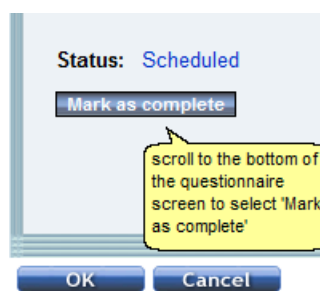
The 'Due Date' will default to today but you can change this if you wish. If you are not ready to answer all the questions, simply click OK and the details may be completed later.

The questions cover

- Indications and Risk Factors for the non-VKA therapy (section 4.1.2.1 and section 4.1.2.2)
- Renal function including a calculator for Cockcroft-Gault estimate of CrCl (section 4.1.2.3)
- Records for hepatic impairment (section 4.1.2.4)
- Contraindicated or Interacting drugs including other anticoagulants or platelet inhibitors (section 4.1.2.5 and section 4.1.2.6)
- A reminder to ensure INR is not 2 or above if switching from a vitamin K antagonist
- Contraindicated conditions and Haemorrhagic Risks (section 4.1.2.9 and section 4.1.2.10)
- Records for CHA2DS2VASc and HASBLED scores (section 4.1.2.12)
- Notes for planned procedures or other comments
- Dose (section 4.1.2.11)

Please Note: most of the above questions are not displayed in the Apixaban Audit Tool. Instead, see [Complete an Initiation Questionnaire - Apixaban Audit Tool](#)

Once you have answered all sections, click on 'Mark as complete' at the bottom of the questionnaire.



(back to Integrated non-VKA / VKA patient record)

(back to Detailed Workflow page)

(back to Settings for Regime and Dose Settings page)

### 22.2.1.1 Schedule an Initiation (non-VKA)

On adding an Initiation Questionnaire, change the 'Due Date' to the date you will complete the details.

## Assessment as a Candidate for Dabigatran Initiation

Patient Name:	Wilma Watters	Due Date:	24/05/2019 09:00
			24/05/2019  at: 09 : 00 24hr format
			<b>NB</b> Please check this appointment is made in your clinic diary or hospital administration system.
Unit No:	4S-1265	to be completed at	(None selected) ▼
		Status	Scheduled


Click OK at the bottom of the Questionnaire screen to save this Initiation with the scheduled date.



You will find the questionnaire on the questionnaires tab for later completion.

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
-------	---------	----------	-----------------	----------------	--------------	--------------------

Add a new record → 1 - 1 / 1

QuestionnaireType	Entry date	Summary
 Dabigatran Initiation	24/05/2019 09:00	Scheduled

Click here to learn how to schedule the questionnaire into a clinic diary

(back to Initiation Questionnaire page)


### 22.2.1.2 Schedule an Assessment in a Clinic Diary (non-VKA)

You have the option to schedule DOAC (or non VKA) questionnaires into your normal clinic diaries. You can set up a dedicated DOAC clinic, or you can schedule DOAC patients alongside warfarin patients in the same clinic. (You can do this for both initiation or candidate questionnaires, and follow up questionnaires).

To enable scheduling of non-VKA questionnaires into clinic diaries:

1. Change the *DOAC\_Allow\_Scheduling\_Into\_Diary* system setting to 1.
2. Create or open the questionnaire you wish to schedule. The clinic, date and time fields now have a *Schedule* button beneath them.

Due Date: 01/06/2020 15:30

01/06/2020  at: 15 : 30  
24hr format

NB Please check this appointment is made in your clinic diary or hospital administration system.

to be completed at Default Clinic ▼

Status Not Scheduled:  
Schedule

3. Choose the clinic and the date you wish to schedule the appointment for.
4. If you want to try and schedule the appointment for a specific time, enter the time.

N.B. If you leave the time blank, DAWN checks whether the patient has a preferred time recorded on their treatment plan. If they do, DAWN tries to schedule the appointment for the the first available slot within the patient's preferred time window. If not, it schedules the appointment for the first available slot on the day.

5. Press the Schedule button. DAWN asks you to confirm you wish to schedule the

appointment in the clinic diary.

6. Click OK to schedule the appointment or Cancel to abandon the action.

DAWN attempts to schedule the appointment in the clinic diary. If it is successful, the date, time, and clinic fields become read-only and the *Schedule* button is replaced with an *Unschedule* button.

The time now shows the actual scheduled time, which may be different to the time you enter if that was not available.



The screenshot displays a light gray interface with the following elements:

- Due Date:** 01/06/2020 15:30
- Below the date, it shows "01/06/2020" and "at: 15:30" with "24hr format" underneath.
- A note: "NB Please check this appointment is made in your clinic diary or hospital administration system."
- to be completed at:** Default Clinic
- Status:** Scheduled as above:
- A blue button labeled "UnSchedule" is positioned below the status.

If DAWN is unable to schedule the appointment into the diary for the selected clinic and day, it displays the clinic diary screen so that you can manually choose an alternative date, clinic, or time slot. (DAWN never automatically schedules into a reserved slot, but you can manually select a reserved slot if there is one free).

7. Press the Unschedule button to remove the questionnaire from the diary and free up the slot.  
N.B. this happens automatically if you delete the questionnaire.

### 22.2.1.3 Complete an Initiation Questionnaire

The Initiation questionnaire is structured to help you record all relevant details at the time the non-VKA therapy is considered. See details of the Initiation Questionnaire. (section 4.1)

Watters, Wilma - Female - 4S-1265

Risk Class: High

Pref. Clinic: (None selected)

Phone: - home

Age:

Diagnosis

Target Range

Start Date: 24/05/2019

Anticoagulant: Not Set

Treatment Plan: < 1 > of 1 New

Risks

Quick Notes

Add Quick Note

Dosing

Contacts

Letters

Drugs

Events

Procedures

Add a new record

There are no items to display

Graph

History

Personal

Treatment plans

Questionnaires

Add a new record

There are no items to display

If you cannot answer some questions, simply click OK or Save and come back later to complete the answers.

Status: Scheduled

Mark as complete

Information in this question  
Please ensure all answers are complete

On marking the answers as complete you are confirming that DAWN AC can store this record, display a summary on the questionnaires tab and check details against the treatment plan.

If you've added some details in error, Cancel your changes using 'Cancel' or the rewind button at the top of the screen -



If you need to delete a questionnaire completely, look for the bin symbol on the questionnaires tab and save before confirming you wish to delete this record:

QuestionnaireType	Entry date	Summary
Dabigatran Follow Up	24/05/2019	Scheduled
Dabigatran Follow Up	23/05/2019	Overdue
Dabigatran Initiation	20/12/2018	Complete: CrCl: 600 mL/min (cre: 75 µmol/L, Wt: 65 kg) - Dose: 220 mg once daily

If you need to add more information or adjust the Initiation Questionnaire once it is already completed:

1. locate the completed questionnaire on the Questionnaires tab
2. select Unlock to edit

Unlock to edit

3. save your changes

**NB** - unlocking a previous questionnaire to edit it may cause the details to be updated with subsequent changes to the patient details. For example, if the patient was previously on an interacting drug which was later removed from your DAWN AC database, the drug would still be stored in the old completed questionnaire. On unlocking the old questionnaire, the record for this drug may no longer be available.

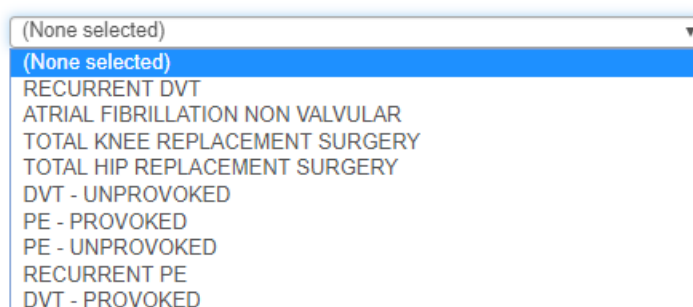
(back to Initiation Questionnaire page)

### 22.2.1.3.1 Therapeutic Indication

The dropdown menu for Therapeutic indication displays options for the primary diagnosis. The available options are those set for any anticoagulant in the Lookup Tables as 'Therapeutic Indications'.

Selection of the most relevant therapeutic indication for your patient is recommended. If you are unsure, you might wish to complete this later.

Therapeutic Indication:



(None selected)

(None selected)

RECURRENT DVT

ATRIAL FIBRILLATION NON VALVULAR

TOTAL KNEE REPLACEMENT SURGERY

TOTAL HIP REPLACEMENT SURGERY

DVT - UNPROVOKED

PE - PROVOKED

PE - UNPROVOKED

RECURRENT PE

DVT - PROVOKED

See Lookup Tables to adjust the options displayed in this drop down menu.

(back to Initiation Questionnaire page)

(back to Settings for New Oral Anticoagulants page)

### 22.2.1.3.2 Qualifying Risk Factors

Select the tickbox next to any thrombotic risks your patient may have. Recording this information may be useful for later decisions on anticoagulation therapy.

## Qualifying Risk Factors:

- ☐ Aged  $\geq 65$  with diabetes mellitus, coronary artery disease or hypertension
- ☐ Aged 75 or over
- ☐ Left ventricular ejection fraction  $< 40\%$
- ☐ Previous Stroke, transient ischaemic attack or systemic embolism (SEE)
- ☐ Symptomatic heart failure  $\geq$  NYHA Class 2

The options displayed here are set in Look Up Tables as Qualifying Risk Factors.

(back to Initiation Questionnaire page)

### 22.2.1.3.3 Renal function

Estimates of renal function may be recorded in several ways on the Initiation Questionnaire and these will show contraindications / warnings for the non-VKA agent where renal function is impaired -

- measured creatinine clearance (laboratory estimation)
- serum creatinine
- Cockcroft-Gault estimation of creatinine clearance
- other measures may be recorded in the notes box

DAWN AC provides a calculator for estimating renal function from serum creatinine and body weight. Enter these 2 values and click on the 'Calculate Cockcroft-Gault CrCL'.

Guidelines recommend using an estimate of creatinine clearance rather than an eGFR calculation when dealing with patients on Dabigatran anticoagulation.

Cockcroft-Gault estimate of CrCl:		$1.23 \times (140 - \text{Age (years)}) \times \text{Body Mass (kg)} \times (0.85 \text{ if female})$	
Cockcroft D, Gault MD. Nephron, 16:31-41, 1976		serum creatinine ( $\mu\text{mol/L}$ )	
Serum Creatinine:	<input type="text" value="50.00"/>	<input type="text" value="21/05/2019"/>	
<input type="radio"/> US (mg/dL) <input checked="" type="radio"/> SI ( $\mu\text{mol/L}$ )			
Body Weight:	<input type="text" value="60"/> kg	<input type="text" value="21/05/2019"/>	
Gender:	Female		
Age (at due date):	86		
<div>Calculate Cockcroft-Gault CrCl</div>		68 mL/min <b>Mild renal impairment</b> Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.	

Note - if you have a laboratory estimation which is less than a numeric value (like  $<30$ ), please



enter the number (like 30) in the Measured Creatinine Clearance or Serum Creatinine boxes. Similarly for results which are reported as greater than a value (like > 220), please enter the numeric value (like 220).

The limits used for creatinine clearance differ according to which anticoagulant you are using. For dabigatran, they are set as follows in DAWN -

less than 30	severe
greater than equal to 30 and less than 50	moderate
greater than equal to 50	mild

For rivaroxaban and apixaban, the threshold for severe renal impairment is 15 rather than 30.

The DAWN system alerts you if you add an unusually low or high serum creatinine or body weight measurement. If you get a warning message, please check the details you entered carefully.

**Please Note:** you can record serum creatinine results in mg/dL (as used in the USA) or in  $\mu\text{mol/L}$  (as used in the UK). Please choose the radio button for the appropriate units. If you need to change the radio button, consider changing the default setting so that it will default correctly in the future.

To change the default setting, amend the *DefaultSerumCreatinineUnits* system setting, entering 1 for mg/dL or 2 for  $\mu\text{mol/L}$ . The initial value of the system setting is set according to your date format. If your system uses MM/DD/YYYY as the date format, the *DefaultSerumCreatinine* units is initially set to 1 for mg/dL. Otherwise it is initially set to 2 for  $\mu\text{mol/L}$ .

### Upgrading from an earlier version of the Non-VKA module

The ability to specify which units you use for serum creatinine, was introduced in an upgrade to the Non-VKA module that was released in Jan 2016. Earlier versions only allowed serum creatinine results to be entered in  $\mu\text{mol/L}$ . If you upgrade from an earlier version, DAWN remembers the date of the upgrade. If you open a questionnaire with a due by date that predates the upgrade and the questionnaire already has a result for serum creatinine, the result is assumed to be in  $\mu\text{mol/L}$  as that was the only option available when the result was entered, even if the default for new questionnaires is mg/dL.

(back to Initiation Questionnaire page)

#### 22.2.1.3.4 Hepatic impairment

If your patient is known to have hepatic impairment, tick the Hepatic impairment checkbox. In some studies, hepatic impairment is defined as liver enzyme results greater than twice the upper limit of normal.

## Hepatic Impairment:

☐ Liver Enzymes > 2ULN

## Other Blood Checks:



You may wish to add details of other blood tests in the notes box for later reference.

Note - some anticoagulants may not be recommended in patients with know hepatic impairment.

(back to Initiation Questionnaire page)

### 22.2.1.3.5 Contraindicated drugs

Some concomitant drugs may be known to be contraindicated for the chosen anticoagulant as published in the prescribing guidelines. Please tick any drugs if your patient is currently prescribed this drug.

Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Add a new record → 1 - 2 / 2				
QuestionnaireType	Entry date	Summary		
 Dabigatran Follow Up	20/05/2019	Contraindicated		
 Dabigatran Initiation	28/03/2014	CrCl: 103 mL/min (cre: 45 µM, Wt: 50 kg) - Dose: 150 mg twice daily		

The list of drugs displayed are defined in the Look Up Tables on your DAWN AC database and additional drugs may be added to this list as required. Please contact your system administrator to add new drug settings to the 'Interacting Drugs' table.

(back to Initiation Questionnaire page)

(back to FAQs page)

(back to Interacting Drugs Settings page)

### 22.2.1.3.6 Interacting drugs

Some interacting drugs may be known to increase the haemorrhagic risk if used along with the chosen anticoagulant. See relevant published prescribing guidelines. Please tick any drugs if your patient is currently prescribed this drug.

## Interacting Drugs:

- ☐ AMIODARONE
- ☐ ASPIRIN
- ☐ CLARITHROMYCIN
- ☐ CLOPIDOGREL
- ☐ OTHER NSAIDs
- ☐ QUINIDINE
- ☐ TICAGRELOR
- ☐ VERAPAMIL

## Other anticoagulant or platelet inhibitor

Selecting one or more listed drugs will cause some advice to be displayed on screen like this:

## Interacting Drugs:

- ☐ AMIODARONE
- ☐ ASPIRIN
- ☐ CLARITHROMYCIN
- ☒ CLOPIDOGREL
- ☐ OTHER NSAIDs
- ☒ QUINIDINE
- ☐ TICAGRELOR
- ☐ VERAPAMIL

## CLOPIDOGREL:

Close clinical surveillance (looking for signs of bleeding or anaemia)

## QUINIDINE:

For prevention of VTEs after hip or knee surgery, dosing should be reduced to 150mg per day taken once daily as 2 capsules of 75mg dabigatran etexilate. Close clinical surveillance particularly in the occurrence of bleeding, notably in patients having a mild to moderate renal impairment

The list of drugs displayed and the advice displayed on screen are defined in the Look Up Tables on your DAWN AC database. Updates to the advice or additional drugs may be added to this list as required. Please contact your system administrator to add new drug settings to the 'Interacting Drugs' table.

(back to Initiation Questionnaire page)

(back to Interacting Drugs Settings page)

## 22.2.1.3.7 Other anticoagulant or platelet inhibitor

It is important to record any other anticoagulant or platelet inhibitor prescribed along with the non-VKA agent even if this for a short period.

## Other anticoagulant or platelet inhibitor:

- ☐ Abciximab
- ☐ Eptifibatide
- ☐ Heparin
- ☐ Prasugrel
- ☐ Sinthrome
- ☐ Ticagrelor
- ☒ Warfarin
- ☐ (Other)

If (other), please give details:

to continue 1mg per day until Tuesday 28th

The list of drugs displayed may be added to or edited in the General Lookup Category for 'Anticoagulant or Platelet Inhibitors' - please contact your system administrator to arrange changes to the displayed options.

(back to Initiation Questionnaire page)

## 22.2.1.3.8 Switching from VKA

If your patient is switching from warfarin (or other vitamin K antagonist) to a non-VKA agent, please check the latest INR result and tick the box if it is greater than 1.9.

If switching from VKA,  
is the INR  $\geq 2$ ?



Delay starting dabigatran until INR  $< 2$

(back to Initiation Questionnaire page)

### 22.2.1.3.9 Other contraindications

Please tick any of the other contraindications which apply to your patient. These risks are identified in prescribing guidelines as contraindications for dosing with non-VKA agents.

