



DAWN AC VERSION 7 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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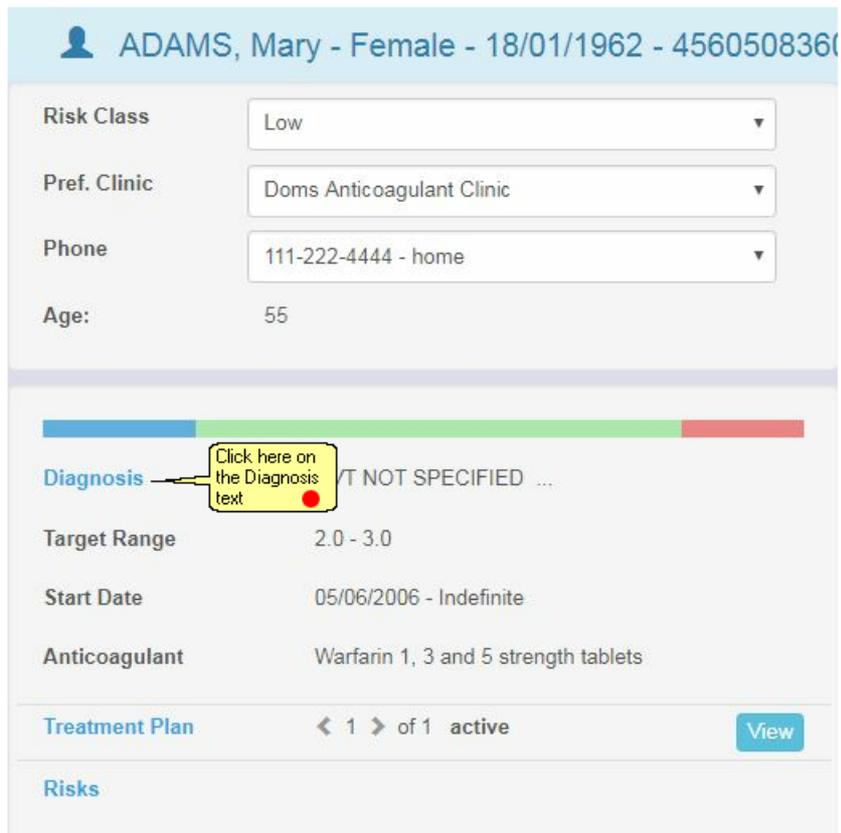
Patient Guard Europe UG (haftungsbeschränkt)
Hauffstr. 41,73765, Neuhausen, Deutschland/
Germany.



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:



ADAMS, Mary - Female - 18/01/1962 - 4560508360

Risk Class	Low
Pref. Clinic	Doms Anticoagulant Clinic
Phone	111-222-4444 - home
Age:	55

Diagnosis Click here on the Diagnosis text NOT NOT SPECIFIED ...

Target Range	2.0 - 3.0
Start Date	05/06/2006 - Indefinite
Anticoagulant	Warfarin 1, 3 and 5 strength tablets

Treatment Plan < 1 > of 1 active [View](#)

Risks

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	
- DVT NOT SPECIFIED	25/11/2006	

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
- 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 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:

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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 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 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 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/

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

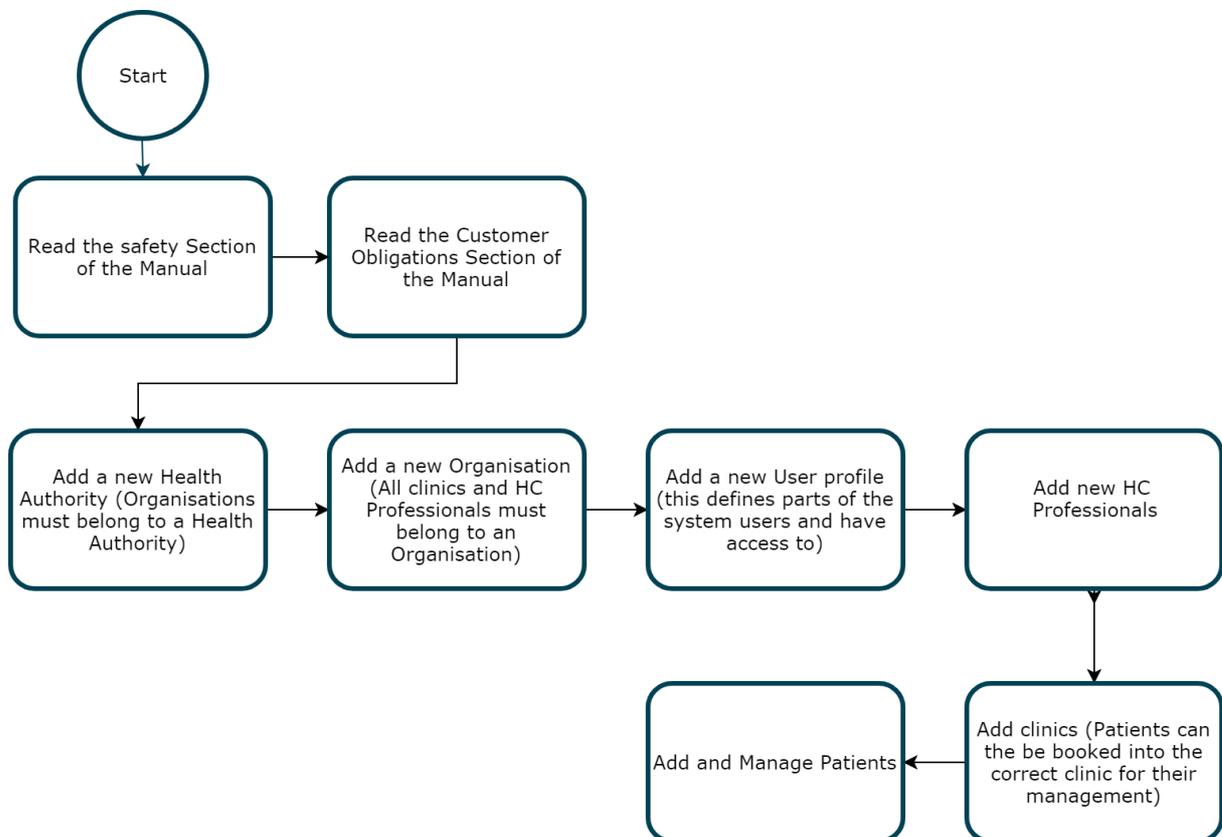
Enter topic text here.

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:

Login

Forgot Password

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

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.

>

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

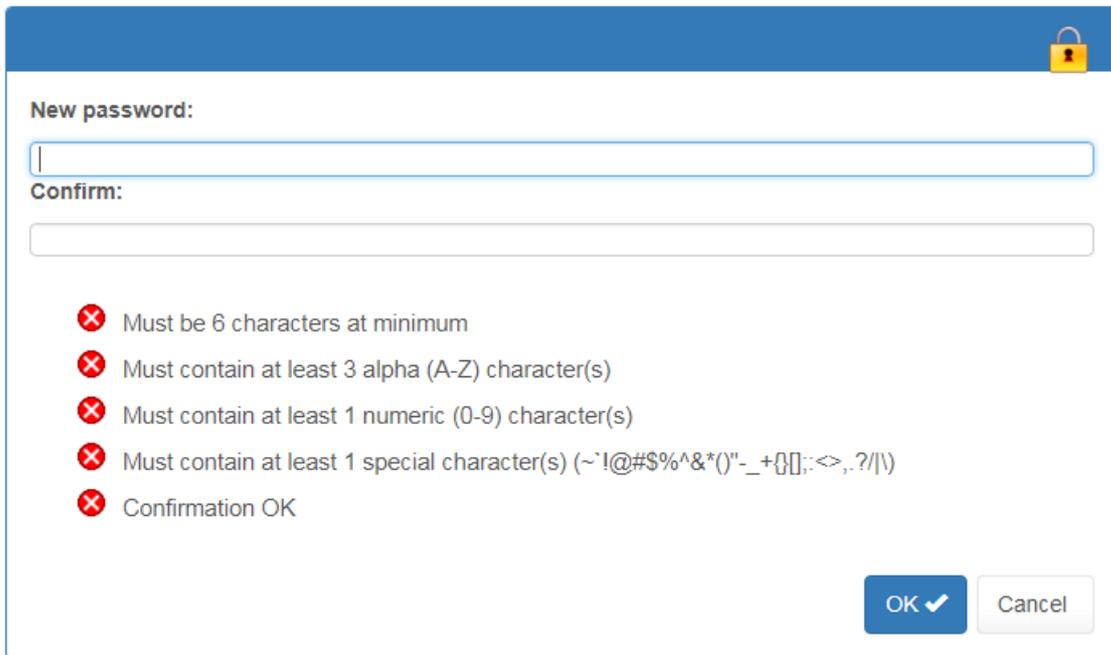
Login

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.