Other contraindications:

- ☐ Active clinically significant bleeding
- ☐ Hepatic impairment or liver disease expected to have any impact on survival
- ☐ Hypersensitivity to dabigatran etexilate
- ☐ Hypersensitivity to sunset yellow (E110)
- ☐ Organic lesion at risk of bleeding
- ☐ Prosthetic Heart Valve
- ☐ Severe renal impairment ( $\text{CrCl} < 30 \text{ ml/min}$ )
- ☐ Spontaneous or pharmacological impairment of haemostasis

The list of contraindications displayed on the Initiation Questionnaire may be edited / added to by your system administrator using the Look Up Tables called Risks and Specific Risks.

NB - any risks identified on the Initiation Questionnaire will **NOT** automatically display at the top-left of your patient screen. You may wish to highlight these manually on the patient screen either by adding Risks for a new patient or clicking on the 'Risks' button to add risks for an existing patient screen.

Risk Class	Low
Pref. Clinic	(None selected)
Phone	- home
Age:	71

Diagnosis	ATRIAL FIBRILLATION NON VALVULAR ...
Target Range	Non-VKA
Start Date	24/05/2019 - Indefinite
Anticoagulant	Dabigatran 110 mg Twice Daily
Treatment Plan	< 2 > of 2 active
Risks	

(back to Initiation Questionnaire page)

(back to Risk Settings page)

### 22.2.1.3.10 Haemorrhagic risks

Please tick any of the risks which apply to your patient. These risks are identified in prescribing guidelines as significant risks for consideration in dosing decisions for non-VKA agents.

#### Haemorrhagic Risks:

- ☐ Active ulcerative GI disease
- ☐ Bacterial endocarditis
- ☐ Brain, spinal or ophthalmic surgery
- ☐ Congenital or acquired coagulation disorder
- ☐ Recent biopsy or major trauma
- ☐ Recent gastrointestinal bleeding
- ☐ Recent ICH
- ☐ Thrombocytopenia or functional platelet defects

The list of haemorrhagic risks may be edited / added to by your system administrator using the Look Up Tables called Risks and Specific Risks.

NB - any risks identified on the Initiation Questionnaire will **NOT** automatically display at the top-left of your patient screen - see adding Risks for a new patient section or click on 'Risks' button to add risks on the patient screen.

Risk Class	Low
Pref. Clinic	(None selected)
Phone	- home
Age:	71

Diagnosis	ATRIAL FIBRILLATION NON VALVULAR ...
Target Range	Non-VKA
Start Date	24/05/2019 - Indefinite
Anticoagulant	Dabigatran 110 mg Twice Daily
Treatment Plan	2 of 2 active
Risks	

(back to Initiation Questionnaire page)

(back to FAQs page)

(back to Risk Settings page)

### 22.2.1.3.11 Dose Suggestion

For DOACs other than Dabigatran, the system suggests a dose, so long as no contra-indications have been identified and certain key fields have been filled in. The suggestion takes into account a variety of

factors depending on the DOAC and therapeutic indication. These factors include: renal function, age, weight and, for Rivaroxaban and Apixaban candidate modules, VTE induction status (if this field is displayed.)

Dose Options:

Dosing regime	Advice
Rivaroxaban 15 mg Twice Daily	Normal Dose Day 1-21
Rivaroxaban 20 mg Once Daily	Normal Dose Day 22 onwards (normal renal function to severe renal impairment CrCl $\geq$ 15mL/min)
Rivaroxaban 15 mg Once Daily	A reduction of the dose from 20mg once daily to 15 mg once daily should be considered if the patient's assessed risk for bleeding outweighs the risk for recurrent DVT and PE.

Suggested Dose:

**15mg twice daily for three weeks and then 20mg once daily**

Please use your clinical judgement before deciding on the most appropriate dose. It is your responsibility to regularly check the manufacturer's recommendations for updates.

Click the link(s) below for more details on:

- [Rivaroxaban Tablets](#)

Rivaroxaban Dose:

(None selected) ▼

If insufficient information is provided to make a suggestion, the system instead specifies what information needs to be keyed.



**This dose is only a suggestion and might not take into account all the factors specified within the Dose Options advice table above or any other patient specific factors.**

**Please use your clinical judgement before deciding on the most appropriate dose.**

It is possible to hide the suggested dose for all DOACs. The *Suggested Dose* is based solely on the manufacturers' original recommendations alone and does not take into account any customisations you make to the Permitted Regimes table - in particular, the Clinical Advice you can add or update for each regime. In order to prevent an inconsistent or misleading suggestion, you should *hide the Suggested Dose* if you make significant changes to the Permitted Regimes table.

### 22.2.1.3.12 Dose

The dose recorded on the Initiation Questionnaire may be chosen from any regime for this anticoagulant on DAWN AC. For example, in Dabigatran:

Dabigatran Dose:

(None selected) ▼

Valid dosing regimes for this indication are:

Dosing regime	Advice
Dabigatran 150 mg twice daily	Normal dose
Dabigatran 110 mg Twice Daily	Patients aged 80 or over, or at risk of bleeding

This screen shows advice for permitted regimes set for the chosen Therapeutic Indication (at the top of this questionnaire). To update or change the displayed options, request that your system administrator edits the settings for Anticoagulation Tables.

(back to Initiation Questionnaire page)

### 22.2.1.3.13 CHADS and HASBLED scores

CHA<sub>2</sub>DS<sub>2</sub>-VASc and HASBLED scores may be optionally recorded from the dropdown menus on your questionnaire.

CHA<sub>2</sub>DS<sub>2</sub>-VASc score?

(None selected) ▼

(None selected)

0

1

2

3

4

5

6

7

8

9

HASBLED score?

(None selected) ▼

(None selected)

0: Risk was 0.9% in one study

1: Risk was 3.4% in one study

2: Risk was 4.1% in one study

3: Risk was 5.8% in one study

4: Risk was 8.9% in one study

5: Risk was 9.1% in one study

6: Risk > 9.1%

7: Risk > 9.1%

8: Risk > 9.1%

9: Risk > 9.1%

The dropdown options are provided from the settings in your DAWN AC Normal Tables, General Lookup Category (CHA<sub>2</sub>DS<sub>2</sub>-VASc Score and HASBLED). You may wish to request that your system manager updates the options available.

(back to Initiation Questionnaire page)

#### 22.2.1.3.14 Apixaban Audit Tool - Complete an Initiation Questionnaire



**Pfizer Limited (Pfizer) on behalf of the Bristol-Myers Squibb (BMS) - Pfizer Alliance funded the initial development of and made a contribution to the cost of the initial licence fees of this Apixaban (Eliquis®) software module, however neither Pfizer nor BMS any longer owns, manages or is responsible for this module or any associated content. Any adverse events should be reported to the MHRA via the yellow card reporting system which can be found at [www.mhrrs.gov.uk/yellowcard](http://www.mhrrs.gov.uk/yellowcard)**

For this questionnaire, the sections:

- Therapeutic Indication
- Switching from VKA
- CHADS and HASBLED scores

are as described above.

Please Note: In contrast to the other non-VKA questionnaires, the Apixaban Audit Tool does not have lists of possible contraindicated & cautioned drugs etc and other preventions/warnings. Instead, this questionnaire captures the keyed patient information and the decision as to whether to proceed to prescribe Apixaban. For details, see Mark the Patient to be Started or Not on Apixaban

See also

- Renal function for the Apixaban Audit Tool
- Dose for the Apixaban Audit Tool

(back to Initiation Questionnaire page)

##### 22.2.1.3.14.1 Renal function for the Apixaban Audit Tool

Estimates of renal function may be recorded in several ways on the Apixaban Audit Tool Questionnaires:

- measured creatinine clearance (laboratory estimation)
- eGFR
- serum creatinine
- Cockcroft-Gault estimation of creatinine clearance
- other measures may be recorded in the Other Tests box



Measured Creatinine Clearance:	<input type="text"/>	mL/min
eGFR:	<input type="text"/>	mL/min
Serum Creatinine:	<input type="text"/>	<input type="radio"/> US (mg/dL) <input checked="" type="radio"/> SI (µmol/L) *
Body Weight:	<input type="text"/>	kg *
Gender:	Male	
Age (at due date)	63	
Estimated CrCl (Cockcroft-Gault):	<input type="text"/>	mL/min
<small>Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.</small>		
Other Blood Checks:	<input type="text"/>	

Note - if you have a laboratory estimation which includes eg a greater than or less than symbol (eg <30 or >220) or similar, please enter the numeric value *number* (eg 30) in the field.

The DAWN system alerts you if you add an unusually low or high serum creatinine or body weight measurement. If you get a warning message, please check the details you entered carefully.

**Please Note:** you can record serum creatinine results in mg/dL (as used in the USA) or in µmol/L (as used in the UK). Please choose the radio button for the appropriate units. If you need to change the radio button, consider changing the default setting so that it will default correctly in the future.

#### 22.2.1.3.14.2 Mark the Patient to be Started or Not on Apixaban

Patient to be continued on Apixaban?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Planned Duration:	<input type="text"/>

Click **Yes** to record that the patient is to be started on Apixaban. This will display relevant additional fields, in particular, the Dose field. (If the Dose field is *not* displayed, it is likely to be because you have omitted to key a Primary Indication.)

Click **No** to record that the patient is **not** to be started on Apixaban. This will hide any displayed dosing fields and display a field for capturing an optional reason why.

**Note - An Apixaban treatment plan can only be activated for this patient if you have set the decision to Yes and keyed a dose.**

### 22.2.1.3.14.3 Dose for the Apixaban Audit Tool

The *Initial (or only) Apixaban Dose* field is only displayed when you have selected a *Primary Indication* AND set *Patient (to be) started on Apixaban?* to Yes.

The dose options offered are limited to those that are permitted for the selected Primary Indication.

For an individual patient, you can override this to select from *all* the permitted regimes set up for Apixaban. To do this, set '*Allow All Possible Regimes*' to Yes.

Initial (or only) Apixaban dose: (None Selected) ▼

Allow All Possible Regimes? ☐ Yes ☒ No

If the '*Allow All Possible Regies*' buttons are disabled and you wish to use this override facility, please get in touch with 4S for assistance.

If you have chosen a *VTE* type diagnosis AND the Initial Dose is *10 mg Twice Daily*:

2 additional fields are displayed in which to record the post-initiation dose & date.

Apixaban Dose:	Apixaban 2.5 mg Twice Daily
Suggested dose:	5mg taken twice daily
Dose Adjustment Required:	<input type="radio"/> No <input checked="" type="radio"/> Yes <span style="color: red;">Remember to update the regime in the treatment plan</span>
Reason for dose adjustment:	<div style="margin-left: 20px;"> <input type="checkbox"/> Weight Change  <input type="checkbox"/> Liver Function  <input type="checkbox"/> Renal Function  <input type="checkbox"/> Hematocrit Drop  <input type="checkbox"/> Adverse Event  <input type="checkbox"/> Interacting Medications  <input type="checkbox"/> Other         </div> <div style="margin-top: 10px;">           Adjustment Comments:  <div style="border: 1px solid #ccc; height: 40px; width: 100%;"></div> </div>

Additionally, if you have keyed a *Planned Apixaban Start Date*, advice on when to change the dose is displayed.

Please Note: If you need to change the permitted doses eg to offer additional dose options for a particular indication, please get in touch with 4S.

## 22.2.2 Non-VKA treatment plan

Non-vitamin K antagonist therapy is recorded on DAWN AC using a new treatment plan. Modules are available for different non-VKA agents, allowing protocols for initiation and follow-up of each type of therapy.

**Barnaby, Fitzherbert - Male - 06/06/1947 - F5 - 836 Dawn Villas, The Square, Milnthorpe**

Risk Class: Low  
 Pref. Clinic: (None selected)  
 Phone: - home  
 Age: 71

**Diagnosis**: ATRIAL FIBRILLATION NON VALVULAR ...  
 Target Range: Non-VKA  
 Start Date: 24/05/2019 - Indefinite  
 Anticoagulant: Dabigatran 110 mg Twice Daily

**Treatment Plan**: 2 of 2 active  
**Risks**

non-VKA therapies have a target range of 'non-VKA' rather than an INR target range

chosen dose for Dabigatran is shown on the main patient screen as the Anticoagulant regime

your patient may have a series of treatment plans but only one may be currently active

Any significant change in the patient's anticoagulation management should be recorded by stopping the existing treatment plan and starting a new treatment plan.

**NB** – DAWN AC will prevent a change of anticoagulant within an active treatment plan and require any existing treatment plan to be stopped.

DAWN AC provides INR and dosing screens for VKA (like warfarin) and questionnaires for non-VKA management. Each Questionnaire can be scheduled in advance and completed to store the important information for your patient. Complete all sections and mark as complete.

See sections on changing treatment plan / stopping a treatment plan / starting a treatment plan for a new patient / viewing patient history.

(back to Detailed Workflow page)

### 22.2.2.1 Starting a non-VKA treatment plan

The steps to starting a treatment plan for your patient on DAWN AC are outlined below as are the essential information you need for the treatment plan.

STEPS -

1. Add your patient to DAWN (see how to add a patient record) AND add an initiation questionnaire.

If your patient already has a record on DAWN AC, ensure any other anticoagulation treatment plan is stopped and click on Treatment Plan and 'New' to add a new treatment plan.

If your patient has no record on DAWN AC, the New button on the Patient Search screen will take you to the following 'New Patient Wizard' screen.

The screenshot shows the 'New Patient Wizard' interface. The 'Therapy' section includes fields for Disease area, Primary diagnosis, AC Therapy, Induction, Maintenance, Manual/Bridging, Induction algorithm, Target range, Start date, Duration, First seen date, Preferred clinic, Preferred time, Next test date, and Laboratory. The 'Dosing and Tablet Options' section includes fields for Use Dosing Regime?, Use Customised Tablet options?, Anticoagulant, Brand, Tablet Strength, and Show Total mg Dose Line. The 'Initial Status' section includes options for Set the status of the TreatmentPlan to Active, Set the status of the TreatmentPlan to Admitted, Set the status of the TreatmentPlan to Active Admitted, and Decide later. A yellow callout box points to the 'Regime' dropdown menu, stating: 'the Regime can be selected here or decided later (once Initiation Questionnaire completed)'. Another yellow callout box points to the 'Decide later' option under 'Initial Status', stating: 'always choose Decide later for non-VKA, then click Finish!'. The 'Finish' button at the bottom is circled in red.

2. Activate a treatment plan

The screenshot shows the 'Patient' screen for Wilma Watters. The 'Diagnosis' section includes fields for ATRIAL FIBRILLATION NON VALVULAR, Target Range, Start Date, and Anticoagulant. The 'Treatment Plan' section includes a link to 'New' and a 'Risks' section. A yellow callout box points to the 'Treatment Plan' link, stating: '2. Click on the Treatment Plan link here and then click on the Activate button to activate.' Another yellow callout box points to the 'Add a new record' button, stating: '1. add an Initiation Questionnaire'. The 'Questionnaires' tab is selected, showing 'There are no items to display'.

3. Schedule a Follow-up questionnaire (section 4.3)

The essential choices on a DAWN AC treatment plan are

- **Primary diagnosis** - must be listed as a therapeutic indication for the non-VKA

anticoagulant agent (contact your system administrator if you have problems activating your treatment plan).

Primary diagnosis

(None selected) ✕

Search for:

- STENT FITTED
- SUB ACUTE BACTERIO ENDOCARDI
- SUBCLAVIAN VEIN CLOT
- THR PROPHYLAXIS
- THROMBOEMBOLISM PROPHYLAXIS
- THROMBOTIC TEND ANTI T3 DEFIC
- THROMBOTIC TENDENCY LUPUS A/C
- THROMBOTIC TENDENCY PROTCDEFIC
- THROMBOTIC TENDENCY PROTSDEFIC
- THROMBOTIC TENDENCY UNSPEC
- TRANSIENT ISCHAEMIC ATTACKS
- TRICUSPID VALVE REP MECHANICAL
- UNSTABLE ANGINA
- VALVE REP MECHANICAL DOUBLE
- VALVE REP TISSUE DOUBLE
- VALVULAR HEART DISEASE UNSPEC
- VALVULAR REP MECHANICAL DOUBLE
- VALVULAR REPLACEMENT MECHANIC
- VALVULAR REPLACEMENT TISSUE
- VALVULAR REPLACEMENT UNSPEC
- VENTRICULAR SEPTAL DEFECT
- AFNV - ATRIAL FIBRILLATION NON VALVULAR
- ORTHO\_HIP - TOTAL HIP REPLACEMENT SURGERY
- ORTHO\_KNEE - TOTAL KNEE REPLACEMENT SURGERY
- RecDVT - RECURRENT DVT
- RecPE - RECURRENT PE

- **Target range** - must be 'non-VKA' for non vitamin K antagonists
- **Regime** - choose the dose

#### Dosing and Tablet Options

☒ Use Dosing Regime?

(None selected) ✕

Search for:

(None selected)

- Apixaban 2.5 mg Twice Daily
- Apixaban 10 mg Twice Daily
- Apixaban 5 mg Twice Daily
- Dabigatran 110 mg Twice Daily
- Dabigatran 150 mg Once Daily
- Dabigatran 150 mg twice daily
- Dabigatran 220mg once daily
- Dabigatran 75 mg Once Daily


- **Duration type** - short term requires a duration / long term has no duration

The treatment plan may not be activated without these selections but, if you do not have the details at hand, you can save the treatment plan and activate it later.

(back to Detailed Workflow page)

(back to FAQs page)

### 22.2.2.2 Changing a non-VKA treatment plan

 It is strongly recommended that you stop the treatment plan and start a new treatment plan for any significant change in the patient's anticoagulation. (section 4.2.3 and section 4.2.1)

For example,

- changing dose from 220mg once daily to 150mg once daily

Personal
Treatment plans
Questionnaires
Test Results
Interface Warnings

Anticoagulation (AC)

active


Start date24/05/2019 ⓘ  
DurationIndefinite  
Target rangeNon-VKA  
AnticoagulantDabigatran 150 mg Once Daily  
Referring GP-  
Consultant-

stopped

Start date01/05/2019 ⓘ  
DurationTreatment stopped - Stopped at: 24/05/2019 11:41  
Target rangeNon-VKA  
AnticoagulantDabigatran 220mg once daily  
Referring GP-  
Consultant-  
NotesIncreased Haemorrhagic risk


or

- changing the reason for anticoagulation

	Disease area	Primary Diagnosis	Start date	Duration in weeks	Status
	Anticoagulation	ORTHO_HIP - TOTAL HIP REPLACEMENT SURGERY (24/05/2019)	24/05/2019		active
	Anticoagulation	AFNV - ATRIAL FIBRILLATION NON VALVULAR (24/05/2019)	08/09/2018		stopped

Please Note: If you do stop the treatment plan, you will need to create a new DOAC initiation questionnaire before activating the new treatment plan.

For less significant changes such as a change to clinic or duration of treatment, click on the Treatment plan to edit and save your changes.

 Any changes to the treatment plan will be audited in the 'Audit' tab on the Treatment Plan screen like this -

**Dosing and Tablet Options**

☒ Use Dosing Regime? Dabigatran 150 mg Once Daily

☐ Use Customised Tablet options?

ReferralTransportAdmissionNotesVGRHistoryAudit

This treatment planTherapy phasesTest limits

**Change Log**

Date	Field	Changed From	Changed To
24/05/2019 11:48	fkiPreferredClinicID		Default Clinic (4S Dawn Clinical Software)
24/05/2019 11:48	iDurationInWeeks	12	14

(back to Detailed Workflow page)

### 22.2.2.3 Stopping a non-VKA treatment plan

For any significant change to a patient's anticoagulation, such as changing drug or restarting after a period on different or no anticoagulation, please stop the treatment plan and start a new treatment plan.

1. click on Treatment plan on the Patient screen
2. select a Cessation reason - mandatory only if cessation reasons are available on your DAWN AC database. *(this option may not be set up for your DAWN AC system)*
3. click on stop
4. click on OK to the pop-up box.

Patient: Barnaby Fitzherbert (06/06/1947) # F5 / Treatment plans: Anticoagulation: 24/05/2019

**Anticoagulation**

Primary DiagnosisORTHO\_HIP - TOTAL HIP REPLACEMENT SURGERY (24/05/2019)

Start date24/05/2019

First seen date

DurationShort Term

14 Weeks

Days

14 wks. Due to stop: 30/08/2019

Preferred clinicDefault Clinic (4S Dawn Clinical Software)

Preferred time

From

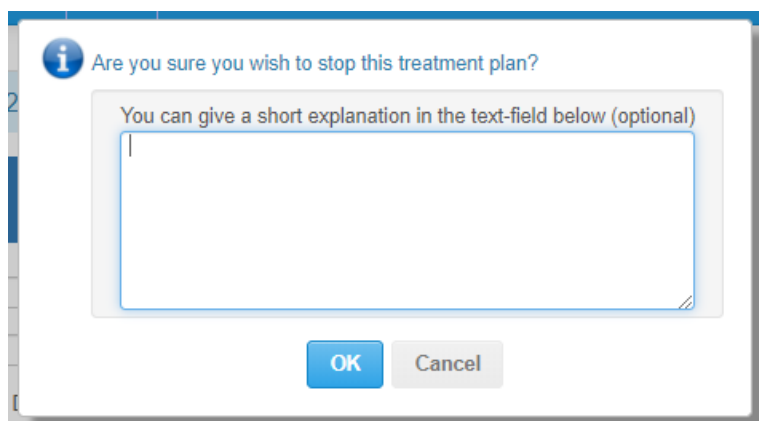
until

Statusactive

suspen

stop

dmitt



**i** Hint - add relevant details in the Notes tab as they will be easily viewed later on the Treatment Plans tab of the main patient screen like this.

Graph	History	Personal	Treatment plans	Questionnaires	Test Results	Interface Warnings
Anticoagulation (AC)						
active						
Start date	24/05/2019 <b>i</b>					
Duration	4 wks. Due to stop: 21/06/2019					
Target range	2.0 - 3.0 (2.5 Target)					
Anticoagulant	Warfarin 1mg Strength (in Mg / Daily Avg)					
Referring GP	-					
Consultant	-					
stopped						
Start date	24/05/2019 <b>i</b>					
Duration	Treatment stopped - Stopped at: 24/05/2019 11:53					
Target range	Non-VKA					
Anticoagulant	Dabigatran 150 mg Once Daily					
Referring GP	-					
Consultant	-					
Notes	Increasing GI upset - switching to warfarin for remaining 4 weeks (GP informed)					



Dosing and Tablet Options

☒ Use Dosing Regime?

Dabigatran 150 mg Once Daily

☐ Use Customised Tablet options?

ReferralTransportAdmission**Notes**VGRHistoryAudit

Increasing GI upset - switching to warfarin for remaining 4 weeks (GP informed)

Notes important☐

(back to Detailed Workflow page)

### 22.2.3 Follow-up Questionnaire

To review the dose for a patient on Dabigatran or other non-VKA agent, locate the patient record using either the search facility or the list view.

Once you locate the patient record:

- complete a Follow-up Questionnaire (section 4.3)

**AND**

- add another Follow-up questionnaire scheduled for the next review date. (section 4.3.1)

(back to Complete a Follow-up page)

(back to Detailed Workflow page)

#### 22.2.3.1 Schedule a Follow-up (Non-VKA)

Dabigatran Follow Up

Patient Name:

Fitzherbert Barnaby

Due Date:

23/05/2019

23/05/2019

at: 00 : 00

24hr format

**NB** Please check this appointment is made in your clinic diary or hospital administration system.

Unit No:

F5

to be completed at

(None selected)

Status



Scheduled

On adding a Follow-up Questionnaire, change the 'Due Date' to the date you will complete the details.

Click OK at the bottom of the Questionnaire screen to save this Follow-up with the scheduled date.



You will find the questionnaire on the questionnaires tab for later completion.

Personal	Treatment plans	Questionnaires	Test Results	Interface W
Add a new record → 1 - 2 / 2				
QuestionnaireType		Entry date	Summary	
	Dabigatran Follow Up	23/05/2019	Scheduled	
	Dabigatran Initiation	20/12/2018	Complete: CrCl: 6l	

Click here to learn how to schedule the questionnaire into a clinic diary

[Schedule an Assessment in a C](#)

(back to Complete a Follow-up page)

(back to Detailed Workflow page)

(back to Starting a Non-VKA Treatment Plan page)

### 22.2.3.2 Complete a Follow-up (Non-VKA)

The Follow-up Questionnaire will display details from the patient's treatment plan as shown. It is not possible to schedule a Follow-up Questionnaire for this non-VKA agent unless an active treatment plan for this agent has been set.

## Treatment Plan Summary:

Diagnosis:	ATRIAL FIBRILLATION NON VALVULAR
Regime:	Dabigatran 110 mg Twice Daily
Start Date:	24/05/2019
Duration:	Long Term
Status:	active
Notes:	GP requested consideration of switch to DOAC due to lifestyle

## Questions:

Visit Type:	(None selected) ▼
Therapeutic Indication:	ATRIAL FIBRILLATION NON VALVULAR
Duration of use?	Indefinite
Age (at due date):	80
Dabigatran Dose:	Dabigatran 110 mg Twice Daily

The questions cover

- compliance issues (patient questions and reasons for compliance issues)
- adverse events
- renal function including a calculator for Cockcroft-Gault estimate of CrCl
- records for liver function or other tests
- contraindicated or interacting drugs including other anticoagulants or platelet inhibitors
- contraindicated conditions and haemorrhagic risks
- records for CHA2DS2VASc and HASBLED scores
- notes for planned procedures or other comments

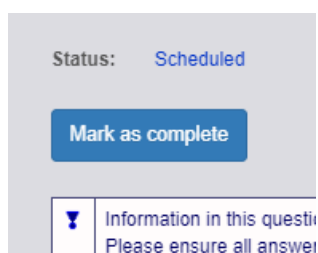
Please Note - Not all of the above items are on the Apixaban Audit Tool. See Apixaban Audit Tool - Completing a Follow-up for details.

If you cannot answer some questions, simply click OK or Save and come back later to complete the answers.


✓ OK	✗ Cancel
------	----------

Once you have answered all questions, check the existing dose (as set on the treatment plan) carefully. If it requires adjusting, set the 'Dose Adjustment Required' option to Yes. A list of reasons for adjustment and comments box is then displayed.

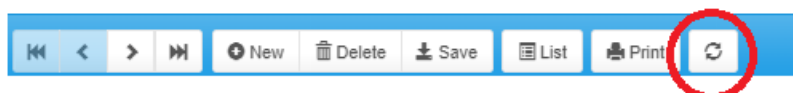
Then click on 'Mark as complete' and then schedule another Follow Up for your patient if relevant. See details of the Follow-up Questionnaire. (section 4.3.1 and section 4.3)



On marking the answers as complete you are confirming that DAWN AC can store this record and display a summary on the questionnaires tab.

**Following completion of the questionnaire, update the treatment plan with any  changes eg to the regime, duration.**

If you've added some details in error, Cancel your changes using 'Cancel' or the rewind button at the top of the screen -



If you need to delete a questionnaire completely, look for the bin symbol on the questionnaires tab and save before confirming you wish to delete this record:

QuestionnaireType	Entry date	Summary
 Dabigatran Follow Up	24/05/2019	Scheduled
Dabigatran Follow Up	23/05/2019	Overdue
Dabigatran Initiation	20/12/2018	Complete: CrCl: 600 mL/min (cre: 75 µmol/L, Wt: 65 kg) - Dose: 220 mg once daily

If you need to add more information or adjust the Follow-up Questionnaire which is already completed:

1. locate the completed questionnaire on the Questionnaires tab

2. select Unlock to edit

Unlock to edit

3. save your changes

**NB** - unlocking a previous questionnaire to edit it may cause the details to be updated with subsequent changes to the patient details. For example, if the patient was previously on an interacting drug which was later removed from your DAWN AC database, the drug would still be stored in the old completed questionnaire. On unlocking the old questionnaire, the record for this drug may no longer be available.

(back to Detailed Workflow page)

### 22.2.3.2.1 Patient questions

It may be useful to record patient feedback on the following questions in the Follow Up Questionnaire. For example, in Dabigatran:

Over the past two weeks:	
I have taken the correct dose every day	<input type="radio"/> No <input type="radio"/> Yes
I might have taken too many capsules / tablets	<input type="radio"/> No <input type="radio"/> Yes
I might have missed one or more doses	<input type="radio"/> No <input type="radio"/> Yes
I take more than 3 other medications regularly	<input type="radio"/> No <input type="radio"/> Yes
Stomach upset / burning / pain (0-9)	<div><div>No effect (0)</div><div>(Make a choice)</div><div>No effect (0)</div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div><div>Severe (9)</div></div>

(back to Complete a Follow-up page)

### 22.2.3.2.2 Reasons for compliance problems

Please tick any of the compliance problems which apply to your patient. These problems may be important in dosing decisions.

Reasons for compliance problems:

- ☐ Dementia
- ☐ Fear of side-effects
- ☐ Gastroesophageal Reflux Disease
- ☐ Gastrointestinal Bleed
- ☐ Lack of information
- ☐ Lives alone
- ☐ Multiple medications
- ☐ Other
- ☐ Prescriptions from several doctors

The list of compliance problems may be edited / added to by your system administrator using the General Look Up Category Table called 'ComplianceReason'.

(back to Complete a Follow-up page)

### 22.2.3.2.3 Adverse events reported

Please tick any of the adverse events which apply to your patient. These events are identified in prescribing guidelines as significant events for consideration in dosing decisions.

Has the patient reported any adverse event (potentially due to current anticoagulant)?:

- ☐ Anaemia
- ☐ Bruising
- ☐ Blood in stools or melaena
- ☐ Epistaxis
- ☐ Haematoma
- ☐ Menorrhagia
- ☐ Vomiting blood
- ☐ Other (Please Specify)

The list of adverse events may be edited / added to by your system administrator using the General Look Up Category Table called 'Adverse Bleed Events'.

If any adverse events are ticked, extra fields are displayed as follows:

Patient recommended to go to emergency department for evaluation? ☐ Yes ☐ No

Adverse event comments:

**NB** - any events identified on the Follow-up Questionnaire will **NOT** automatically display on the Events tab of your patient screen.

Please click on 'Events' tab to fully record events on the patient screen.

(back to Complete a Follow-up page)

#### 22.2.3.2.4 Renal function

Estimates of renal function may be recorded in several ways on the Follow Up Questionnaire and these will show contraindications / warnings where renal function is impaired:

- measured creatinine clearance (laboratory estimation)
- serum creatinine
- Cockcroft-Gault estimation of creatinine clearance
- other measures may be recorded in the notes box

Guidelines recommend using an estimate of creatinine clearance rather than an eGFR calculation when dealing with patients on Dabigatran anticoagulation. DAWN AC provides a calculator for estimating renal function from serum creatinine and body weight. Enter these 2 values and click on the 'Calculate Cockcroft-Gault CrCL'.

Measured Creatinine Clearance:	<input type="text"/>	mL/min
eGFR:	<input type="text"/>	mL/min
Serum Creatinine:	<input type="text"/>	<input type="radio"/> US (mg/dL) <input checked="" type="radio"/> SI (μmol/L) *
Body Weight:	<input type="text"/>	kg *
Gender:	Male	
Age (at due date)	63	
Estimated CrCl (Cockcroft-Gault):	<input type="text"/>	mL/min
	<small>Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.</small>	
Other Blood Checks:	<input type="text"/>	

Note - if you have a laboratory estimation which is less than a numeric value (like <30), please enter the number (like 30) in the Measured Creatinine Clearance or Serum Creatinine boxes. Similarly for results which are reported as greater than a value (like > 220), please enter the numeric value (like 220).

The limits used for creatinine clearance differ according to which anticoagulant you are using. For dabigatran, they are set as follows in DAWN -

less than 30	severe
greater than equal to 30 and	moderate
less than 50	
greater than equal to 50	mild

For rivaroxaban and apixaban, the threshold for severe renal impairment is 15 rather than 30.

**Please Note:** you can record serum creatinine results in mg/dL (as used in the USA) or in

µmol/L (as used in the UK). Please choose the radio button for the appropriate units. If you need to change the radio button, consider changing the default setting so that it will default correctly in the future.

To change the default setting, amend the *DefaultSerumCreatinineUnits* system setting, entering 1 for mg/dL or 2 for µmol/L. The initial value of the system setting is set according to your date format. If your system uses MM/DD/YYYY as the date format, the *DefaultSerumCreatinine* units is initially set to 1 for mg/dL. Otherwise it is initially set to 2 for µmol/L.

### Upgrading from an earlier version of the Non-VKA module

The ability to specify which units you use for serum creatinine, was introduced in an upgrade to the Non-VKA module that was released in Jan 2016. Earlier versions only allowed serum creatinine results to be entered in µmol/L. If you upgrade from an earlier version, DAWN remembers the date of the upgrade. If you open a questionnaire with a due by date that predates the upgrade and the questionnaire already has a result for serum creatinine, the result is assumed to be in µmol/L as that was the only option available when the result was entered, even if the default for new questionnaires is mg/dL.

The DAWN system alerts you if you add an unusually low or high serum creatinine or body weight measurement. If you get a warning message, please check the details you entered carefully.

(back to Complete a Follow-up page)

#### 22.2.3.2.5 Hepatic impairment

If your patient is known to have hepatic impairment, tick the Hepatic impairment checkbox. In some studies, hepatic impairment is defined as liver enzyme results greater than twice the upper limit of normal.

Hepatic Impairment:

☐ Liver Enzymes > 2ULN

Other Blood Checks:

You may wish to add details of other blood tests in the notes box for later reference.

Note - some anticoagulants may not be recommended in patients with known hepatic impairment.

(back to Complete a Follow-up page)



### 22.2.3.2.6 Contraindicated drugs

Some concomitant drugs may be known to be contraindicated for the chosen anticoagulant as published in the prescribing guidelines. Please tick any drugs if your patient is currently prescribed this drug.

#### Contraindicated Drugs:

- ☐ CICLOSPORIN
- ☐ DRONEDARONE
- ☐ ITRACONAZOLE
- ☐ KETOCONAZOLE
- ☐ TACROLIMUS

The list of drugs displayed are defined in the Look Up Tables on your DAWN AC database and additional drugs may be added to this list as required. Please contact your system administrator to add new drug settings to the 'Interacting Drugs' table.