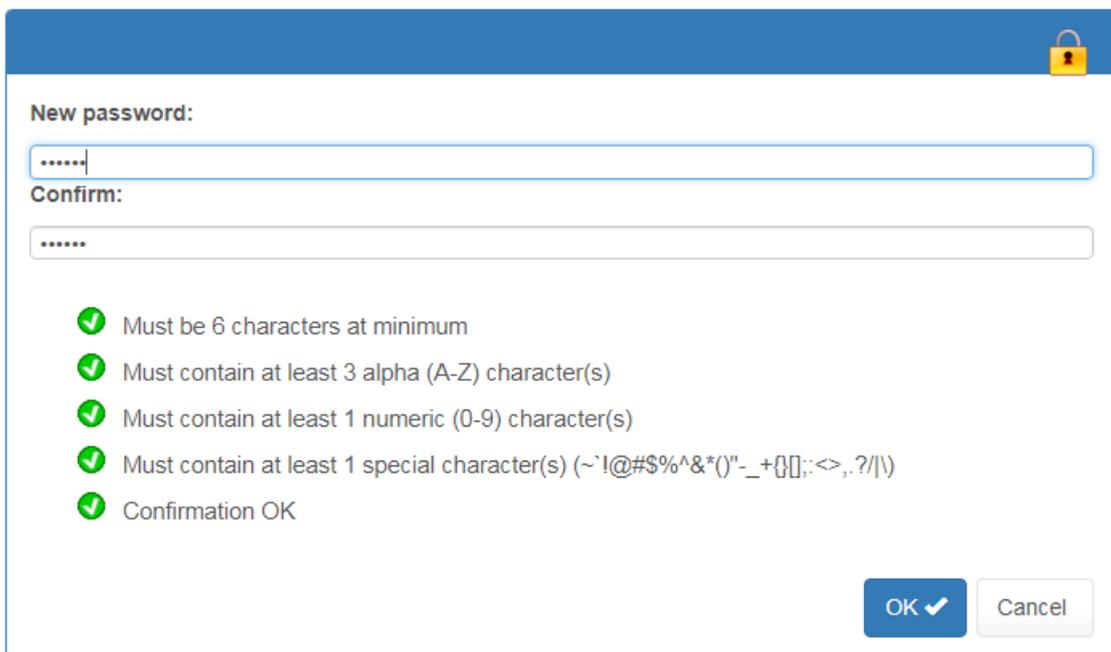


The screenshot shows a dialog box with a blue header and a yellow padlock icon in the top right corner. It contains two text input fields: "New password:" and "Confirm:". Below the fields is a list of five validation requirements, each preceded by a red 'X' icon, indicating that the current input does not meet 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

At the bottom right, there are two buttons: "OK" with a green checkmark 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).



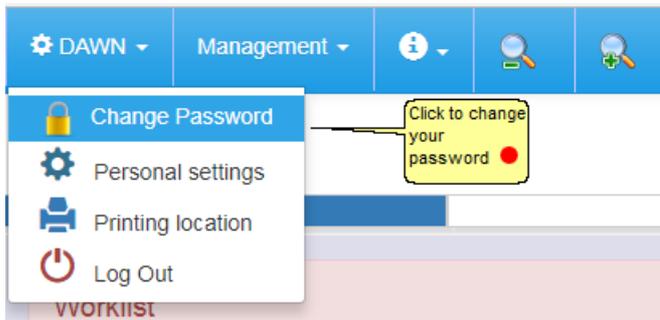
The screenshot shows the same dialog box as above, but now the validation requirements are all marked with a green checkmark, indicating that the password meets all criteria:

- 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 six dots, representing a masked password. The "OK" button with the green checkmark is highlighted, and the "Cancel" button is dimmed.

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

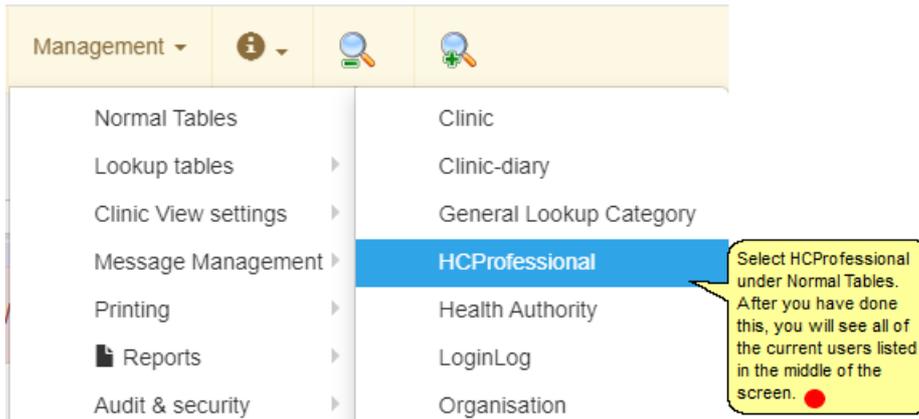
OK ✓ Cancel

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

First name User

 Edit the HCProfessional	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

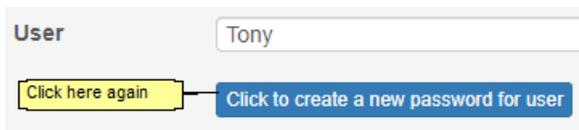
Locked **The failed login count gives the total number of failed logins logged so far for the user. This checkbox indicates whether the account is 'locked' and therefore used of not. A user can have five attempts to login with the incorrect password before their account will be automatically locked. 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



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

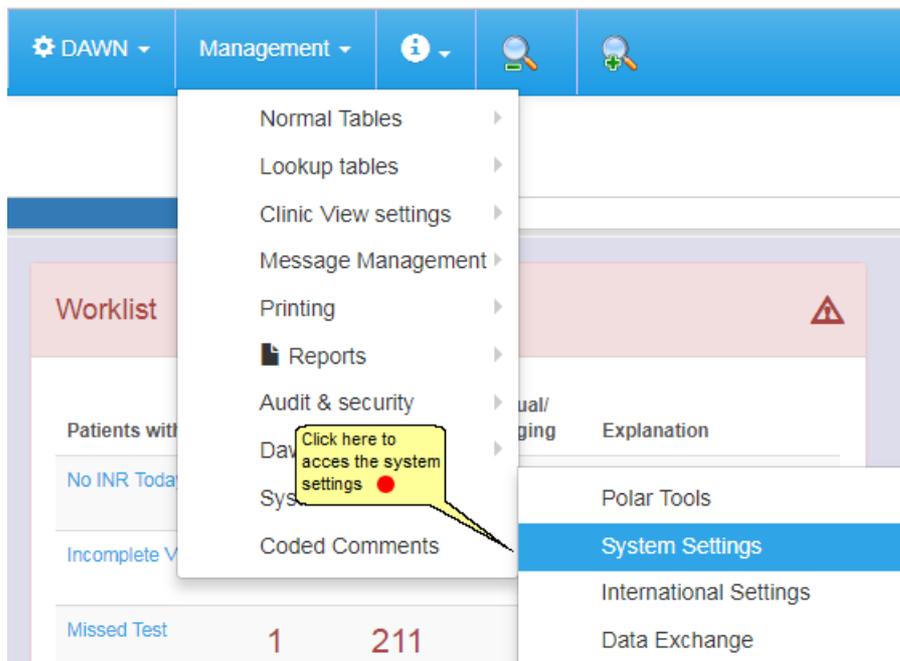
DAWN version 7.0 (1010 and above) supports Active Directory Login. This means users who have a network login can store this ID in DAWN. When they access the application, if DAWN recognises their network ID, it automatically logs them in without prompting them to type a DAWN specific user ID and password.

Enable Active Directory Support

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

Disabling Anonymous Access to the DAWN AC Website

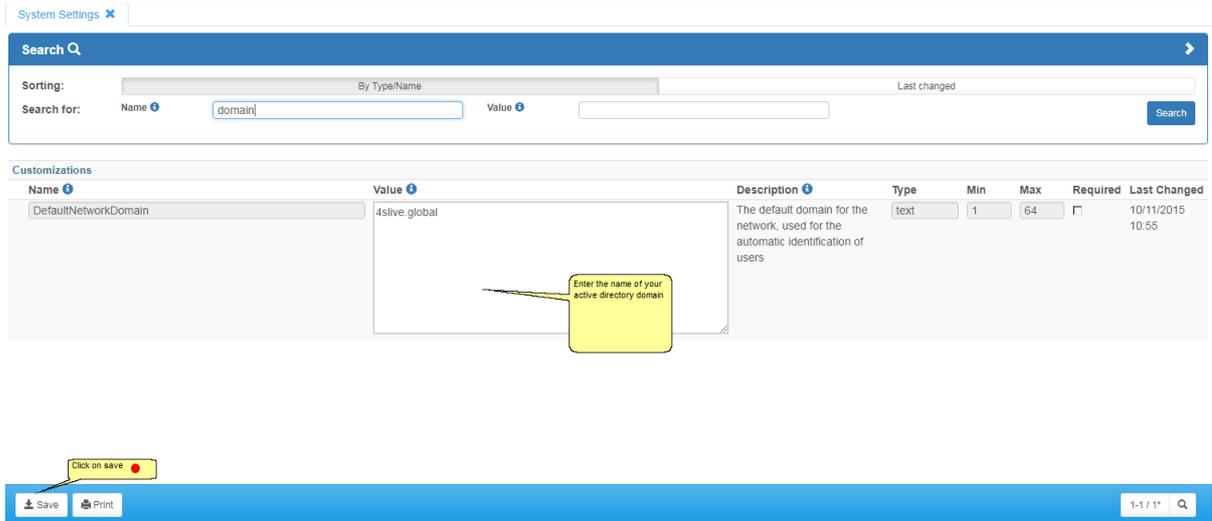
5.2.7.1 Enabling Active Directory Support in DAWN AC



1.