(back to Complete a Follow-up page)

### 22.2.3.2.7 Interacting drugs

Some interacting drugs may be known to increase the haemorrhagic risk if used along with the chosen anticoagulant. See relevant published prescribing guidelines. Please tick any drugs if your patient is currently prescribed this drug.

#### Interacting Drugs:

- ☐ AMIODARONE
- ☐ ASPIRIN
- ☐ CLARITHROMYCIN
- ☐ CLOPIDOGREL
- ☐ OTHER NSAIDs
- ☐ QUINIDINE
- ☐ TICAGRELOR
- ☐ VERAPAMIL

Selecting one or more listed drugs will cause some advice to be displayed on screen like this:

#### Interacting Drugs:

- ☐ AMIODARONE
- ☐ ASPIRIN
- ☐ CLARITHROMYCIN
- ☒ CLOPIDOGREL
- ☐ OTHER NSAIDs
- ☒ QUINIDINE
- ☐ TICAGRELOR
- ☐ VERAPAMIL

#### CLOPIDOGREL:

Close clinical surveillance (looking for signs of bleeding or anaemia)

#### QUINIDINE:

For prevention of VTEs after hip or knee surgery, dosing should be reduced to 150mg per day taken once daily as 2 capsules of 75mg dabigatran etexilate. Close clinical surveillance particularly in the occurrence of bleeding, notably in patients having a mild to moderate renal impairment

The list of drugs displayed and the advice displayed on screen are defined in the Look Up Tables on your DAWN AC database. Updates to the advice or additional drugs may be added to this list as required. Please contact your system administrator to add new drug settings to the 'Interacting Drugs' table.

(back to Complete a Follow-up page)

### 22.2.3.2.8 Other anticoagulant or platelet inhibitor

It is important to record any other anticoagulant or platelet inhibitor prescribed alongside the non-VKA agent even if this for a short period.

Other anticoagulant or platelet inhibitor:

- ☐ Abciximab
- ☐ Eptifibatide
- ☐ Heparin
- ☐ Prasugrel
- ☐ Sinthrome
- ☐ Ticagrelor
- ☒ Warfarin
- ☐ (Other)

If (other), please give details:

to continue 1mg per day until Tuesday 28th

The list of drugs displayed may be added to or edited in the General Lookup Category for 'Anticoagulant or Platelet Inhibitors' - please contact your system administrator to arrange changes to the displayed options.

(back to Complete a Follow-up page)

### 22.2.3.2.9 Other contraindications

Please tick any of the other contraindications which apply to your patient. These risks are identified in prescribing guidelines as contraindications for dosing with the non-VKA agent.

Other contraindications:

- ☐ Active clinically significant bleeding
- ☐ Hepatic impairment or liver disease expected to have any impact on survival
- ☐ Hypersensitivity to dabigatran etexilate
- ☐ Hypersensitivity to sunset yellow (E110)
- ☐ Organic lesion at risk of bleeding
- ☐ Prosthetic Heart Valve
- ☐ Severe renal impairment (CrCl<30ml/min)
- ☐ Spontaneous or pharmacological impairment of haemostasis

The list of contraindications displayed on the Follow-up Questionnaire may be edited / added to by your system administrator using the Look Up Tables called Risks and Specific Risks.

NB - any risks identified on the Initiation Questionnaire will **NOT** automatically display at the top-left of your patient screen. You may wish to highlight these manually on the patient screen either by adding Risks for a new patient or clicking on the 'Risks' button to add risks for an existing patient screen.

Risk Class	Low
Pref. Clinic	(None selected)
Phone	- home
Age:	71

Diagnosis	ATRIAL FIBRILLATION NON VALVULAR ...
Target Range	Non-VKA
Start Date	24/05/2019 - Indefinite
Anticoagulant	Dabigatran 110 mg Twice Daily
Treatment Plan	< 2 > of 2 active
Risks	

(back to Complete a Follow-up page)

#### 22.2.3.2.10 Haemorrhagic risks

Please tick any of the risks which apply to your patient. These risks are identified in prescribing guidelines as significant risks for consideration in dosing decisions for the non-VKA agent.

##### Haemorrhagic Risks:

- ☐ Active ulcerative GI disease
- ☐ Bacterial endocarditis
- ☐ Brain, spinal or ophthalmic surgery
- ☐ Congenital or acquired coagulation disorder
- ☐ Recent biopsy or major trauma
- ☐ Recent gastrointestinal bleeding
- ☐ Recent ICH
- ☐ Thrombocytopenia or functional platelet defects

The list of haemorrhagic risks may be edited / added to by your system administrator using the Look Up Tables called Risks and Specific Risks.

NB - any risks identified on the Follow-up Questionnaire will **NOT** automatically display at the top-left of your patient screen - see adding Risks for a new patient or click on 'Risks' button to add risks on the patient screen.

(back to Complete a Follow-up page)

#### 22.2.3.2.11 CHADS<sub>2</sub> and HASBLED scores

CHA<sub>2</sub>DS<sub>2</sub>-VASc and HASBLED scores may be optionally recorded from the dropdown menus on your questionnaire.

CHA<sub>2</sub>DS-<sub>2</sub>VASc score?

(None selected)

(None selected)

0

1

2

3

4

5

6

7

8

9

HASBLED score?

(None selected)

(None selected)

0: Risk was 0.9% in one study

1: Risk was 3.4% in one study

2: Risk was 4.1% in one study

3: Risk was 5.8% in one study

4: Risk was 8.9% in one study

5: Risk was 9.1% in one study

6: Risk > 9.1%

7: Risk > 9.1%

8: Risk > 9.1%

9: Risk > 9.1%

The dropdown options are provided from the settings in your DAWN AC Normal Tables, General Lookup Category (CHA<sub>2</sub>DS<sub>2</sub>-VASc Score and HASBLED). You may wish to request that your system manager updates the options available.

(back to Complete a Follow-up page)

(back to Settings for General Lookup Category page)

#### 22.2.3.2.12 Rivaroxaban and Apixaban patients still on VTE Induction Doses

For Rivaroxaban & Apixaban patients still on VTE induction doses when the Follow-up questionnaire is being completed, the questionnaire notes that that the patient is still on the induction dose; and displays the candidate questionnaire & treatment plan start dates and the elapsed days including 'today'.

For example:

Rivaroxaban Dose:

Rivaroxaban 15 mg Twice Daily

**Note:** Dose (above) recorded on Treatment Plan is an Induction Dose

Candidate Questionnaire - Planned Start Date : 14/05/2019, 11 day(s) including today  
Treatment Plan Start Date: 09/05/2019, 16 day(s) including today

Suggested dose:

15mg twice daily for three weeks and then 20mg once daily


If either of these elapsed days means it is approaching or has passed the time to change to the maintenance dose, the note turns red.

NB these start dates are an information aid only and are not to be relied upon without checking, it is possible that the patient started the DOAC on a different date to either of these dates.

### 22.2.3.2.13 Dose Suggestion and Adjustment

Once you have answered all questions, check the existing dose (as set on the treatment plan) and the suggested dose (if displayed, not applicable for Dabigatran) carefully. If it requires adjusting, set the 'Dose Adjustment Required' option to Yes. A list of reasons for adjustment and comments box is then displayed.

Apixaban Dose:	Apixaban 2.5 mg Twice Daily
Suggested dose:	5mg taken twice daily
Dose Adjustment Required:	<input type="radio"/> No <input checked="" type="radio"/> Yes Remember to update the regime in the treatment plan
Reason for dose adjustment:	<input type="checkbox"/> Weight Change <input type="checkbox"/> Liver Function <input type="checkbox"/> Renal Function <input type="checkbox"/> Hematocrit Drop <input type="checkbox"/> Adverse Event <input type="checkbox"/> Interacting Medications <input type="checkbox"/> Other
Adjustment Comments:	<div style="border: 1px solid #ccc; height: 40px; width: 100%;"></div>

**Following completion of the questionnaire, update the treatment plan with any  changes eg to the regime, duration.**

The list of reasons for adjustments may be edited / added to by your system administrator using the General Look Up Category Table called 'Reasons For Dose Change'.

### 22.2.3.2.14 Apixaban Audit Tool - Completing a Follow-up



**Pfizer Limited (Pfizer) on behalf of the Bristol-Myers Squibb (BMS) - Pfizer Alliance funded the initial development of and made a contribution to the cost of the initial licence fees of this Apixaban (Eliquis®) software module, however neither Pfizer nor BMS any longer owns, manages or is responsible for this module or any associated content. Any adverse events should be reported to the MHRA via the yellow card reporting system which can be found at [www.mhrr.gov.uk/yellowcard](http://www.mhrr.gov.uk/yellowcard)**

For this questionnaire, the sections:

- Patient questions
- Reasons for compliance problems
- Adverse events reported

- CHADS and HASBLED scores
- Renal function for the Apixaban Audit Tool

are as described above.

In contrast to the other non-VKA questionnaires, the Apixaban Audit Tool does not have lists of possible contraindicated & cautioned drugs etc and other preventions/warnings. Instead, this questionnaire captures the keyed patient information and the decision as to whether to continue to prescribe Apixaban to this patient:

Patient to be continued on Apixaban?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Planned Duration:	<input type="text"/>

Click Yes to record that the patient is to be continued on Apixaban. This will display a notes field to capture intended duration and some patient discussion reminders.

Click No to record that the patient is not to be continued on Apixaban. This will hide any non-relevant fields. If this case, you should set the treatment plan to stopped and arrange for any follow-on activities. If you click No, you can explain why in the Notes field.

#### 22.2.3.2.14.1 Renal function for the Apixaban Audit Tool

Estimates of renal function may be recorded in several ways on the Apixaban Audit Tool Questionnaires:

- measured creatinine clearance (laboratory estimation)
- eGFR
- serum creatinine
- Cockcroft-Gault estimation of creatinine clearance
- other measures may be recorded in the Other Tests box

Measured Creatinine Clearance:	<input type="text"/>	mL/min
eGFR:	<input type="text"/>	mL/min
Serum Creatinine:	<input type="text"/>	<input type="radio"/> US (mg/dL) <input checked="" type="radio"/> SI (μmol/L) *
Body Weight:	<input type="text"/>	kg *
Gender:	Male	
Age (at due date)	63	
Estimated CrCl (Cockcroft-Gault):	<input type="text"/>	mL/min
	<small>Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.</small>	
Other Blood Checks:	<input type="text"/>	

Note - if you have a laboratory estimation which includes eg a greater than or less than symbol (eg <30 or >220) or similar, please enter the numeric value *number* (eg 30) in the field.

The DAWN system alerts you if you add an unusually low or high serum creatinine or body weight measurement. If you get a warning message, please check the details you entered carefully.

**Please Note:** you can record serum creatinine results in mg/dL (as used in the USA) or in µmol/L (as used in the UK). Please choose the radio button for the appropriate units. If you need to change the radio button, consider changing the default setting so that it will default correctly in the future.

## 22.2.4 FAQ - non-VKA records on DAWN AC

**Q** Problems activating a treatment plan

**A** Check the following:

1. Is the patient marked 'Active' on the <b>Personal</b> tab?	You may need to click on 'Activate' or Re-activate'
2. Is an Initiation Questionnaire showing with a dose on the <b>Questionnaires</b> tab?	You may need to complete a questionnaire which is still marked as 'Scheduled'
3. Do the Initiation Questionnaire and Treatment Plan have different details?	Check that the same diagnosis and dose have been chosen in both the treatment plan and Initiation Questionnaire
4. Is the Initiation Questionnaire marked as 'contraindicated'?	Check that the therapy is suitable for the age / diagnosis / other medications - if it is, your DAWN AC settings may need to be updated by your system manager - contact support@4s-DAWN.com for assistance

**Q** Why is my patient not on the non-VKA list view?

**A** Check the following -

1. Has the patient got a DAWN AC treatment plan for the non-VKA agent?	See adding a new treatment plan
2. Have you chosen a date or clinic filter on the left of the non-VKA list view which excludes this patient?	Adjust the filters on the left of the list view to see all patients with a non-VKA treatment plan

**Q** Why do I get 'Contraindicated' warnings?

**A** Contraindications may be for inappropriate concurrent medications (see interacting drugs) or risks (see haemorrhagic risks) or age / renal function.

**Q** What is an 'Age alert'?

**A** Patient ages over 75 or 80 years will result in 'Age alert' appearing on the non-VKA list view where the dose of Dabigatran is unexpectedly high:

Name	Hospital no.	Age	Appointment Date	Time	Clinic	Summary	Regime	Questionnaire	Status
Barnaby, Fitzherbert	F5	81	24/05/2019			*Age ALERT* Scheduled	Dabigatran 220mg once daily	Dabigatran Follow Up	Scheduled (active treatment plan)

**Q** The dose I need to use isn't available on the DAWN AC screen?

**A** Your DAWN AC settings may need to be updated by your system manager - contact support@4s-DAWN.com for assistance

**Q** Where is the INR -warfarin history for my patient now?

**A** View previous treatment plans using the blue arrow on the patient screen and you'll see the History panel for any VKA episode of treatment.

**Barnaby, Fitzherbert - Male - 06/06/1938 - F5 - 836 Dawn Villas, The Square, Milnthorpe**

Risk Class: Low

Pref. Clinic: (None selected)

Phone: - home

Age: 80

**Diagnosis** TOTAL HIP REPLACEMENT SURGERY ...

Target Range: Non-VKA

Start Date: 23/05/2019 - Indefinite

Anticoagulant: Dabigatran 220mg once daily

**Treatment Plan** < 2 of 2 active

**Risks**

(back to Detailed Workflow page)



## 22.2.5 Configurable Options for the Non-VKA questionnaires

NB the following items do not apply to the Apixaban Audit Tool unless otherwise stated below

Item	Where	Details
Adverse event reporting in follow-ups	<b>All follow-ups &amp; Apixaban Audit Tool</b>	<p>You can choose what to display here and what website to link to.</p> <p>To change them, edit the Event Reporting options in the GeneralLookupCategory, ask 4S Support for assistance.</p>
Web links for Regime Info	<b>All questionnaires &amp; Apixaban Audit Tool</b>	<p>For example:</p> <div> <p>Please use your clinical judgement before deciding on the most appropriate dose. It is your responsibility to regularly check the manufacturer's recommendations for updates.</p> <p>Click the link(s) below for more details on:</p> <ul style="list-style-type: none"> <li>Apixaban Tablets 2.5 mg</li> <li>Apixaban Tablets 5 mg</li> </ul> </div> <p>To change them, you need to edit the DrugCoURL options in the GeneralLookupCategory, ask 4S Support for assistance.</p>
Replace Chads2 with CHA2DS-2VASc 2	<b>Rivaroxaban/ Edoxaban candidate &amp; follow-up questionnaires</b>	The Chads2 field can be replaced with CHA2DS-2VASc2 if preferred. To do this, edit the system setting <i>ChadsNOAC</i>
Hide the Suggested Dose	<b>All questionnaires</b>	<p>This field can now be hidden using the system setting - <i>DOAC_DisplaySuggestedDose</i>.</p> <p>The <i>Suggested Dose</i> is based solely on the original manufacturers' recommendations alone and does not take into account any customisations you make to the Permitted Regimes table - in particular, the Clinical Advice you can add or update for each regime. In order to prevent an inconsistent or misleading suggestion, you should <a href="#">hide</a> the <i>Suggested Dose</i> if you make significant changes to the Permitted Regimes table.</p>
Renal Limit for Contraindication	<b>Dabigatran candidate &amp; follow-up only</b>	<p>There is now a system setting entitled <i>DOAC_Renal_Contra_Limit_DABIG</i></p> <p>It defaults to 30 mL/min, but can be changed to a minimum of 15 mL/min. If this limit is breached, a warning message is displayed saying <i>Contraindicated : Severe renal impairment</i> and the questionnaire will be rendered as 'contraindicated'.</p>

Indicate that patient does or does not require induction dosing	<b>Rivaroxaban/ Apixaban candidate only</b>	<p>Does the patient require induction phase of treatment? <input type="radio"/> No <input checked="" type="radio"/> Yes</p> <p>By default, this field is hidden. You can display it using system setting - <i>DOAC_Fields_To_Hide</i>.</p> <p>If it is displayed and set to No:</p> <ul style="list-style-type: none"> <li>the Day 7 (Apixaban)/Day 22 (Rivaroxaban) dates are not displayed</li> <li>the suggested dose is the maintenance one rather than the "induction then maintenance" one</li> </ul>
Education	<b>All questionnaires</b>	<p>This question(s) will appear near the end of the QNR to help you record how long was spent educating the patient about the DOACs</p> <p>Education: Time spent <input type="text" value="(None selected)"/></p> <p>Education: Materials mailed <input type="radio"/> No <input type="radio"/> Yes</p> <p>Ongoing Education: Time spent <input type="text" value="(None selected)"/></p> <p>NB These fields are hidden by default, you can display them using system setting - <i>DOAC_Fields_To_Hide</i>.</p>
Medication Procurement Due to insurance issues	<b>All questionnaires</b>	<p>Medication Procurement Due to Insurance issues <input type="radio"/> No <input checked="" type="radio"/> Yes</p> <p>Medication Procurement: Time spent <input type="text" value="(None selected)"/></p> <p>Prior Auth Required <input type="radio"/> No <input type="radio"/> Yes</p> <p>Medication Switch Required <input type="radio"/> No <input type="radio"/> Yes</p> <p>If "Medication Procurement Due to insurance issues" is set to Yes, 3 extra fields are displayed below it.</p> <p>NB These fields are hidden by default, you can display them using system setting - <i>DOAC_Fields_To_Hide</i>.</p>
Extra fields that can be hidden if	<b>All questionnaires</b>	In addition to the fields described above, the following fields can also be hidden if not required within your organisation:

not required		<ul style="list-style-type: none"> <li>• Yellow Card (image and link)</li> <li>• Who will manage AC?</li> <li>• Egfr</li> <li>• Chads/CHA2DS2VASC</li> <li>• HASBLED</li> </ul> <p>using system setting - <i>DOAC_Fields_To_Hide</i> See the description within the system setting for details of how to hide/display.</p>

## 22.3 Changing Anticoagulant

You may wish to record changes in your patient's anticoagulation on DAWN AC when:

- Changing between different VKA's (like Warfarin and phenindione) - section 7.1
- Changing type of non-VKA (like Dabigatran to Rivaroxaban) - section 7.2
- Changing between VKA and non-VKA (like Warfarin to Dabigatran or *vice versa*) - section 7.3

(back to Detailed Workflow page)

### 22.3.1 Changing between different VKA's

In DAWN AC, stop the treatment plan and start a new treatment plan for a change in the patient's anticoagulant.

The screenshot shows the 'Anticoagulation' form in DAWN AC. The form includes the following fields and values:

- Primary Diagnosis:** - ATRIAL FIBRILLATION (24/05/2019)
- Start date:** 23/04/2019
- First seen date:** (empty)
- Duration:** Long Term
- Indefinite:** Indefinite
- Preferred clinic:** Default Clinic (4S Dawn Clinical Software)
- Preferred time:** From (empty) until (empty)
- Status:** active
- Buttons:** stop, Admit

A red arrow points to the 'stop' button, which is highlighted by a tooltip that reads: 'First STOP any existing Treatment plan'.

Note - DAWN AC will prevent a change of anticoagulant within an active treatment plan.

(back to Changing Anticoagulant page)

### 22.3.2 Changing type of non-VKA

It is strongly recommended that you stop the treatment plan and start a new treatment plan for any significant change in the patient's anticoagulation.

Personal Treatment plans Questionnaires Test Results Interface Warning

Anticoagulation (AC)

active

Start date	23/05/2019
Duration	Indefinite
Target range	Non-VKA
Anticoagulant	Dabigatran 110 mg Twice Daily
Referring GP	-
Consultant	-

stopped

Start date	01/01/2019
Duration	Treatment stopped - Stopped at: 23/05/2019 16:23
Target range	Non-VKA
Anticoagulant	Edoxaban 30 mg Once Daily
Referring GP	-
Consultant	-

(back to Changing Anticoagulant page)

### 22.3.3 Changing between VKA and non-VKA

In DAWN AC, stop the treatment plan and start a new treatment plan for a change in the patient's anticoagulant.

Anticoagulation

Primary Diagnosis - ATRIAL FIBRILLATION (24/05/2019)

Start date 23/04/2019 First seen date

Duration Long Term Indefinite

Preferred clinic Default Clinic (4S Dawn Clinical Software)

Preferred time From until

Status active

First STOP any existing Treatment plan

stop Admit


Note - DAWN AC will prevent a change of anticoagulant within an active treatment plan.

(back to Changing Anticoagulant page)

## 22.4 Viewing Patient History

Your patient may have several consecutive treatment plan records and only one of these may be active for their current anticoagulation.

message template ▼ + alert ▼

 Barnaby, Fitzherbert - Male - 06/06/1966 - F5 - 836 Dawn Villas, The Square, Milnthorpe


Risk Class	Low ▼
Pref. Clinic	(None selected) ▼
Phone	- home ▼
Age:	52

Diagnosis	ATRIAL FIBRILLATION NON VALVULAR ...
Target Range	Non-VKA
Start Date	23/05/2019 ⓘ - Indefinite
Anticoagulant	Dabigatran 150 mg twice daily
Treatment Plan	< 2 > of 2 active
Diets	

To see previous treatment plans, click on the 'Treatment Plans' tab bottom-right on your patient screen.

Personal **Treatment plans** Questionnaires Test Results Interface Warnings

 Anticoagulation (AC)

active

Start date	23/05/2019 ⓘ
Duration	Indefinite
Target range	Non-VKA
Anticoagulant	Dabigatran 150 mg twice daily
Referring GP	-
Consultant	-

stopped

Start date	07/09/2018
Duration	Treatment stopped - Stopped at: 23/05/2019 10:40
Target range	2.0 - 3.0 (2.5 Target)
Anticoagulant	Warfarin 1mg Strength (in Tablets / Weekly Total)
Referring GP	-
Consultant	-



If your patient does not have a current active treatment plan record on DAWN, the patient may not appear on the list of scheduled patients.

## 22.5 Handling Non-Attendance for non-VKA Patients

This section explains how to:

- Find patients overdue for review
- Record any necessary action
- Generate a letter (or e-mail) to the non-attending patient

See the following sections for more information:

Using the list view to find patients who are overdue for follow-up

Changing the treatment plan

### 22.5.1 Non-VKA list view - identifying non-attenders

Go to the non-VKA list view and filter on 'Overdue'

**List View** ✕

\*Age alert\* indicates patients over 75 on unexpectedly high dose.

Clinic may be filtered as the clinic chosen for the assessment or follow-up questionnaire (rather than the preferred clinic).

'All roles' filter for GP linked to latest treatment plan.

Filter Records

With Overdue

Dates (Any date)

Clinic >

Therapy >

HCP/Prof/Team >

Duplicate ID Worklist Annual Review Reminders Reviews Hold Monitor Listview In reprocessing **Non-VKA**

Poor Performing Patient List Non attendance Messages Phone List Post Clinic Check Status No Next Test Date

Procedures Events Risks Dabigatran Treatment Notes

Filter With Overdue

6 records found.

Name	Hospital no.	Age	Appointment	Regime	Questionnaire	Status
DABIGATRAN, Lower Dose	75mgbd	90	12/08/2013	Dabigatran 75 mg Twice Daily	Dabigatran Initiation	Overdue
ADAMS, John	999	61	20/11/2014	Warfarin Mixed Tablets (plain text / Daily Avg)	Dabigatran Follow Up	Overdue
GREEN, Caroline	H31871	104	29/01/2015	Dabigatran 110 mg twice daily	Dabigatran Follow Up	Overdue
DABIGATRAN, Ian	DAB123	89	14/02/2017	Dabigatran 150 mg twice daily	Dabigatran Initiation	Overdue
DABIGATRAN, Ian	DAB123	89	20/02/2017	Dabigatran 150 mg twice daily	Dabigatran Follow Up	Overdue
BILLIN	B29700	57	20/05/2019	Dabigatran 75 mg Twice Daily	Dabigatran Follow Up	Overdue

Click to see the full patient record

The 'Overdue' filter is selected

The status shows whether a patient has no appointment scheduled, a scheduled appointment or an overdue appointment.



**Note - The With / Without option top-left only applies to the top filter (Overdue in this case).**

The Patient Search and Reports screens also provide searches on your DAWN AC database

for patients on different anticoagulants.

## 22.5.2 non-VKA patient screen

Dosing Contacts Letters Drugs 4 Events 1 Procedures Reviews Reminders 1 Groups D

INR:  ★ ✓ Date: 21/06/2019 ✓ ↺ (Scheduling info not available anymore) Schedule

Treatment Notes

Accept INR DNA Un-schedule Scheduled

Graph History Personal Treatment plans Questionnaires Test Results Interface Warnings

+ Add a new record → 1 - 1 / 1

	QuestionnaireType	Entry date	Summary
	Dabigatran Follow Up	20/11/2014	Overdue

## 22.5.3 Non-attendance process

If a patient fails to attend for a review of their non-VKA therapy, update the scheduled Follow-up questionnaire with a new date for their appointment.

Personal Treatment plans Questionnaires Test Results Interface Warnings

+ Add a new record → 1 - 2 / 2

	QuestionnaireType	Entry date	Summary
	Dabigatran Follow Up	22/05/2019	Overdue
	Dabigatran Initiation	20/12/2018	Complete: CrCl: 600 mL/min (cre: 75 µmol/L, Wt: 65 kg) - Dose: 110 mg twice daily

Print any letters / faxes / e-mails as required from the Letters tab.

Dabigatran Contacts Letters Drugs Events Procedures Reviews Reminders G

You may be unable to create some letters and messages until the next appointment has been created

- Select a Direct Print (Local printer) - -Select a custom message to send-

→ 1 - 1 / 1

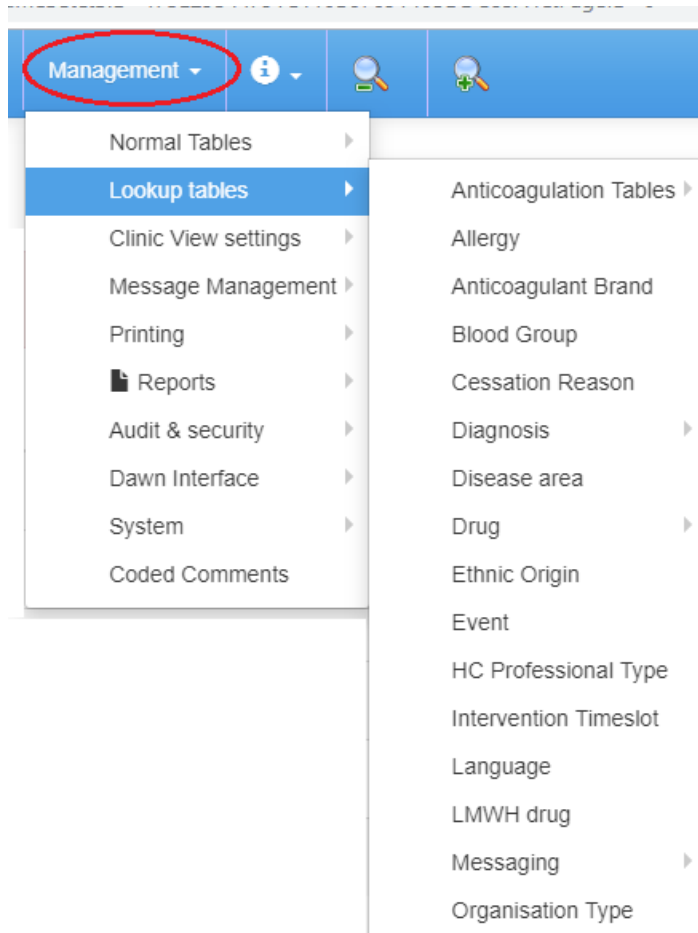
	Description	Created
	Dabigatran DNA for Follow up	23/05/2019 16:06

If a patient persistently fails to attend or have their blood tested you may wish to contact their GP or even discharge them from your monitoring service. You may wish to stop the treatment

plan and mark the patient as 'Inactive' on the Personal tab.

## 22.6 Settings for Direct Oral Anticoagulants

Your System Manager can access settings for the non-VKA agents in the System menu > Lookup tables.



**The settings here are critical to how your DAWN AC system operates and any changes / deletions / additions are likely to affect the anticoagulant dosing of past, present or future patients. ALL changes to settings should be tested thoroughly on a test database before applying changes in your production database. ALL outputs (like letters / e-mails) from the DAWN AC system should be checked carefully for completeness and accuracy by a suitably qualified healthcare professional before the patient is instructed.**

For a new oral anticoagulant, 4S DAWN Clinical Software will supply settings for Anticoagulant, Regime, Non VKA Dose and Questionnaire Settings. It is unlikely that you will need to modify these settings but please contact the support team (support@4s-DAWN.com) with any questions or issues.

From time to time, you may need to review or consider updates to the following tables for a particular anticoagulant -



- Therapeutic Indications section 15.1 if the agent may be used in a new condition
- Qualifying Risk Factors section 15.2 if new risk factors emerge or age limits change
- Interacting Drugs section 15.3 if new information emerges on concomitant drugs affecting the chosen anticoagulant
- Specific Risks section 15.4 if new conditions are found to affect the therapy
- Regime and Non VKA Dose section 15.5 to set a completely new dosage and dose settings
- General Lookup Category Settings section 15.6 to adjust the dropdown menus for CHADS or HASBLED scores



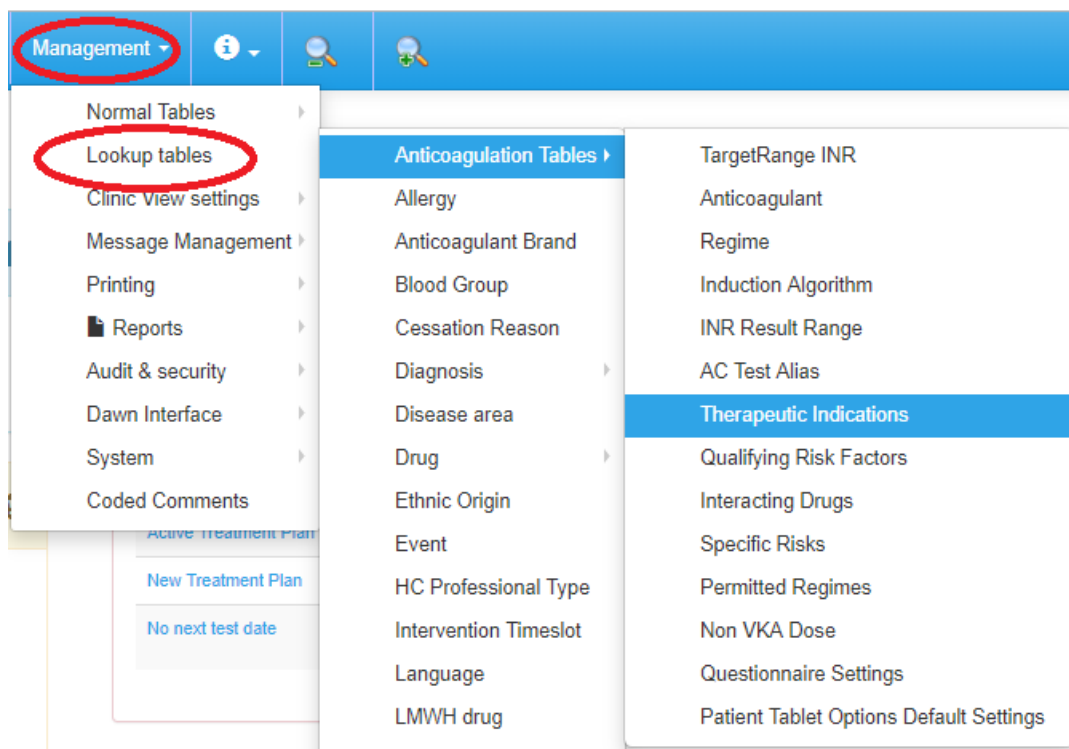
**It is very strongly recommended that you do not make Therapeutic Indication & Regime changes before confirming them with the support team at 4S.**

For help and advice on editing any settings in your DAWN AC system, please contact support@4s-DAWN.com.

### 22.6.1 Therapeutic indications

Please Note: The appropriate anticoagulant, diagnosis and regime need to be added to the DAWN system (if they are not already there) before proceeding to the step below.

The primary diagnosis for your patient has to be set as a valid qualifying diagnosis or 'therapeutic indication' for the particular anticoagulant. For example, the settings for Dabigatran may be as shown:



Therapeutic Indications ✕		
Anticoagulant	Diagnosis	Default Regime
Dabigatran ▼ ➡	RecDVT - RECURRENT DVT ▼ ➡	Dabigatran 150 mg twice daily ▼ ➡
Dabigatran ▼ ➡	AFNV - ATRIAL FIBRILLATION NON VALVULAR ▼ ➡	Dabigatran 150 mg twice daily ▼ ➡
Dabigatran ▼ ➡	ORTHO_KNEE - TOTAL KNEE REPLACEMENT SURGERY ▼ ➡	Dabigatran 220mg once daily ▼ ➡
Dabigatran ▼ ➡	ORTHO_HIP - TOTAL HIP REPLACEMENT SURGERY ▼ ➡	Dabigatran 220mg once daily ▼ ➡
Dabigatran ▼ ➡	DVT - UNPROVEN ▼ ➡	Dabigatran 150 mg twice daily ▼ ➡

Add to these settings as required as new medical evidence emerges so that an anticoagulant is known to be approved for use with a particular primary diagnosis.