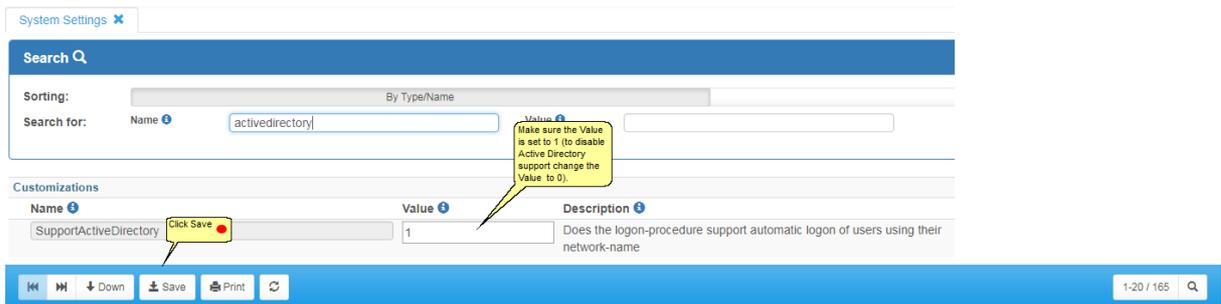
5.2.7.1.1 Amending the system settings - domain

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

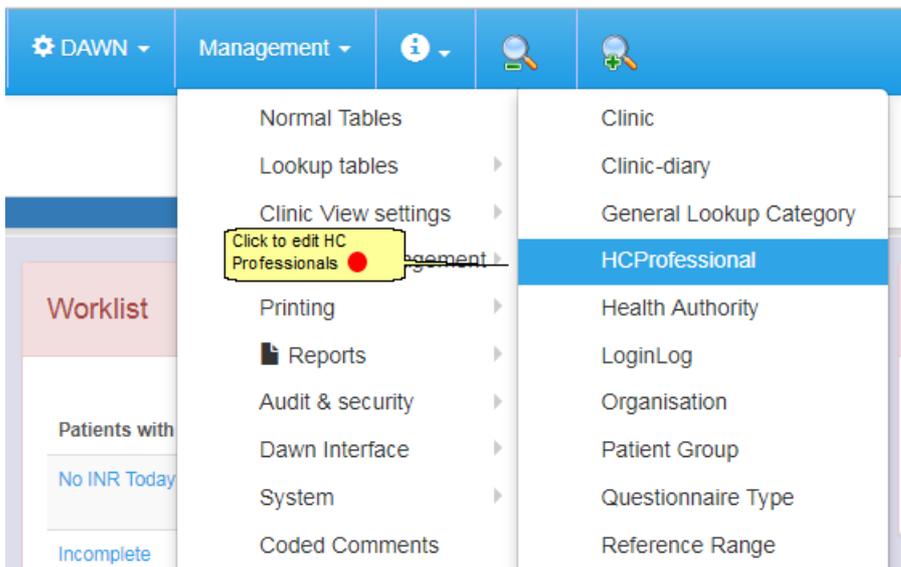


5.2.7.1.2 Amending the system settings - Active Directory

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



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



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@btfwhospitals.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	Ali	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

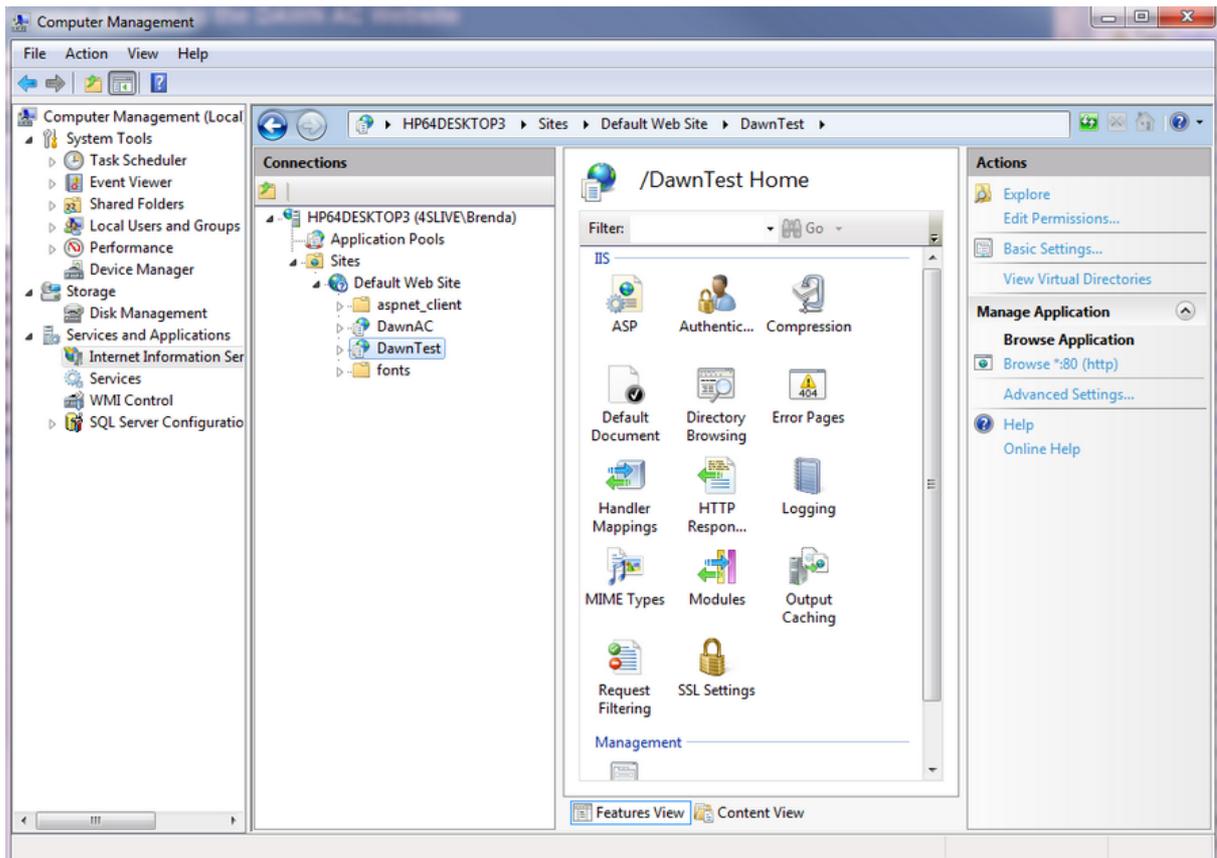
Enter the user's Active Directory Network User ID in the NetworkName field.

Click to save

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

Either click Log Out or just close the window with the X

Patients with	Induction	Maintenance	Manual/ Bridging	Explanation
No INR Today	0	2	0	Awaiting result / yet to attend
Incomplete Visits	0	41	2	Dose needs entering and/or authorising
Missed Test	4	289	5	Needs rescheduling

Database name	Database size	Last Database backup	Log size (MB)
DawnAC	1824	18/10/2017 11:36	5

5.4 DAWN Front Page

Version 8.0.0 (1356)

The version of DAWN you are using is shown here

This shows a summary of patients on your DAWN system. Click on any of the hyperlinks to view the list of patients

The current printing location is shown here

This tally shows you when the DAWN database was last backed up

This tally shows how many patient licenses you have remaining

The status of your inbound interface is shown here

The status of your outbound interface is shown here

See the overall % time in range for the past 7 days

Patients with	Induction	Maintenance	Manual/ Bridging	Explanation
No INR Today	0	2	0	Awaiting result / yet to attend
Incomplete Visits	1	47	3	Dose needs entering and/or authorising
Missed Test	0	116	4	Needs rescheduling
Active Treatment Plan	4	934	5	Non-stopped treatment plans
No next test date	1	77	4	Needs scheduling

Database name	Database size	Last Database backup	Log size (MB)
DawnAC	1824	18/10/2017 11:36	7

Total	Active	Unused
1000	980	320

Messages	Interface	Email	SMS	Fax	Mail	Total
Waiting to be sent	0	3	0	0	329	332
Failed to be sent	0	1	0	0	0	1

Below range	In range	Above range
0%	94%	0%

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.

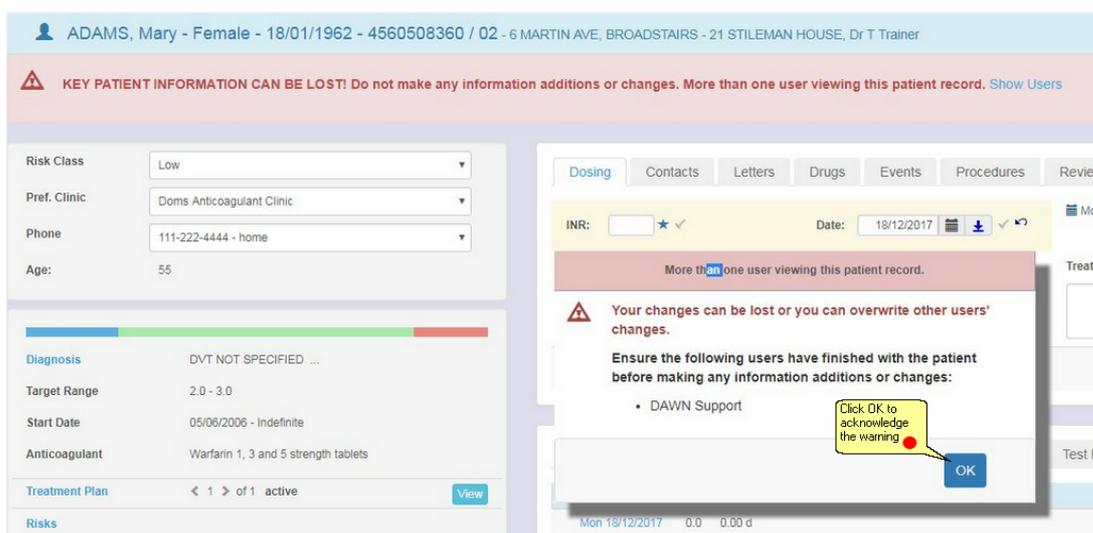
The Concurrent User Warning does not stop a user from updating the