**NB** - deleting entries on this table may result in multiple patients not getting a dose or next appointment.

(back to Settings for New Oral Anticoagulants page)

### 22.6.2 Qualifying Risk Factors for non-VKA

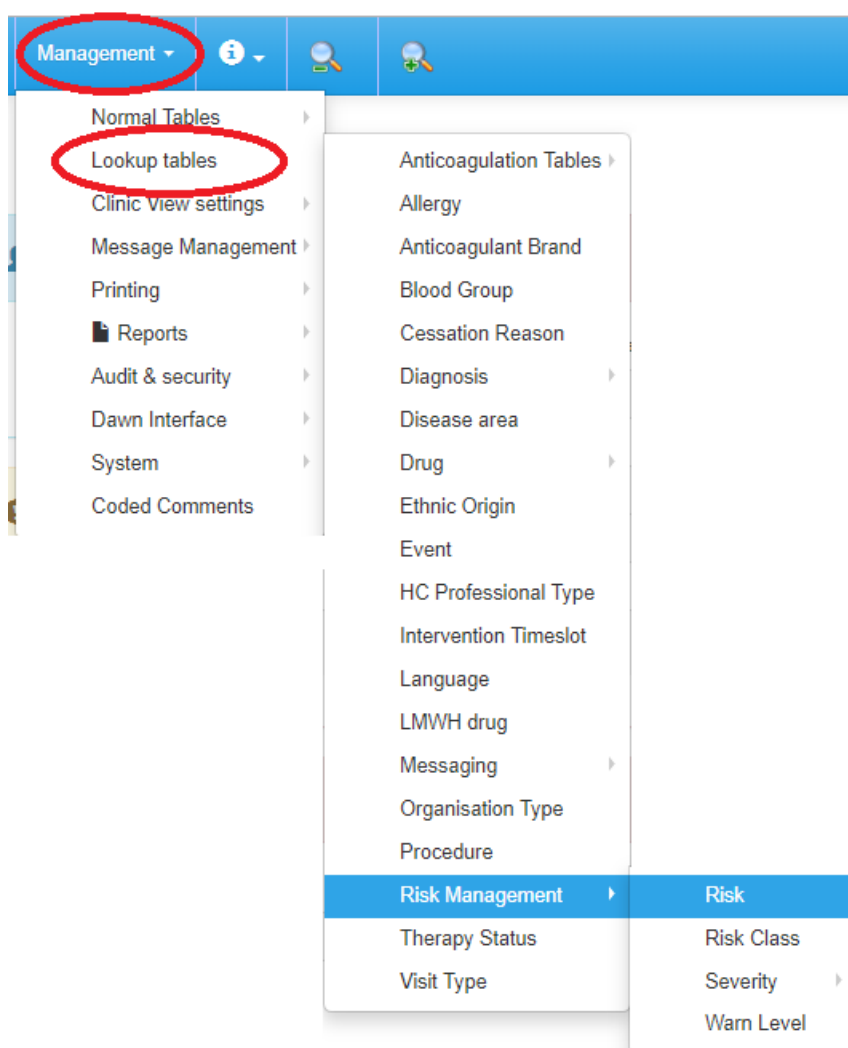
For some anticoagulants, it may be important to note which reason(s) or thrombotic risks have caused the patient to be prescribed this anticoagulant.

If no Qualifying Risk Factors are added, no opportunity to record these risk factors will be provided on an Initiation Questionnaire.

For example, for Dabigatran in AF patients the following risk factors may contribute to the decision to prescribe Dabigatran:

Qualifying Risk Factors ✕	
Therapeutic Indication	Risk
Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Aged >= 65 with diabetes mellitus, coronary artery disease or hype
Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Aged 75 or over
Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Left ventricular ejection fraction < 40%
Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Previous Stroke, transient ischaemic attack or systemic embolism
Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Symptomatic heart failure >= NYHA Class 2

The entries on this table link a Therapeutic indication and a Risk and you should ensure that the Risk chosen is marked In Use.



**NB** - deletion of an entry for Qualifying Risk Factors may cause loss of information in any patient questionnaire not completed or unlocked for editing.

(back to Settings for New Oral Anticoagulants page)

### 22.6.3 Interacting drugs for non-VKA

It is possible to link an anticoagulant with a drug which has one of the following interactions if prescribed concomitantly:

- Contraindication
- Haemorrhagic Risk
- Thromboembolic Risk

These settings have a notes field and the notes plus appropriate warnings will display on appropriate patient questionnaires and may prevent activation of a treatment plan. See examples for contraindicated drugs and interacting drugs.

Interacting Drugs ✕	
Anticoagulant	Dabigatran ▼
Drug	ASPIRIN ▼
Interaction	Haemorrhagic risk ▼
Clinical Advice	Close clinical surveillance (looking for signs of bleeding or anaemia)



**NB - addition / editing / deletion of entries on this table may cause checks on important drug interactions to be missed.**

**NB** - deletion of an entry for Interacting Drugs may cause loss of information in any patient questionnaire not completed or unlocked for editing.

(back to Settings for New Oral Anticoagulants page)

(Technical note - the table name for Interacting drugs is AnticoagulantInteractionDrug)

#### 22.6.4 Specific Risks for non-VKA

Haemorrhagic risks, thromboembolic risks and contraindicated conditions may be stored in this table for use in patient questionnaires.

These settings populate the questionnaire screens for haemorrhagic risks and other contraindications.


Specific Risks ✕	
Anticoagulant	Dabigatran ▼
Risk	Organic lesion at risk of bleeding ▼
Risk Type	Contraindication ▼
Clinical Advice	Contraindicated

**NB** - deletion of an entry for Specific Risks may cause loss of information in any patient questionnaire not completed or unlocked for editing.

(back to Settings for New Oral Anticoagulants page)

(Technical note - the table name for Specific Risks is AnticoagulantRisk.)

## 22.6.5 Regime and Non VKA Dose



 **It is very strongly recommended that you do not make Therapeutic Indication & Regime changes before confirming them with the support team at 4S.**

Regime settings are required for each non-VKA dose to be used in DAWN AC. Each dosage needs to exist as a 'Regime', a 'non-VKA Dose' and as a 'Permitted Regime'.

If a new dosage or dosage frequency is approved you may add this to each of the 3 following tables as appropriate so that the settings are available in a DAWN AC patient record.

See Dabigatran examples below:

### Regime

Regime ✕			
Description	Dabigatran 110 mg Twice Daily		
Code Name	DAB110TD		
Anticoagulant	Dabigatran		
Brand	(None selected)		
Status	Active		
Record Dose As 	Daily Average	Dose Units 	Mg
Split Tablet Into	Half a tablet		
Tablet Strength 1	<input type="text"/>	(None selected)	



The settings are similar to VKA doses in this table except that no Instructions are required.

**NB** - deletion of an entry for Regime may result in multiple patients not getting a dose or next appointment.

### Non VKA Dose

The settings for non-VKA regimes link to a numeric Total Daily Dose which is stored in this table for reference. Elements of the settings for a chosen regime are compared between the regime chosen in a treatment plan and in the Questionnaires and this is the basis of some of the validation checks on each patient.

Non VKA Dose ✕

Regime	Dose	Dose Units	Frequency	Total Daily Dose
 Dabigatran 110 mg Twice Daily ▾	110	mg	Twice Daily	220
 Dabigatran 150 mg Once Daily ▾	150	mg	Once Daily	150

Each regime for which a dose check is required needs to have a setting in this table. If an

Initiation Questionnaire requires this dose check, it will not be possible to activate a treatment plan for the new dosage without a setting in this table.



**The settings here are critical to how your DAWN AC system operates and any changes / deletions / additions are likely to affect the anticoagulant dosing of past, present or future patients. ALL changes to settings should be tested thoroughly on a test database before applying changes in your production database.**

### Permitted Regimes

Other validation checks are made on first activation of a treatment plan and on saving an Initiation Questionnaire on the settings stating which regimes (*ie* dose of Dabigatran for example) are appropriate for which primary diagnosis (or therapeutic indication). Additional regimes can be added to this table as appropriate.

Permitted Regimes ✕				
	Therapeutic Indication	Regime	Clinical Advice	Order
	Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Dabigatran 150 mg twice d	Normal dose	10
	Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Dabigatran 110 mg Twice D	Patients aged 80 or ove	20
	Dabigatran - AFNV - ATRIAL FIBRILLATION NON VALVULAR	Dabigatran 220mg once da		100

The 'Clinical Advice' is displayed on the Initiation Questionnaire screen as below and the Order number is relevant for display on the questionnaire screen. eg

Valid dosing regimes for this indication are:

Dosing regime	Advice
Dabigatran 150 mg twice daily	Normal dose
Dabigatran 110 mg Twice Daily	Patients aged 80 or over, or at risk of bleeding
Dabigatran 220mg once daily	

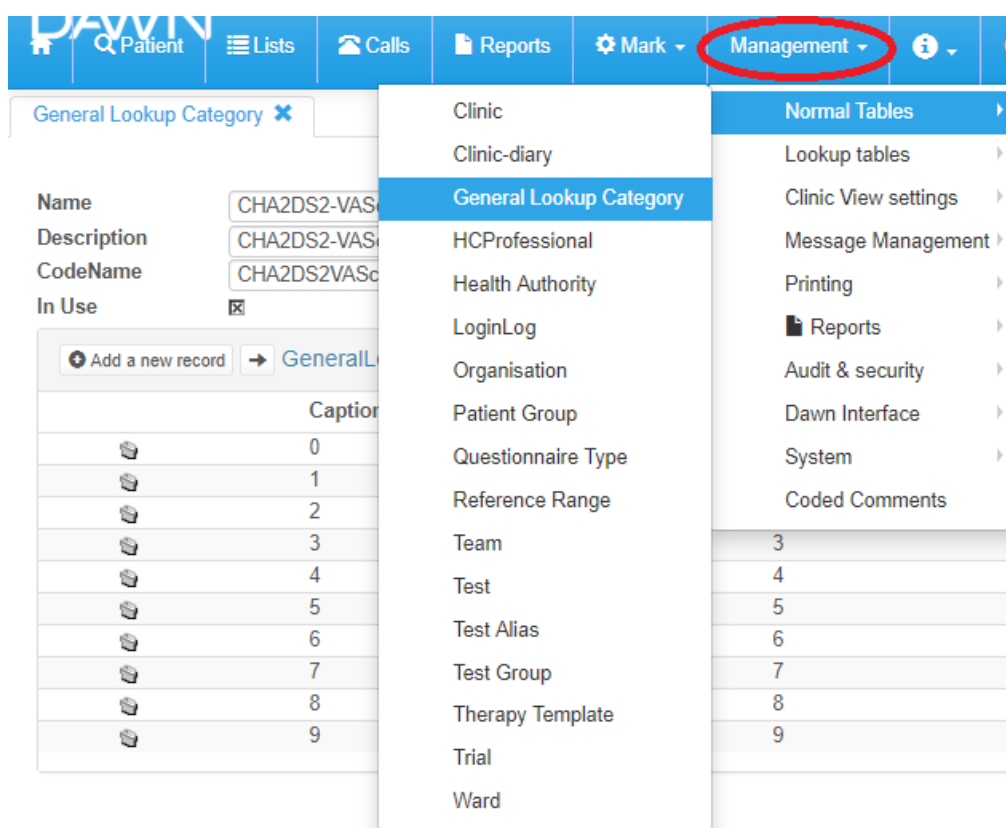
**NB** - deletion of an entry for Permitted Regimes may result in multiple patients not getting a dose or next appointment.

(back to 'Settings for New Oral Anticoagulants' page)

(Technical note - the table name for Permitted Regimes is AnticoagulantIndicationRegime.)

## 22.6.6 General Lookup Category settings for non-VKA

The general lookup category settings are used in some questionnaires. Options available for answering questions on the questionnaire may be edited / added to or deleted from this table.



**NB** - renaming or deletion of an entry for General Lookup or General Lookup Category may cause loss of information in any patient questionnaire not completed or unlocked for editing.

(back to Settings for New Oral Anticoagulants page)

## 23 Variance Growth Rate (VGR)

This chapter describes the Variance Growth Rate (VGR) functionality.

What is VGR

Enabling the VGR functionality

VGR in the Patient Screen

Use of VGR values in letters

VGR Settings

.

### 23.1 What is Variance Growth Rate (VGR)

#### Overview

It is known that Percentage Time in Therapeutic Range (%TIR) is not a very good indicator of the likelihood of a patient having a bleeding or thrombotic event. However, a new research study<sup>1</sup> has found that in certain circumstances the Percentage Time in Range can be used to indicate an increased risk of a thrombotic event and that in other circumstances a calculation of the variability of the patient INR (Variance Growth Rate or VGR) can indicate an increased risk of a bleeding event.

The study found that a calculation of Percentage Time in Range over a 6 month period can help in indicating increased risk of thrombotic events, with patients in the 'Below Average' range (<37% %TIR) having 3.3 times the risk of a thrombotic event compared with patients in the 'Above Average' range (>82% %TIR).

The same study also found that a calculation of the variability of the patient INR over 3 months (VGR) can indicate a 3.3 times increase in the risk of any event (thrombotic and bleeding) for patients in the most unstable group (VGR > 0.67) compared with those in the most stable group (VGR < 0.10).

Functionality to calculate and display two 'traffic light' indicators for 6 Month %Time In Range and 3 Month VGR along with a cross-check Maximum Difference in INR value is therefore available on the main Patient Details screen from version 7.9.33 of DAWN AC.

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1. Ibrahim S, Jespersen J, Poller L, on behalf of The European Action on Anticoagulation. The clinical evaluation of International Normalized Ratio variability and control in conventional oral anticoagulant administration by use of the variance growth rate. *J Thromb Haemost* 2013; 11: 1540-6

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#### VGR Field Calculations and Display



### VGR Setup Screen

A new VGR Setup screen has been created. Ranges of TIR% and VGR values are defined on the VGR Setup screen and associated with different descriptions and colours depending on the risk of an event for a patient with a calculated value in that range. By default three ranges are defined for each indicator, with red indicating higher risk values, amber average risk values and green the lowest risk category. The VGR Setup screen is described in more detail in a later section of this chapter.

### Patient Details Screen Changes

Three new display only fields have been added to the Patient Details screen. These fields are:

- 6 month Percentage Time in Range (label TIR%)
- 3 Month VGR (label VGR)
- Maximum Difference (label Max Diff)

Each of the TIR% and VGR fields display a coloured box and a description. The Max Diff field displays a number.

### Calculation Details

The TIR% and VGR values are calculated for a patient as described below when a new INR is recorded or deleted (only manually entered history records can be deleted) for the patient.

The VGR figures are only calculated and displayed for patients where the current Treatment Plan is Active (status is Active or ActiveAdmitted) and the current regime is a Vitamin K anticoagulant.

The calculated values are compared with the ranges defined on the VGR Setup screen and the appropriate colour and description for each of the calculated values is then displayed on the Patient Details screen. The actual calculated values and number of INRs used in each calculation can be seen by hovering over each of the coloured boxes.

### 6 Month Percentage Time In Range

The TIR% field calculation is the number of days that the patient's INR was within the target range for the patient as a percentage of the total number of days in the period for the last six months. The value is calculated to 1 decimal place.

The TIR% calculation is only carried out where the patient has at least the number of non-zero INRs recorded in the 6 month period specified on the VGR setup screen. This number defaults to 2.

### VGR

The VGR field calculation is based on the INRs recorded for the patient in the three months back from the last recorded INR. It is calculated using the formula known as the Fihn Variance Growth Rate (Method A). The calculation reflects the degree to which a patient's INR deviates from his or her target INR over a period. Using this formula a patient is considered most stable (and therefore at lowest risk of an event) when their INRs stay close to the target INR.

The formula used to calculate the VGR is:

$$\sigma^2 = \frac{1}{n} \sum_{i=1}^n \frac{(\text{INR}_i - \text{target}_i)^2}{\tau_i}$$

$n$  – the number of non-zero INRs for the patient which fall within the 3 month period from the last recorded INR.  $\text{target}$  – the middle of the latest patient target range i.e. 2.5 for range of 2.0 – 3.0.

$\tau$  - the time in weeks between the current INR measurement and the previous INR measurement as a decimal. Zero INRs are ignored in the calculation.



HINT

**NOTE:** The target range used in the calculation is the latest target range recorded for the patient if they have more than one target range recorded for the three month period. The value is calculated to 2 decimal places.

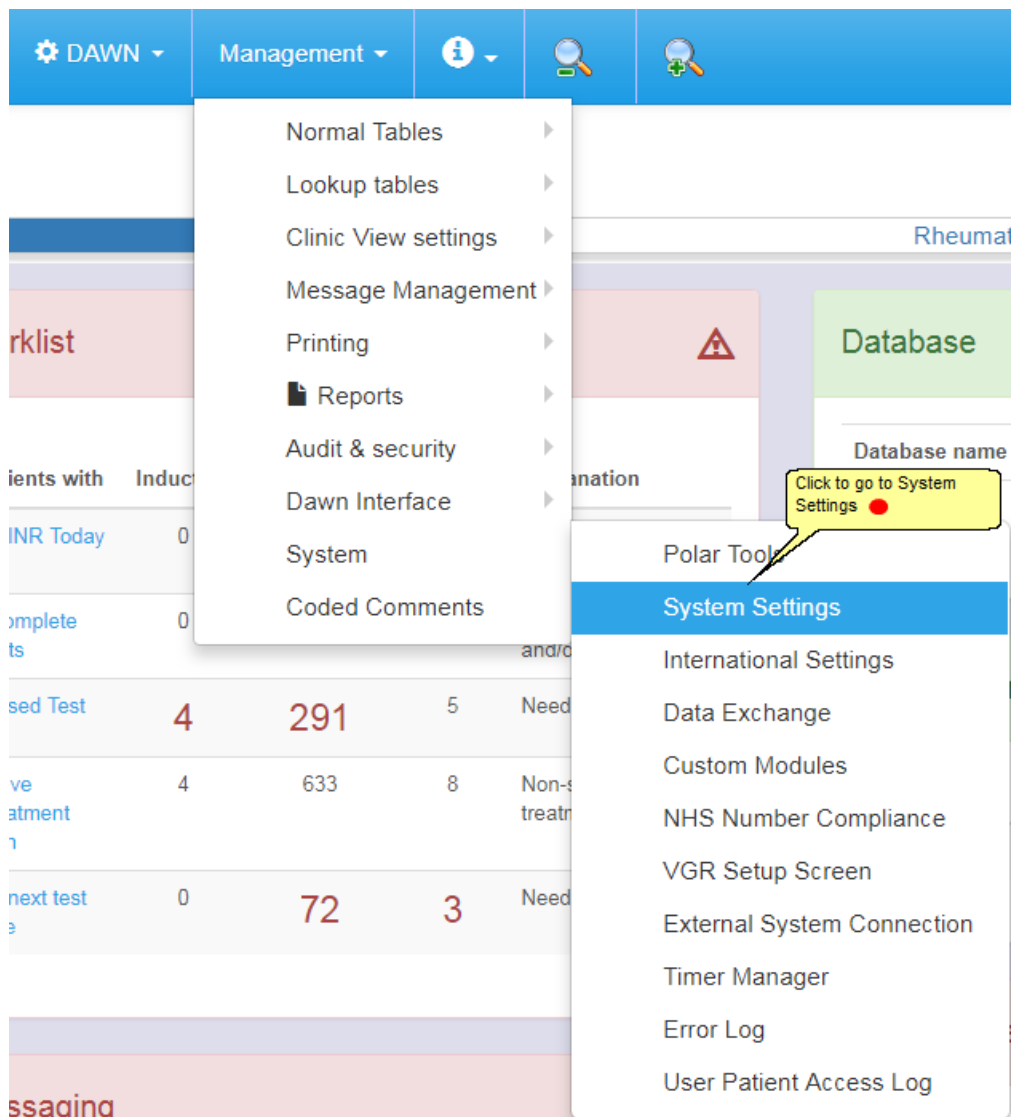
The VGR calculation is only carried out where the patient has at least the number of non-zero INRs recorded in the 3 month period specified on the VGR setup screen. This number defaults to 2 and must be at least 2.

### Maximum Difference

The Max Diff field shows the difference between the maximum and minimum INRs recorded for the patient in the same three month period as used to calculate the VGR.

## 23.2 Enabling VGR Functionality

By default the VGR functionality is disabled when version 7.9.33 or later of DAWN AC is installed. This means that by default the VGR fields will not be visible on the Patient Details screen and the values will not be calculated and stored in the database.



### 23.2.1 Enable VGR Functionality

Enter 'VGR' in the Search For: Name field at the top of the screen and click the Search button.

System Settings ✕

**Search** 🔍

Sorting: By Type/Name

Search for: Name  Value

**Customizations**

Name	Value	Description
VGR_DisplayVGR	<input type="text" value="1"/>	Must the VGR be displayed in the TreatmentPlan / Patient-forms

Change the number in the Value field for the VGR\_DisplayVGR system setting record to 1 to enable the VGR functionality or to 0 to disable the functionality.

Click the Save button to save the change.

This system setting controls both display of the VGR indicator fields on the Patient Details screen and whether or not the values are calculated and stored in the database. It should therefore be noted that turning the VGR functionality off for a period and then re-enabling it will create a gap in the history of the VGR values calculated and stored in the database.

It is possible to use the current TIR% and VGR range descriptions which apply for a patient in message templates so that, for example, a letter to a GP could include the text to say that a patient has an 'Above Average' Percentage Time in Range and an 'Average' VGR.

Please contact 4S DAWN Clinical Software at support@4s-dawn.com if you require letters which include this information.

### 23.3 VGR in the Patient Screen

When the VGR functionality has been enabled and where the patient has an active Vitamin K anticoagulant regime, the VGR 'traffic light' indicators and Max Diff field are displayed at the top left of the Patient Details screen as shown below.

DAWN®

Home Patient Lists Calls Reports DAWN Management

Patient x

ADAMS, Julie - Female - 01/08/2007 012 345 6789 - 39 MAES YR & HAF, LEEDS & District - 21 ST

TIR% Above Average VGR Above Average Max Diff 1.7

Dosing Contacts Let

**PAEDIATRIC PATIENT**

Risk Class

Pref. Clinic Dalton Square Surgery GP (S)

Phone 01539563091 & 115 - home

Age: 11

Variance Growth Rate based on results of 3 months:  
Value: 0.14  
No. of INRs: 5  
NOTE: Do not depend on the VGR or TIR calculations alone to make any clinical decisions.

Diagnosis AF & CARDIOVERSION ...

Target Range 2.0 - 3.0

Start Date 26/08/2006 - Indefinite

Anticoagulant Warfarin 2 & 1mg Tablets With Halves Daily

Treatment Plan < 1 > of 1 active View

Risks current or recent gastrointestinal ulceration

Warfarin		Sun	Mo
2mg		1	
1mg		1/2	
Lovenox		Sun	Mo
08:00	30Mg		
20:00	30Mg		

Dose 2.43 d ✓ No dose change

Accept dose New INR/Dos

Graph History Perso

Add history data

Date	INR	Dose
------	-----	------

The VGR values are calculated each time a new INR is accepted and are stored in the database against the Treatment Plan and each Treatment record so that a history of values

over time will build up for a patient if the functionality is enabled.



HINT

Note though, that when historical records are added or deleted the VGR figures on subsequent Treatment records will **not** be recalculated.

Where no value can be calculated for a patient because there are not enough INRs recorded for them in the period, then instead of a coloured box the text 'Not Calculated' in grey will be displayed.



WARNING

Do not use the Percentage Time in Range and VGR figures in isolation to make any clinical decisions.

Ensure that you have a procedure to handle below average %TIR and VGR scores.

## 23.4 Use of VGR in Letters

It is possible to use the current TIR% and VGR range descriptions which apply for a patient in message templates so that, for example, a letter to a GP could include the text to say that a patient has an 'Above Average' Percentage Time in Range and an 'Average' VGR.

Please contact 4S DAWN Clinical Software at [support@4s-dawn.com](mailto:support@4s-dawn.com) if you require letters which include this information.

## 23.5 VGR Settings

The VGR Setup screen is available on the System sub-menu of the Management menu on the System Menu.



HINT

Changes to the values on this screen can only be made by 4S Information Systems staff who will enter a password in the field at the top of the screen to enable data changes to be saved. Users may use this screen to view the settings.

This screen is used to define the ranges of VGR and %TIR values and the descriptions and colours associated with each range. Between 2 and 5 ranges can be defined for each indicator.

It is also used to define the minimum number of INRs which need to be recorded for a patient in the relevant period before the VGR and the %TIR can be calculated.

DAWN

[Patient](#) [Lists](#) [Calls](#) [Reports](#) [DAWN](#) [Management](#) [Help](#)

Patient

VGR Setup Screen

Enter the password to enable changes to be saved

Password

.....

Confirm Password

3 Month VGR Ranges

Caption	Colour	Min Value
Above Average	#66B050	0.1
Average	#FFC000	0.
Below Average	#FF0000	0.

6 Month %TIR Ranges

Caption	Colour	Min Value
Below Average	#FF0000	0.1
Average	#FFC000	53
Above Average	#66B050	73

Minimum Number of INRs in 3 Month Period to Calculate VGR (min 2):

2

Minimum Number of INRs in 6 Month Period to Calculate 6 Month %TIR:

2

## 24 System Settings



**Editing System Settings incorrectly could cause the system to stop working in a safe manner. Please consult 4S before making any changes to these settings**

Login System Settings

Password System Settings

Clinic / Diary System Settings

Patient Record System Settings

Treatment Plan Record System Settings

AC System Settings

Other System Settings

### 24.1 Login System Settings

Description	System Setting Name	Value	Standard Setting
Should the system perform logging on Concurrent User Mutex creation/deletion?	ConcurrentUsers_Enable Logging	0 = No 1 = Yes	0
By default, DAWN logs you out if you close your DAWN browser window. In some cases, this action can misfire and log you out unintentionally.	DisableLogoutOnWindowClose	1 = Disable this functionality 0 = Enable this functionality	0
The max number of logon attempts before the user gets the 'Logon Denied' screen. This does not affect the max number of wrong logons for the user.	Session_MaxLogonAttempts		25
Does the logon-procedure support automatic logon of users using their network-name	SupportActiveDirectory	0 = No 1 = Yes	0
The default domain for the network, used for the automatic identification of users	DefaultNetworkDomain		
The number of minutes a session lasts while the user is idle. Idle time is the time between pressing Save, or an action button or moving between screens	Session_TimeOutMinutes	Enter a number like 10 (indicating 10minutes). Entering zero will not disable the setting. Zero indicates 0 minutes and will log	20

		you out almost immediately.	
Must the system log the reads of records.	System_LogReads	0 = No 1 = Yes	1



## 24.2 Password System Settings

Description	System Setting Name	Value	Standard Setting
Minimum number of alfa characters in a password	PasswordComplexityCharCountAlfa		3
Minimum number of numeric characters in a password	PasswordComplexityCharCountNumeric		1
Minimum number of special characters in a password	PasswordComplexityCharCountSpecial		1
Minimum length of new passwords	PasswordComplexityMinPasswordLength		6
The maximum lifetime of a password in days	PasswordExpirationDays	Enter a value of 0 for unlimited Or Enter a number like 61 (indicating 61 days)	61
The from-address for new password emails	NewPasswordEmailFromAddress		admin@4s-dawn.com
The header (subject) for new password emails. Can contain [User Name] and [Password] codes	NewPasswordEmailHeader		Your password for the Dawn AC version 7 application
The template for new password emails. Can contain [User Name] and [Password] codes	NewPasswordEmailTemplate		We have created a password for you. Your account info is: UserName: [UserName] Password: [Password]
Must the system give the user detailed information in case of a login failure?	DisplayLoginFailureDetails	0 = No 1 = Yes	1

## 24.3 Clinic / Diary System Settings

Description	System Setting Name	Value	Standard Setting
Must the organisation be included in the Identifier of the Clinic	Clinic_ShowOrganisationIdentifier	0 = No 1 = Yes	1
The overdue-colour #1 for colour-coding diary-days.	ClinicDiary_OverDueColor_1	Use a HTML colour-code like '#FF8080'	#FFD0D0
The overdue-colour #2 for colour-coding diary-days.	ClinicDiary_OverDueColor_2	Use a HTML colour-code like '#FF8080'	#FFB0B0
The overdue-colour #3 for colour-coding diary-days.	ClinicDiary_OverDueColor_3	Use a HTML colour-code like '#FF8080'	#FF9090
The overdue-percentage #1 for colour-coding diary-days.	ClinicDiary_OverDuePercentage_1	Enter a number like 20 (indicating 20%) or Leave empty for not-set	20
The overdue-percentage #2 for colour-coding diary-days.	ClinicDiary_OverDuePercentage_2	Enter a number like 40 (indicating 40%) or Leave empty for not-set	40
The overdue-percentage #3 for colour-coding diary-days.	ClinicDiary_OverDuePercentage_3	Enter a number like 60 (indicating 60%) or Leave empty for not-set	60
The number of weeks the diary is automatically created ahead	Diary_AutoCreateWeeksAhead		14
The date the diary was automatically maintained the for the last time	Diary_AutoMaintenance_LastDate	System auto updates (YYYYMMDD)	
The number of weeks of the diary that are kept in history.	Diary_WeeksToKeepInHistory	Enter a number like 1 (indicating 1 week) Or Set to -1 to disable automatic deletion	1
At what time should the Diary Extension timer start.	DiaryExtensionStartTime	Format: an integer indicating the hours in 24 hour format: eg 3 = 3am. 20 = 8pm. Maximum value is 21, to allow 3 hours of processing time for the task to complete	0

## 24.4 Patient Record System Settings

Description	System Setting Name	Value	Standard Setting
The initial field the cursor is put in when searching for a patient	Patient_DefaultSearchField	Use one of: LastName FirstName DateOfBirth UnitNo NationalNo	LastName
Caption for Miscellaneous field on the Personal Tab, Contact Info tab, within the Additional section.	PatientMisc1_FieldCaption	Leave blank to hide field	Misc
Caption for the National No field in table Patient	PatientNationalNo_FieldCaption		UK = NHS No  USA = Blank (so National No is used)
Caption for the Postcode field in table Patient	PatientPostCode_FieldCaption		UK = Post Code  USA = Zip
Caption for the Town field in table Patient	PatientTown_FieldCaption		UK = Town  USA = City
Caption for the Unit No field in table Patient	PatientUnitNo_FieldCaption		UK = Unit No  USA = MRN
Caption for the County field in table Patient	PatientCounty_FieldCaption		UK = County  USA = State
Value at which the patient age is displayed in red	PatientRiskAge		65

Mandatory patient identifier	PatientUnitOrNationalNumber	1 = Unit No 0 = National No	1
Default Risk Class for new patients, based on the Risk Level-value in table Risk Class.	Patient_DefaultRiskClassLevel	Leave empty for not-set	100
Should a quick note be added when the GP or Consultant is automatically updated?	Patient_InsertGPAndConsultantQuickNote	0 = No 1 = Yes	1
Should the patient's gender be displayed in the caption of the Patient details window	PatientForm_Caption_Display Gender	0 = No 1 = Yes	1
The user defined field to display in the caption of the Patient details window.	PatientForm_Caption_Field	Use one of: AddressLine2 Laboratory GP Consultant	AddressLine2
Should a quick note be added when the GP or Consultant is automatically updated?	Patient_InsertGPAndConsultantQuickNote	0 = No 1 = Yes	1

## 24.5 Treatment Plan System Settings

Description	System Setting Name	Value	Standard Setting
Default status for a New Treatment Plan, added with the New Patient Wizard	PatientWizard_DefaultACTreatmentPlanStatus	Use one of: Active Admitted ActiveAdmitted New	Active
Default Messaging Method for a new patient in the New Patient Wizard	PatientWizard_DefaultMessagingMethod	Use one of: Email Fax Mail Phone/ Email Phone/Fax Phone/Mail	Mail
Cessation Reason to use when automatically stopping a treatment if a patient is marked as deceased	TreatmentPlan_DeceasedCessationReason		
Maximum number of months in the past allowed for the start date of a long-term treatment plan before a warning is displayed	TreatmentPlan_LongTerm_MaxStartMonthsInPast		12
Maximum number of days in the past allowed for the start date of a short-term treatment plan before a warning is displayed	TreatmentPlan_ShortTerm_MaxStartDaysInPast		21
How many days in the future can the Treatment Plan start date be set before displaying a warning message	TreatmentPlanStartDaysInFuture		0
Caption for the Consultant field in table Treatment Plan	TreatmentPlanConsultantID_FieldCaption		
Caption for the Referring GP field in table Treatment Plan	TreatmentPlanReferringGpID_FieldCaption		
List of coded options for the Transport Needs dropdown in the Treatment Plan	TreatmentPlan_TransportNeedsOptions	Value; Caption [New Line] Value; Caption [New Line] etc	1; Transport 2; Home
The number of weeks a Treatment-plan is marked as 'New'	NewPatientWeekCount		8

## 24.6 AC System Settings

Description	System Setting Name	Value	Standard Setting
Does the system allow INR-dates in the future	Treatment_AllowFutureINRdate	1 = Allow 0 = Don't allow	1
Must the treatment be automatically authorised once the dose is accepted	Treatment_AutoAuthorise	1 = Auto 0 = Manual	1
Must the treatment be automatically scheduled.	Treatment_AutoScheduleAtCreation	0 = No 1 = Yes	1
Use colour coding of buttons to indicate warnings?	Treatment_ColourCodeButtons	0 = No 1 = Yes	1
The max days the day-interval may change before a warning is sent	Treatment_DayIntervalChangeWarningThreshold	Enter a number like 7 (indicating 7 days)	7
Does the Auto-Schedule-feature allow non-preferred times when rescheduling DNA's.	Treatment_DNAreschedule_AllowNonPreferredTime	0 = No 1 = Yes	1
The max percentage (as a whole number) the dose may change before a warning is sent	Treatment_DoseChangeWarningThreshold	Enter a number like 25 (indicating 25%)	30
Threshold for High-INR messages	Treatment_HighINRmessageThreshold	Like 6.5	6
The minimum percentage for Time In Range. If the Time In Range is lower, a warning is given	MinTimeInRangeWarningPercentage	Enter a number like 40 (indicating 40%)	40
Maximum amount the INR may differ from the target before a warning is raised.	Treatment_INRawayFromTargetWarningThreshold	A value of zero (0) suppresses this check.	2.5
Absolute amount the INR may change before a warning is sent	Treatment_INRchangeWarningThreshold	Use decimal point, like: 1.5	1.5
Threshold for Low-INR messages	Treatment_LowINRmessageThreshold	Like 1.0	1.5
Maximum days in the past that is allowed for the INR date when registering the INR	Treatment_MaxINRdateInPast		14
Maximum days number of records shown in the treatments list	Treatment_MaxRecordsInTreatmentsList		20
Maximum days Miss Or Boost-days,	Treatment_MissOrBoostWarningDay		5

before a warning is sent	Treshold		
Maximum days Miss Or Boost Boost-percentage, related to the base-dose	Treatment_MissOrBoostWarningPercentageTreshold	For example 100 for max 100% boost. Enter as a whole number (like 75)	100
Maximum days Miss Or Boost Boost-tablets, before a warning is sent	Treatment_MissOrBoostWarningTabletsTreshold	For example 2	3
Percentage dose change that triggers an automatic switch to manual/bridging dosing	Treatment_SwitchToManualDosing_Treshold	If no value entered, this will default to 25.	0
Should a treatment note be added on automatic switch to manual/bridging dosing?	Treatment_SwitchToManualDosing_TreatmentNote	0 = No 1 = Yes	1
Should the Total Mg line of a dosing instruction always be displayed in decimals regardless of whether the tablet lines are shown in fractions.	AC_DisplayDosingInstructions_ShowTotalMgInDecimals	0 = No 1 = Yes	0
Must the AC dosing-instructions be displayed using fractions or decimals.	AC_DisplayDosingInstructionsInDecimals	0 = Fractions 1 = Decimals	0
Must the AC dosing-instructions be displayed in text-style instead of HTML-formatted style	AC_DisplayTextStyleDosingInstructions	1 = Text-style 0 = HTML-formatted style	0
How long is the measurement of the patient's weight valid for prescribing weight-based LMWH-drugs	AC_LMWH_PatientWeightMeasurementExpiryIntervalDays	Enter a number like 14 (indicating 14 days)	14
Must the bookprinter's next label position be shown in the Patient's Letters-tab	AC_ShowBookPrinterNextLabelPosition	0 = Hide 1 = Show	0
Should the DNA count be shown in the treatment history?	AC_ShowInHistory_DNACount	0 = No 1 = Yes	1
Should the full dosing instruction be shown in the treatment history?	AC_ShowInHistory_DosingInstructions	0 = No 1 = Yes	1
Should the time in range be shown in the treatment history	AC_ShowInHistory_TimeInRange	0 = No 1 = Yes	1