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

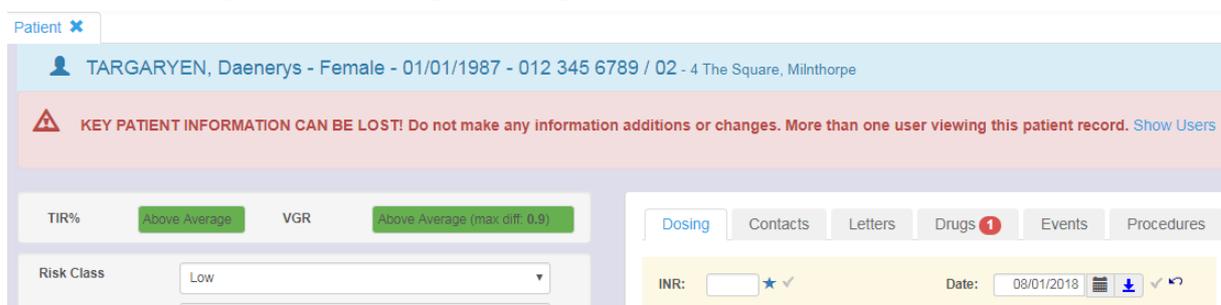
If you open a patient record and there is at least one other person already viewing the same patient record then a warning will be displayed that other users are viewing this patient record. The warning will list the other users currently viewing this patient record.



The screenshot shows a patient record for Mary Adams. A red warning banner at the top states: "KEY PATIENT INFORMATION CAN BE LOST! Do not make any information additions or changes. More than one user viewing this patient record. Show Users". A pop-up window is displayed in the center, containing the following text: "More than one user viewing this patient record.", "Your changes can be lost or you can overwrite other users' changes.", and "Ensure the following users have finished with the patient before making any information additions or changes:". Below this, a list shows "DAWN Support" as a user. A yellow callout bubble points to an "OK" button, stating "Click OK to acknowledge the warning". The background interface includes fields for Risk Class (Low), Pref. Clinic (Doms Anticoagulant Clinic), Phone (111-222-4444 - home), Age (55), and a list of treatments including Warfarin.

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

5.4.1.2 Acknowledge the warning message



The screenshot shows the same patient record for Daenerys Targaryen. The red warning banner is still visible at the top. The interface shows various tabs like "Dosing", "Contacts", "Letters", "Drugs", "Events", and "Procedures". The "Drugs" tab is highlighted with a red notification icon. The background interface includes fields for TIR% (Above Average), VGR (Above Average (max diff: 0.9)), Risk Class (Low), and Pref. Clinic.

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.

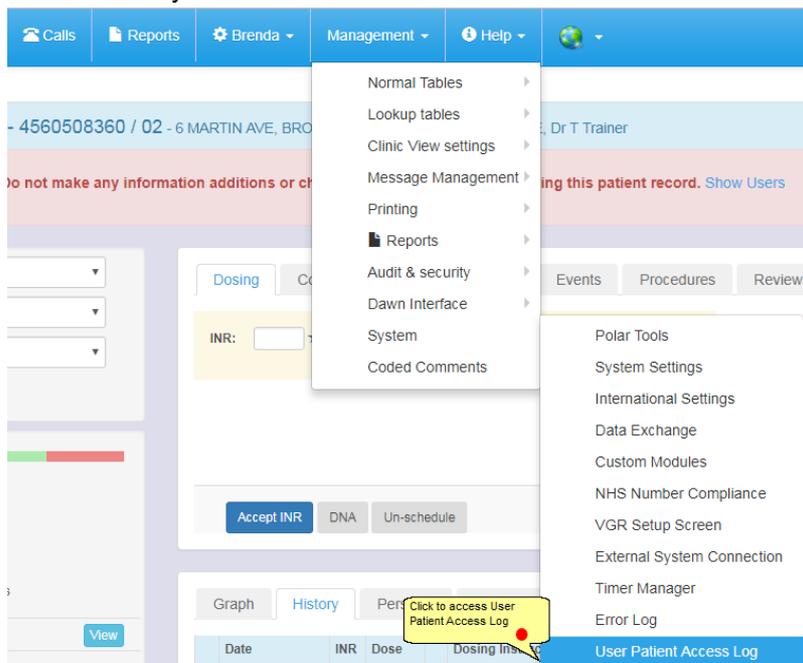
5.4.1.3 Troubleshooting

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.

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.

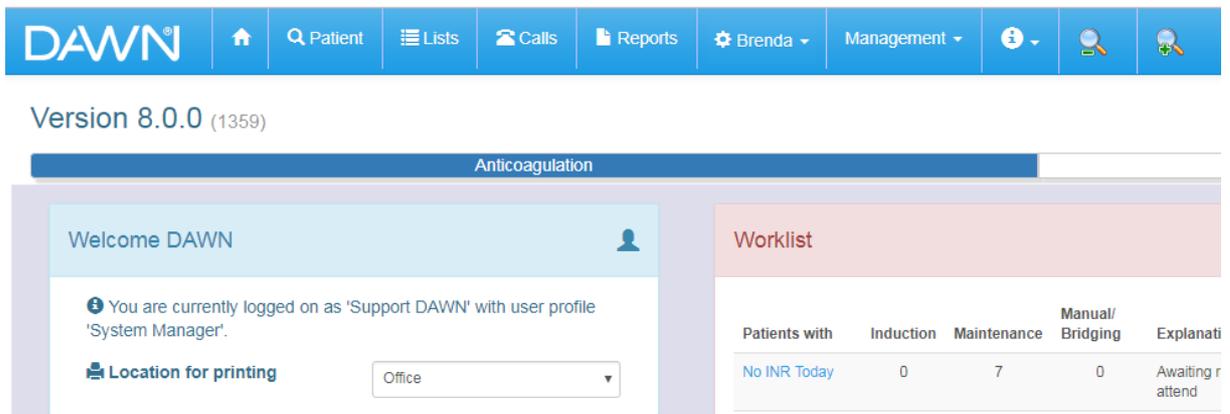
5.5 Distinguishing live from test systems

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

DAWN Live

DAWN Test

5.5.1 DAWN Live System



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

Test System 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

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

Brenda Management

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

Database

Database name

Click on System Settings

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
ive 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

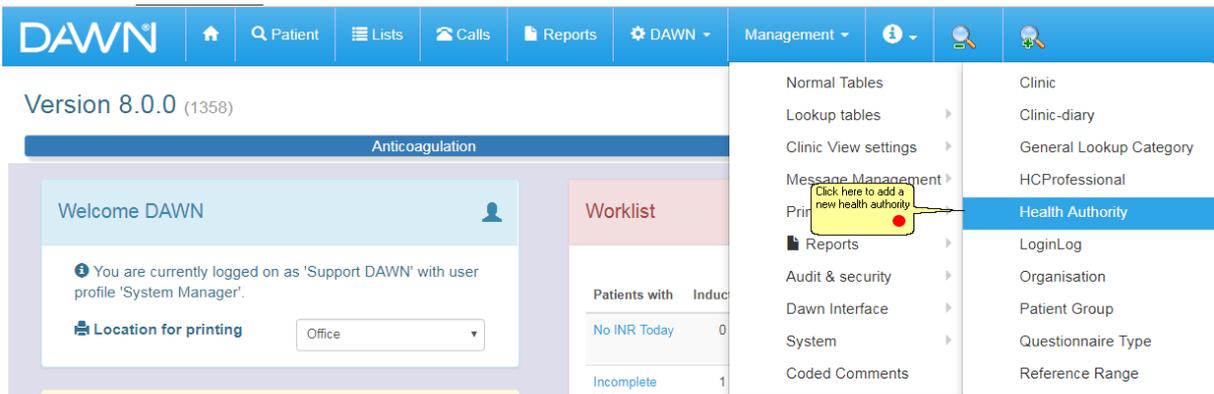
Name ?	Value ?	Description ?	Type	Min	Max
Test_System	<input type="text" value="0"/>	Is this a DAWN Test system: 0 - No, it's a production system; 1 - Yes, it's a test system	Integer	<input type="text" value="0"/>	<input type="text" value="1"/>

Annotations:
- A yellow callout box points to the search input with the text "Search for Test_System".
- A yellow callout box points to the value input with the text "Set the value to 1 to display the test system or 0 for live".