Must the total-dose line be shown in the instructions	AC_ShowInstructionTotalDoseLine	0 = No 1 = Yes This value can be overruled per regime	1
Is DNA-Bulk Reschedule allowed on treatments with the INRdate on today?	AllowDNAbulkRescheduleOnINRday	0 = No 1 = Yes	0
Allow adding dose INR history for the current treatment plan.	AllowMultipleINRsPerDay	1 = Allow 0 = Disable	0
Allow dosing without an INR	AllowZeroINR	0 = No 1 = Yes	0
If dosing without an INR, the dose will revert to the previous dose if the setting is 1, otherwise the dose will be set to 0.	AllowZeroINR_RevertToPreviousDose	1 = Revert to previous dose 0 = Dose set to 0	0
Does the system allow dosing week patterns to be customized	Dosing_EnableCustomizedWeekPatterns	0 = No 1 = Yes	1
The number of days the treatment plan must be 'running' before the maintenance Auto Calc can be done	DosingEngine_DaysToAutoCalc		7
The max INR-discrepancy from the INR-limits that is allowed without a dose-change.	DosingEngine_INRsafeZoneMargin	Use values from 0 to 0.8.	0.8
The max dose difference permitted between any 2 days in the same dosing instruction before DAWN assumes it is a bridging or loading dose	DosingInstruction_MaxDiffBetweenDays	0 = Any amount permitted (disable check) 1 = Smallest whole tablet 2 = Smallest part tablet (e.g. half a tablet)	1
The first day of the week	FirstDayOfWeek	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	1
The number of INRs in a row that must be falling or rising before a	INRRisingOrFallingRecordCount		3



warning is issued			
The number of days to evaluate for the Time-in-range calculations	PercentageInRangeDayCount		365
Use Manual/Bridging and Induction INRs along with Maintenance INRs in the Time in Range calculation	TimeInRange_UseBridgingInCalculation	0 = No - Only use Maintenance 1 = Yes - Use Maintenance , Manual/ Bridging and Induction INRs	0
Default value for the Maximum Interval-field in new treatment plans	TreatmentPlan_MaxInterval_Default		42
Default value for the Maximum Percent Dose Change-field in new treatment plans	TreatmentPlan_MaxPercentDoseChange_Default		20
Default AC Therapy	TreatmentplanACTherapyDefault	1: Induction 2: Maintenance	2
Must the VGR be displayed in the Treatment Plan / Patient-forms	VGR_DisplayVGR	0 = No 1 = Yes	0
Indicates whether this installation includes an inbound INR interface	Interface_ActiveACInterface	0 = No 1 = Yes	
The default number of days to advance for Batch Rescheduling	BatchReschedule_DaysToAdvance		7
The max count of Non-Attendances	BatchReschedule_MaxDnaCount		3
The caption for the TelApp field 'SendDNAfollowUp'	TelApp_SendDNAfollowUp_Caption	An empty caption will make this field invisible	Send dosing instructions
The default value for the TelApp field 'SendDNAfollowUp'	TelApp_SendDNAfollowUp_DefaultValue		0
The caption for the TelApp field 'SendDosingInstructions'	TelApp_SendDosingInstructions_Caption	An empty caption will make this field invisible	Send dosing instructions
The default value for the TelApp field 'SendDosingInstructions'	TelApp_SendDosingInstructions_DefaultValue		0
The caption for the TelApp field 'SendReminders'	TelApp_SendReminders_Caption	An empty caption will make this field invisible	Send reminders
The default value for the TelApp	TelApp_SendReminders_DefaultValue		0

field 'SendReminders'			
The name of the Telephony application, for example CallAssure	TelApp_TelephonyApplicationName		Call Assure
Must INR prediction be switched on?	EnableINRprediction	1 = Prediction on 0 = Prediction off	0
The max number of treatment-history in MailMerges (including the current)	MailMerge_MaxTreatmentCount		6
The maximum number of Miss or Boost days	MaxMissOrBoostDays		9
Percentage dose change that triggers forcing the user to enter a review note before accepting the dose	Percentage_Dose_Change_Requiring Review		20
How many months' worth of INR results and doses should be included in the graphs (working back from today)?	AC_PatientGraph_MonthsToInclude		18

## 24.7 Other System Settings

Description	System Setting Name	Value	Standard Setting
Indicates whether this installation includes an inbound test results interface	Interface_ActiveResultsInterface	0 = No 1 = Yes	0
The initial language of this application	ApplicationLanguageID	0 = English	0
The prefix to use for code comments	CodedCommentPrefix		.
Custom actions to run in a timer, formatted as ModuleName.FunctionName(Context, OtherParameters) per line. These functions MUST handle the actual interval themselves and MUST return a non-empty string if work was done.	CustomTimerActions		NULL
The current versions of the database-structure	DatabaseVersion	This is automatically set to the version compatible with the version of DAWN	
Specifies the content for the covering email for messages sent as Email with PDF attachment. The template can be plain text or include html tags (so you can include images such as health centre logos). You can also use the following merge fields to personalise the message:  [RecipientType]        "patient" or "HC p [RecipientTitle]        The recipient's tit [RecipientFirstName] The recipient's fir [RecipientLastname] The recipient's la [EmailSubject]        The subject line c configured in the wider range of m	DawnMessages_EmailTemplate		"Please see attached PDF file"

from 04/12/2020" Only include HTML tags if your External System Connection is <b>not</b> configured to send emails in plain text format (otherwise the tags are rendered as part of the text, e.g, <b>IMPORTANT test result</b> instead of <b>IMPORTANT test result</b> .			
Last date the Maintenance task last ran	ErrorLog_AutoMaintenance_LastDate		20161229
At what time should the Error Log Maintenance start.	ErrorLog_AutoMaintenance_Time	Format: an integer indicating the hours in 24 hour format: eg 3 = 3am. 20 = 8pm. Maximum value is 23, to allow 1 hours of processing time for the task to complete	0
To set the units for Height	LocalSettings_HeightUnits	0: Metric (m) 1: Inches Format this string like: [0=m] [1=Inch]	[0=m][1=Inch]
Determines the default way to display/enter the height of patients	LocalSettings_PatientHeight	0: Metric (m) 1: Inches	0
Determines the default way to display/enter the weight of patients	LocalSettings_PatientWeight	0: Metric (kilo) 1: Pounds	0
To set the units for Height	LocalSettings_WeightUnits	0: Metric (kilo) 1: Pounds Format this string like: [0=kg] [1=lbs]	[0=kg][1=lbs]
The default from-address for emails that	Message_DefaultEmailFrom		noreply@medi

are sent by the system	Address		cal.org
The delay in minutes for messages to be sent	Message_DelayMinutes	Enter a number like 15 (indicating 15 minutes)	0
The interval in seconds between runs of messages being picked up for processing	Message_Process_Interval	Enter a number like 10 (indicating 10 seconds)	10
The machine name and port the Performance Monitoring tool is using, i.e. localhost:8000 NOT http://localhost:8000/DawnLogger	PerformanceLogging_Addresses		NULL
The maximum number of seconds a script can run before the server terminates it.	PolarServer_Script_CommandTimeout_Seconds	The default is 120 seconds (Polar Server sessions only)	120
The time in seconds to wait for the sql command to execute.	PolarServer_SQL_CommandTimeout_Seconds	The default is 60 seconds. (Polar Server Sessions only)	60
The maximum number of seconds a script can run before the server terminates it.	PolarTimer_Script_CommandTimeout_Seconds	The default is 120 seconds (Polar Timer Only)	120
Is the automatic database re-index allowed to run?	RunAutoReIndex	0= No re-index allowed 1=Re-index allowed	0
The (optional) name for the SMTPserver when sending mail using CDOsys	SendMail_CDOsys_SMTPserverName		0
Should the session-management use HTTP-only cookies to prevent the risk of XSS attacks.	Session_SecureCookiesWithHttpOnly	0 = No 1 = Yes	0
Should the session ID passed in the session cookie be crossed checked with the session ID passed in the URL as an extra safeguard against session hijacking	System_SecureCookieBasedSessionsWithUrl	0 = No 1 = Yes	1

Specify the interval in minutes at which the system should check for updates to system settings	SystemSettingCheckForUpdatesInterval		1
Last Date / Time of Timed Message which processed	TimedMessagesLastRunDate Time		2019-02-21 09:32:18
Process any timed messages missed in the last week when service restarted	TimedMessagesProcessMissedMessages	0 = No 1 = Yes	0
How often should timer events run, in seconds?	Timer_TimerInterval	Min: 5 Max: 3600 (1 hour)	5
Email address to receive error emails from timer tasks, leave empty to send no emails on error	TimerManager_ErrorEmail_EmailAddress	Leave empty to send no emails on error	0
List of error numbers which should be ignored, i.e. no email notifications for these errors (separate values with ',' or ';' eg 10,20;30)	TimerManager_ErrorEmail_IgnoredErrorNumbers	Separate values with ',' or ';' eg 10,20;30	0
The name of the computer that is to run the TimerManager, set blank to disable the Timer Manager (default use * for current computer name)	TimerManagerComputerName	Set blank to disable the Timer Manager (default use * for current computer name)	-
Turn Performance Monitoring on using 1, turn it off using 0	Use_PerformanceLogging	1 = On 0 = Off	0
Should the patient screen display a list of users who are viewing the current record?	ConcurrentUsersWarning_Enabled	0 = No 1 = Yes	1
Should a message box be displayed warning the user if another user is viewing the patient record?	ConcurrentUsersWarning_ShowMessageBox	0 = No 1 = Yes	1
Width of the content in a list view.	ListViewContentWidth	Set to 100% to use all available width. Set to 640px to match older versions of DAWN. If the list view content exceeds the width, you	100%

		will have to scroll to see the content. If blank, 100% is assumed.	
The background colour for the patient screen.	PatientForm_BackgroundColor	Leave blank for white or enter a colour in rgb or hexadecimal syntax, i.e. rgb(221,221,236) or #ddddec	rgb(221,221,236)
Is this a DAWN Test system	Test_System	0 = No, it's a production system 1 = Yes, it's a test system	0
Should the banner showing the patient's name and identifiers remain fixed at the top when you scroll the patient screen?	PatientForm_FixBanner	0=Yes, fix for all devices 1=Don't fix on phones and smaller tablets 2=Don't fix on any devices	0
View the Referral count on the Worklist dashboard panel?	Dashboard_ViewReferralCount	0 = No 1 = Yes	0

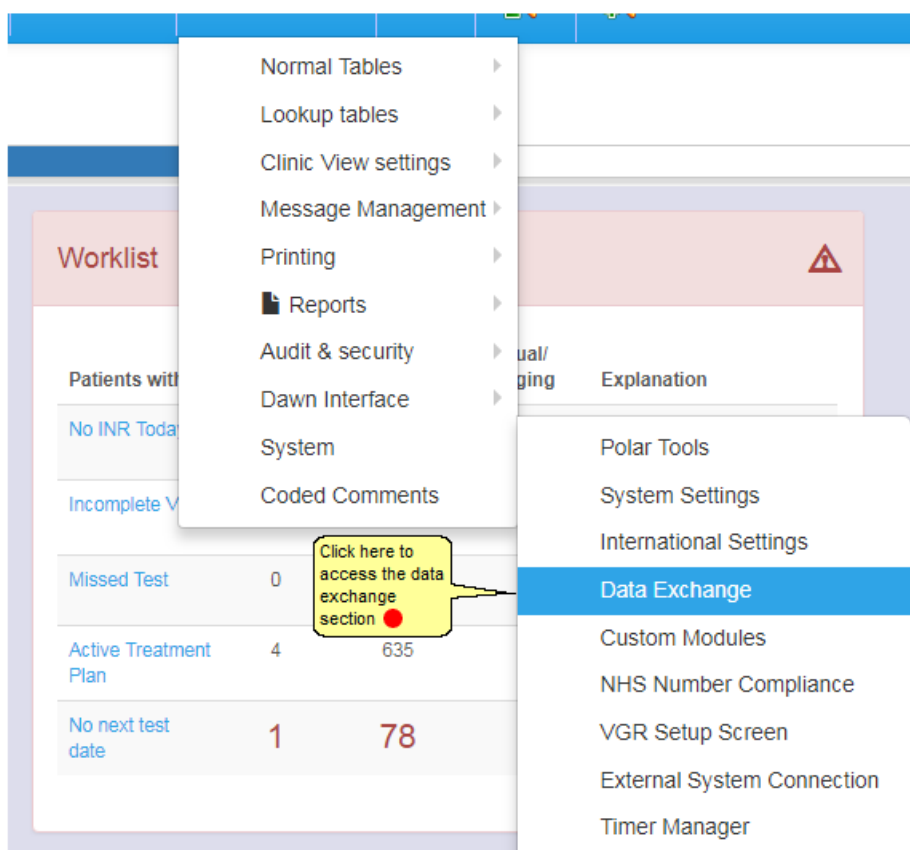




## 25 Data Exchange

Data exchange allows users to easily import and export items such as Dosing Regimes, Message Templates, List Views, Custom Modules and Look up tables to and from their DAWN system, without needing to involve the IT department.

For example, the support team may create a new list view and email it to you as an XML file. You would save the file to your local machine and import it into DAWN using the Data Exchange import facility. The new list view would then be installed and ready for testing.



## 25.1 Export Screen

The export tab allows the user to export different things from their DAWN system like letters, reports, etc

Click here to look at the Import tab

Polar DataExchange

Export Import Customized import

Table to export:  
Anticoagulant Brand

Filter:

Not selected for export

Selected for export

To export an item, highlight the entry in the left hand list and click on this button to move it over to the right hand side 'selected for import' list

The scroll down list can be used to specify which table entries you would like to export from DAWN. You can export several items from multiple tables at once.

Once the items you need are displayed in the right hand list, click on this button to save the xml file produced. This xml file will contain your items

Download selected data

UK Generic (Warfarin)  
Coumadin (USA) (Coumadin)  
Jantoven (USA) (Jantoven)  
Barr (USA) (Warfarin)  
Taro (USA) (Warfarin)  
USA Generic (Warfarin)  
Sinthrome (Sinthrome)  
Dindevan (Dindevan)  
Phenindione (generic) (Phenindik)  
Previscan (Previscan)  
Marcoumar (Marcoumar)  
Dicumarol (Dicumarol)  
Pindione (Pindione)  
Sintrom (Sintrom)  
Excel (Excelfarin)  
Marevan (Marevan)  
kovar (kovar)  
Grindeks (Grindeks)  
Nycomed (Nycomed)  
Canonpharma (Canonpharma)

## 25.2 Import Screen

The screenshot shows the 'Polar DataExchange' interface with a close button (X). Below the header are three tabs: 'Export', 'Import' (which is selected and highlighted in blue), and 'Customized import'. The main area contains the text 'Please give the file to import:' followed by a 'Choose File' button and the text 'No file chosen'. Below this is an 'Upload' button. Two yellow callout boxes provide instructions: one points to the 'Choose File' button stating 'You can browse for xml files that you wish to import into your DAWN system here', and the other points to the 'Upload' button stating 'Once you have picked a file, you can click on the Upload button to start importing the file into the DAWN system'.

Polar DataExchange X

Export Import Customized import

Please give the file to import:

Choose File No file chosen

Upload

You can browse for xml files that you wish to import into your DAWN system here

Once you have picked a file, you can click on the Upload button to start importing the file into the DAWN system

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