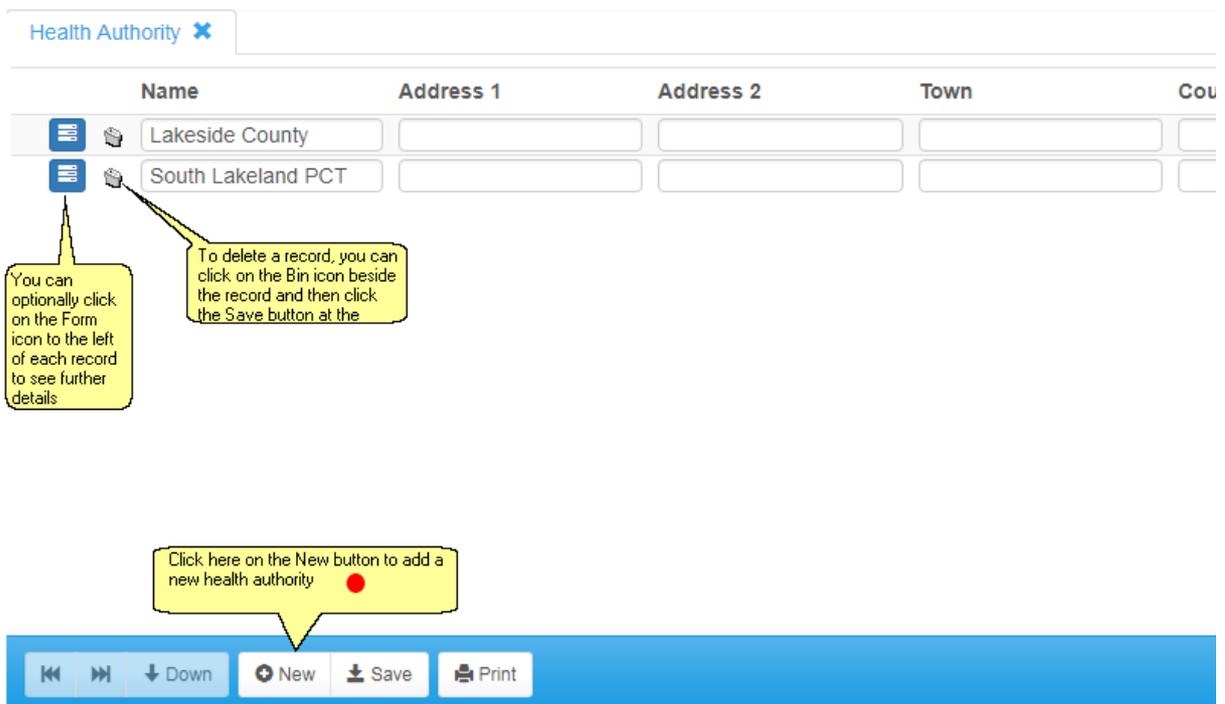
6 Configuring the System

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

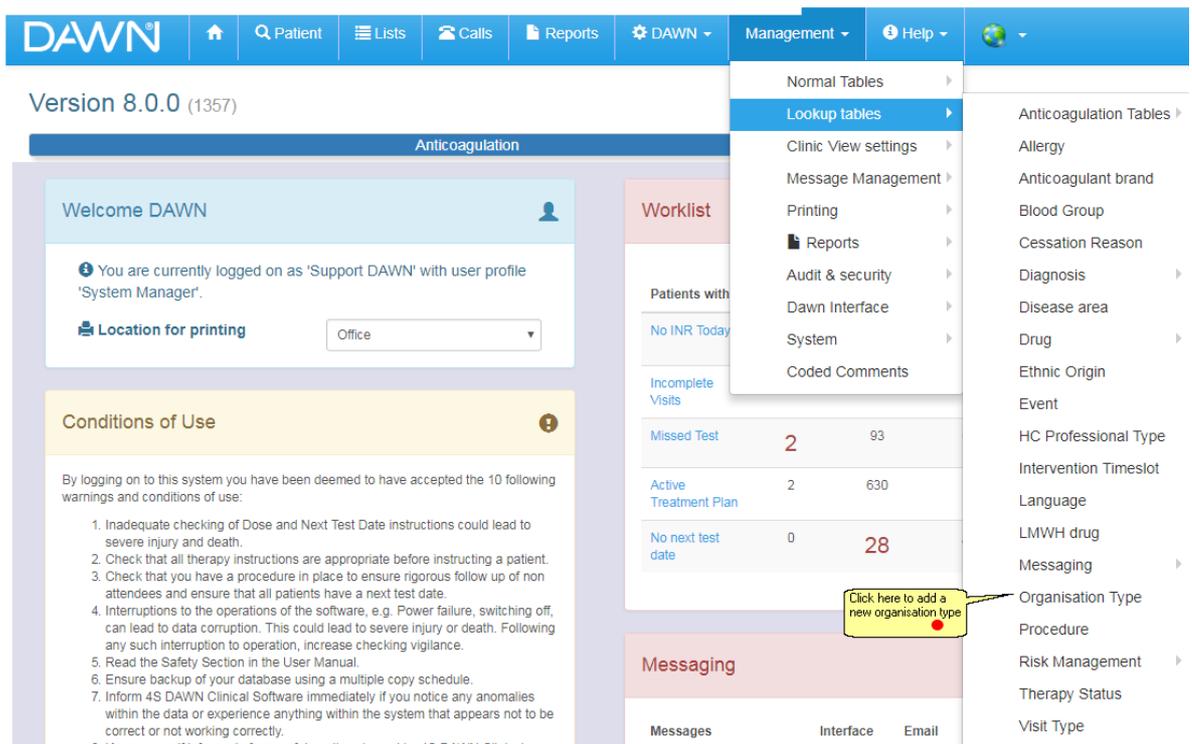


6.1.2 Adding/Editing Health Authorities

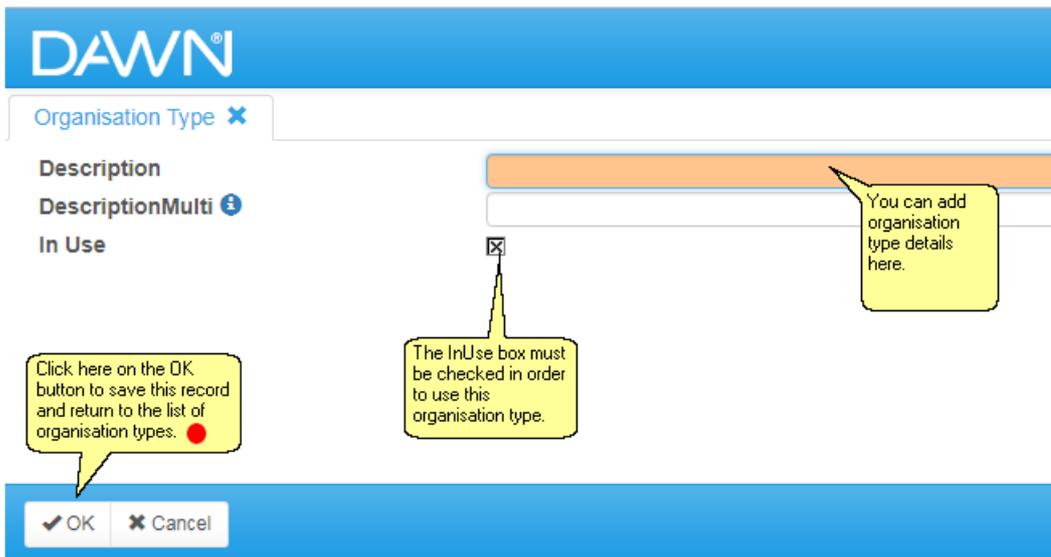
The screenshot shows the DAWN system interface for adding or editing health authorities. The header is blue with the DAWN logo. Below the header, there is a form titled "Health Authority" with a close button (X). The form contains several input fields: Name, Address 1, Address 2, Town, County, Postcode, Telephone, Fax, and Email. A yellow callout box points to the Name field with the text "Enter a name and other details". Below the form, 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 box 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: ●".

6.2 Adding/Editing Organisation Types

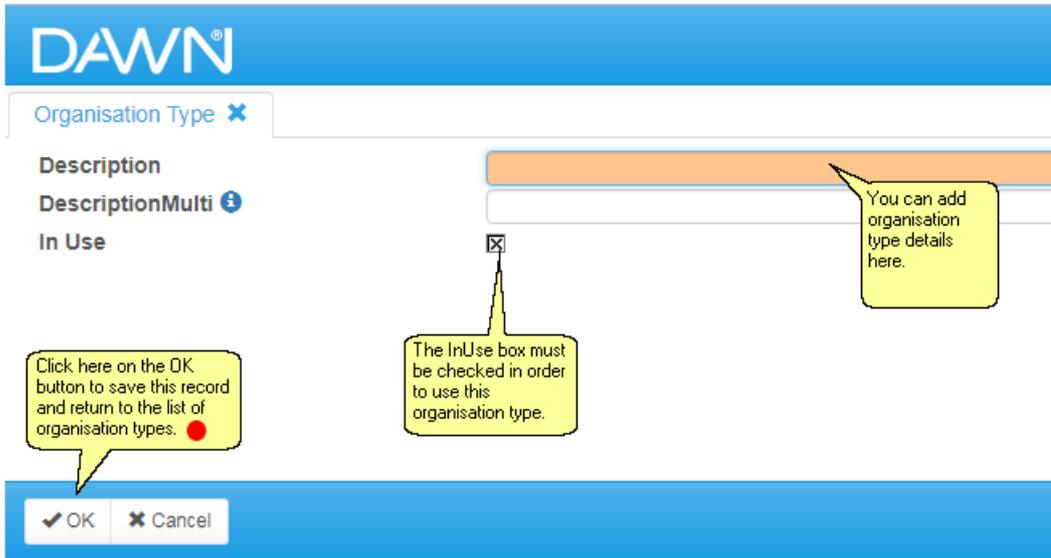
If you need to add a type for an organisation that does not exist in the standard list, new types can be added here.



6.2.1 List of Organisation Types

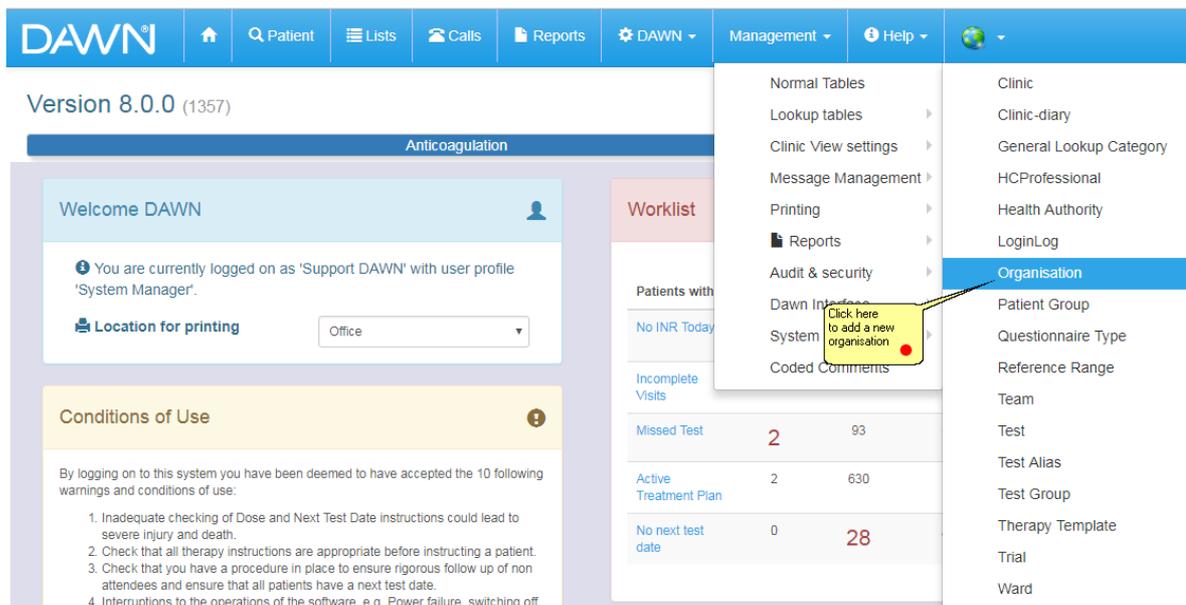


6.2.2 Adding/Editing an Organisation Type



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.



6.3.1 List of Organisations

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

Organisation ✕

Search

Selection:

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

The screenshot shows a web form titled "Organisation" with a sub-header "(New record)". The form contains the following elements:

- Type:** A dropdown menu with "GP Practice Group" selected. Callout: "An organisation type must be chosen from the list".
- Name:** A text input 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", "Health care professionals", "Teams", "Wards", "Location", "Clinics", "Monitoring", "Patient groups", and "Print station". The "Monitoring" tab is highlighted with a red dot. Callout: "If this organisation is going to monitor patients, click on the Monitoring tab".
- Address Fields:** A series of text input fields for "Address 1", "Address 2", "Town", "County", "Postcode", "Telephone", "Fax", "Email", and "Code".
- Health Authority:** A dropdown menu at the bottom with "(Make a choice)" selected. Callout: "A health authority must be selected".
- Buttons:** "OK" and "Cancel" buttons at the bottom left. Callout: "Click here to save the record." (pointing to the OK button).

6.3.2.1 Mark the organisation as the monitoring organisation

The screenshot shows a 'New record' form for an 'Organisation'. The form includes the following fields and callouts:

- Type:** A dropdown menu with 'GP Practice Group' selected. Callout: 'An organisation type must be chosen from the list'.
- Name:** A text input 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'.
- Address:** A set of tabs including 'Address', 'Health care professionals', 'Teams', 'Wards', 'Location', 'Clinics', 'Monitoring', 'Patient groups', and 'Print station'. The 'Monitoring' tab is highlighted. Callout: 'If this organisation is going to monitor patients, click on the Monitoring tab'.
- Address 1, Address 2, Town, County, Postcode, Telephone, Fax, Email, Code:** A series of text input fields.
- Health Authority:** A dropdown menu with '(Make a choice)' selected. Callout: 'A health authority must be selected'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom left. Callout: 'Click here to save the record.' (pointing to the OK button).

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

- 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

Organisation	Description
Dawn Hospital	Ward 18
Moor Street	Ward 10

Navigation: Back, Forward, 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' field with a close button (X). The form contains three main sections: 'Organisation', 'Description', and 'In Use'. The 'Organisation' field is a dropdown menu with '(Make a choice)' selected. The 'Description' field is a text input area. The 'In Use' field is a checkbox that is checked. At the bottom of the form, there are two buttons: 'OK' and 'Cancel'. Several yellow callout boxes provide instructions: one points to the Organisation dropdown stating it is mandatory; another points to the Description 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 (Make a choice)

Description

In Use

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

OK Cancel

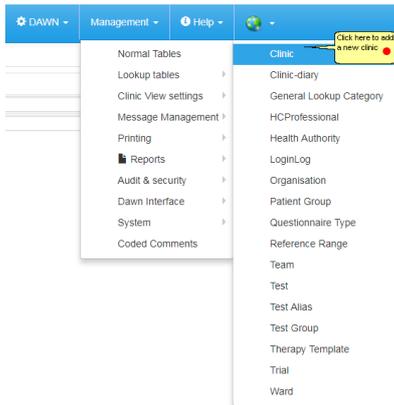
You need to specify an Organisation that the Ward belongs to from the scroll down list here. This field is mandatory.

A Ward name can be added here.

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

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

Clinic X

Disease area: Anticoagulation
 Description: Anticoagulation Ripon District Nurses
 Organisation: Dawn Hospital
 Local Code: B1
 In Use: [Slot Templates](#) [Adjustments](#) [Create/Delete Diary](#)

1 - 2 / 2

Start Time	End time	Max. cap.	Reserved cap.	Interval	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00	12:00	30	15	1 hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09:00	17:00	1	0	5 minutes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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"/>
NQAC	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 Milnthorpe self (RC)	<input checked="" type="checkbox"/>
Anticoagulation	Dawn Hospital	zavenue	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zBank Hill	<input type="checkbox"/>
Anticoagulation	Dawn Hospital	zbarnsley	<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	zPotter	<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"/>

Click here to add a new clinic

1142

6.5.2 Adding/Editing Clinic Details

The screenshot shows a web form titled "Clinic" with a close button (X). The form contains the following fields and options:

- Disease area:** A dropdown menu with the text "(Make a choice)". A callout bubble points to it with the text: "A Disease area must be specified for the clinic, eg, anticoagulation".
- Description:** A text input field. A callout bubble points to it with the text: "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:** A dropdown menu with the text "(Make a choice)".
- Local Code:** A text input field.
- In Use:** A checkbox that is checked. A callout bubble points to it with the text: "The in use box must be checked in order to use this clinic".
- Navigation tabs:** "Slot Templates" (active), "Adjustments", and "Create/Delete Diary".
- Message box:** A large white box containing the text: "You will need to save this new record before you can add related records".
- Default Device:** A dropdown menu with the text "(None selected)". A callout bubble points to it with the text: "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."
- Buttons:** "OK" and "Cancel" buttons at the bottom.

A callout bubble at the bottom left points to the "OK" button with the text: "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 slot templates. The top navigation bar includes the DAWN logo and menu items: Home, Patient, Lists, Calls, Reports, DAWN, Management, and Help. Below the navigation bar, there is a breadcrumb trail for "Clinic".

The main form area contains the following fields and options:

- 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 right-pointing arrow.
- 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".

The main content area displays a message: "There are no items to display". A yellow callout box points to the "Add a new record" button and contains 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. ●

6.5.4 New Slot Template Form

The screenshot shows the 'New Slot Template Form' in the DAWN system. The form is titled 'Clinic: Meadowside > ClinicSlotTemplate: (New record)'. It 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 the following information:

- Start and End Time:** 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.
- Interval:** The slot time interval can be added here. So on this record, DAWN will create clinic slots of 5 minutes each from 8:00am to 3:00pm. Each five minute slot will have a capacity of 1 patient, with 1 reserved slot.
- Days:** You can specify which days you would like this slot template to apply to here.
- Reserved Capacity:** 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.

At the bottom, there is a button labeled 'Click here to save the record' with a red dot, and a footer bar with 'OK' and 'Cancel' buttons.

6.5.5 Saved Slot Template Form

Clinic ✕

Disease area: Anticoagulation

Description: Meadowside

Organisation: The Hospital

Local Code: [Empty]

In Use:

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 interface for creating a clinic adjustment record. The form is titled "ClinicSlotAdjustedCapacity" and is for the "Clinic: Anticoagulation Ripon District Nurses". 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 text input field.
- Cap. adj.:** A text input field.
- Res.Cap. adj.:** A text input field.

Callouts provide the following instructions:

- "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."
- "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."
- "Clinic adjustments can be used to either increase or reduce the number of available clinic slots on a particular day or period of time."
- "Click here to save this record" (pointing to a red dot).

At the bottom of the form, there are "OK" and "Cancel" buttons.

6.5.8 Saved Clinic Adjustment Form

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

Clinic | ClinicSlotTemplate

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

Slot Templates | **Adjustments** | Create/Delete Diary

Callout: Click here to create the diary

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

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

Clinic

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

Slot Templates | Adjustments | **Create/Delete Diary**

Legend:

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

Last day in diary: No diary available

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

Buttons: Create diary, Remove data from diary

Callouts:

- 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)
- Once you have created your clinic diary, DAWN will automatically extend these diary slots into the future for you
- Click here to create the diary for the next chosen number of weeks
- You can also delete the diary for a set number of weeks here

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

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)							

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**

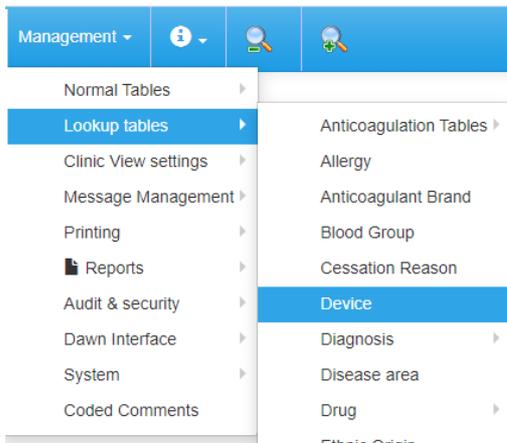
6.6 Adding Devices

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



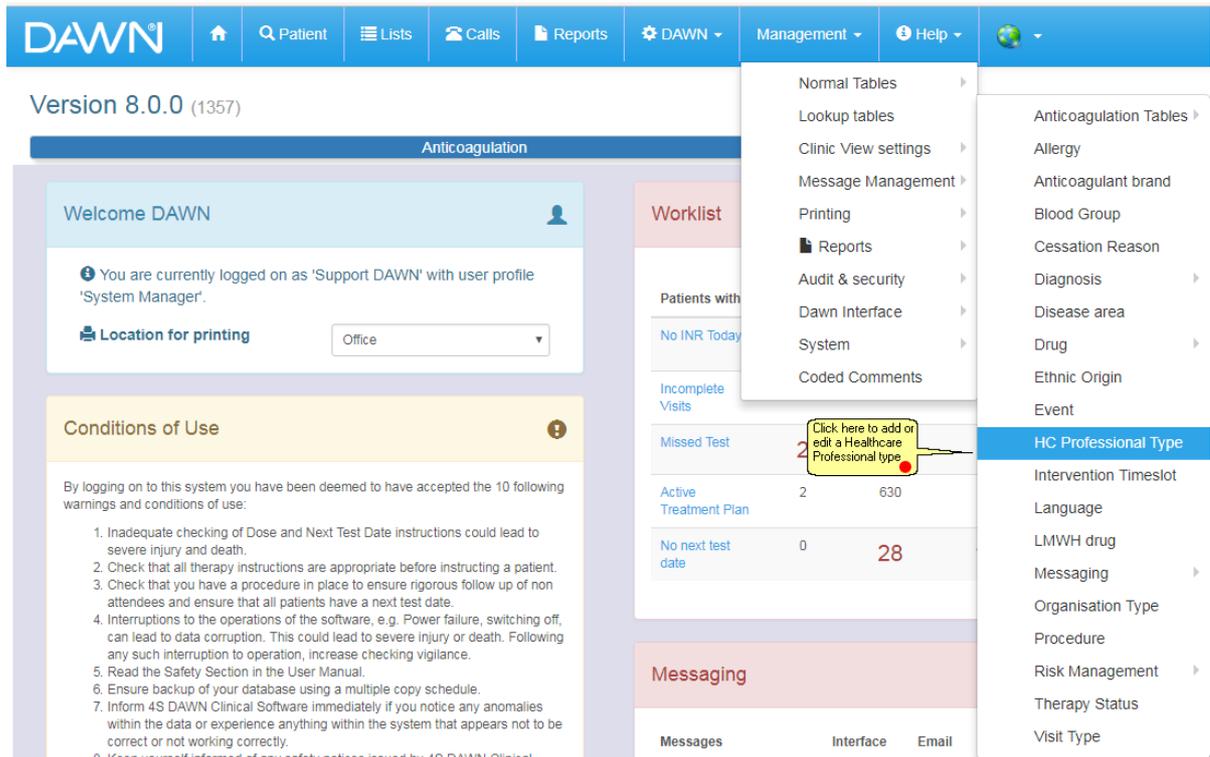
The screenshot shows the 'Device' form in the DAWN system. The form includes the following fields and instructions:

- Device Model Name:** A text input field with a callout: "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."
- Device Identifier:** A text input field.
- Test Code Value:** A text input field.
- Notes:** A text area with a callout: "Optionally enter a test code associated with the tests performed by the device and notes about the device itself."
- In Use:** A checkbox that is checked.
- Instructions:** A text box containing the message: "You will need to save this new record before you can add related records." Below this, another callout states: "Once you have saved the new record and selected it as the default device for one or more clinics, the clinics appear here."

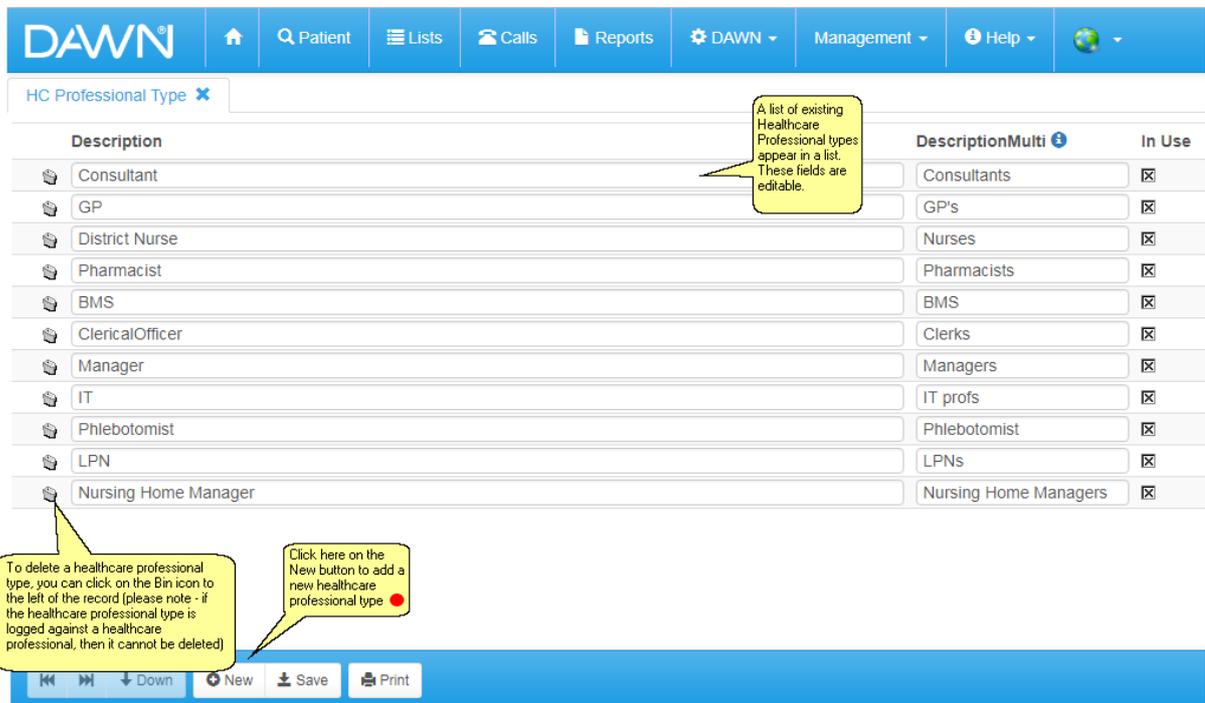
At the bottom of the form, there are 'OK' and 'Cancel' buttons.

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.



6.7.1 List of Healthcare Professional Types



6.7.2 Adding/Editing Healthcare Professional Type

DAWN®

HC Professional Type ✕

Description

DescriptionMulti ⓘ

In Use

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

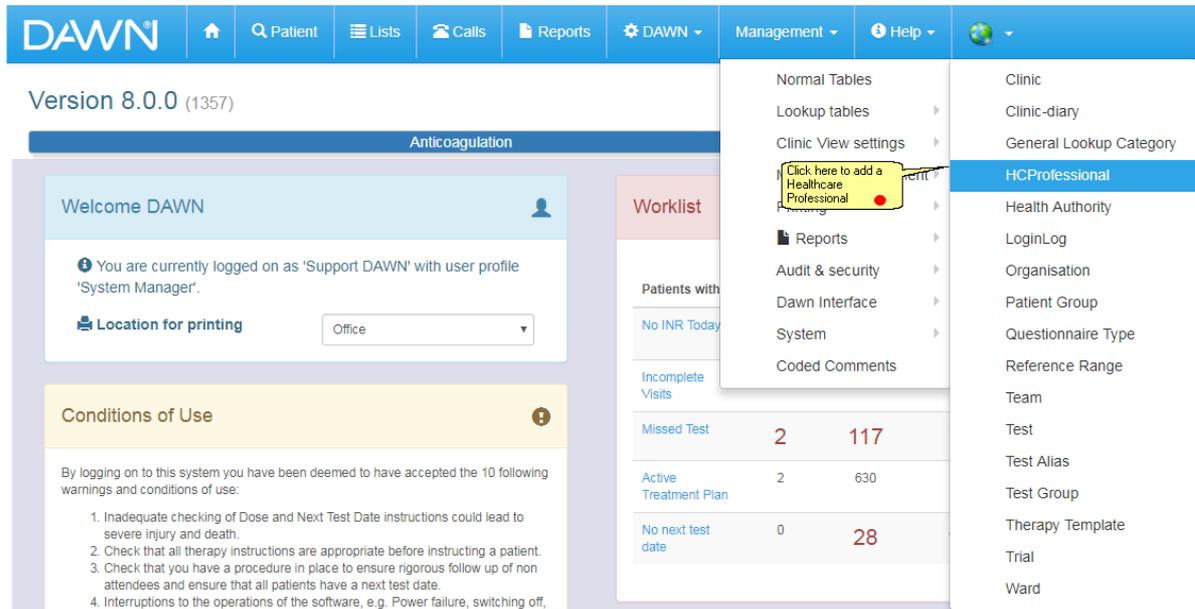
The InUse box must be checked in order to use this healthcare professional type.

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

✓ OK ✕ Cancel

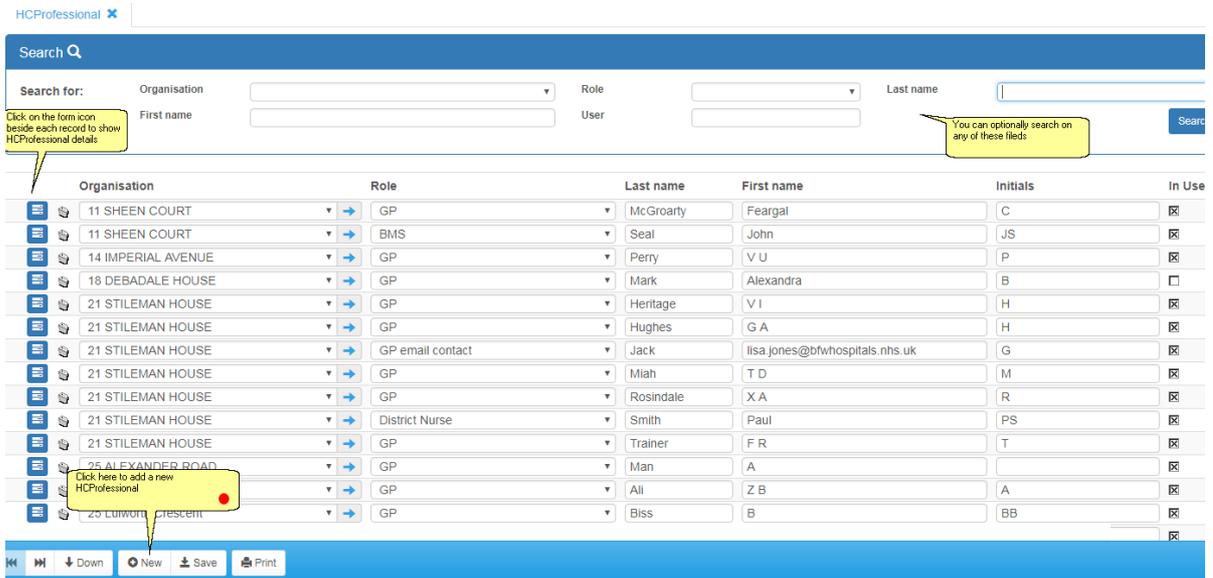
6.8 Adding/Editing Healthcare Professionals

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.



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

6.8.1 List of Healthcare Professionals



6.8.2 Adding/Editing Healthcare Professional Details

HCPProfessional ×

(New record)

Organisation

Role

Last name

First name

Initials

In Use

Address info Teams Account info Notes Patients

Title

National Number

Local Number

Direct Telephone

Mobile

Email

Direct Fax

Messaging method:

The in use box must be checked to use this record

Choose an organisation and Role from the drop down lists

Add a first name and last name

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

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 a 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

Role

Last name

First name

Initials

In Use 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 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.

Password Expires

Failed logins

Failed logins (all) 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.

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

Last login date

Total logins

User Profile

Network Login A network name can optionally be added here. This can be used when using Windows authentication type login. 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 page. The form contains the following fields: 'The Hospital' (The Hospital), 'Pharmacist', 'Brown', 'Mary', and a checkbox. Below the form are tabs for 'Teams', 'Account info', 'Notes', and 'Patients'. A message box displays the password 'zcu7r3' and the text 'The user will need to immediately set a new password when first logging in.' An 'OK' button is present. Callout boxes provide additional information: 'This password can be changed by the HC Professional at the DAWN login screen.', 'A random password is generated for your new record. This can be used along with the user name to log into DAWN.', and 'Click here on the OK button to return to the list of HC Professionals'.

6.9 Adding/Editing User profiles

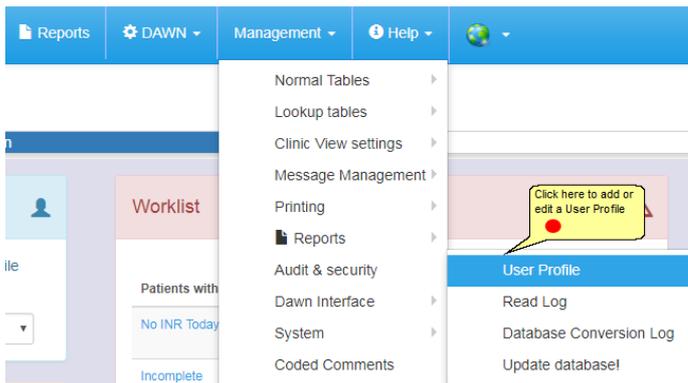
Several User Profiles can be configured in DAWN and applied to different Healthcare Professionals. Some users require read-only access while others will need to edit certain values in DAWN.

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.

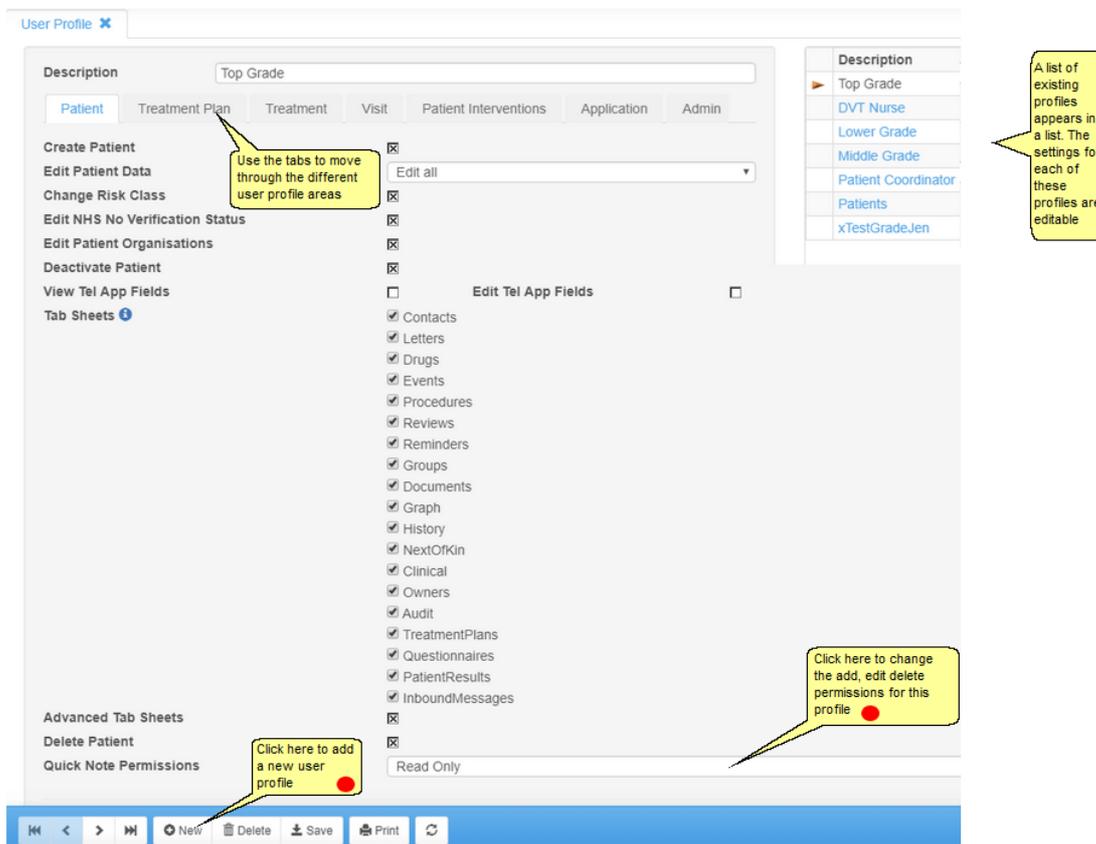


If there are multiple application areas on one database, when creating or amending user profiles, ensure the application area specific permissions have been set on the individual user profiles.

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:

Patient
 Treatment Plan
 Treatment
 Visit
 Patient Intervention
 Admin

Create Patient
Edit Patient Data
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

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

Patient **Treatment Plan** Treatment Visit Patient Interventions Application Admin

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 (None selected)

Patient Treatment Plan **Treatment** Visit Patient Interventions Application Admin

Schedule Treatment (None selected)

Unschedule Treatment (None selected)

Enter And Accept INR (None selected)

DNA Treatment (None selected)

Accept Dose (None selected)

Authorise Dose (None selected)

Authorise Manual/Bridging Treatment

Reset Treatment (None selected)

Add/Edit Treatment Records

Customise Dose Instructions

Patient Treatment Plan Treatment **Visit** Patient Interventions Application Admin

Edit Visit (None selected)

Schedule Visit (None selected)

Unschedule Visit (None selected)

DNA Visit (None selected)

Close Visit (None selected)

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

➕ Add a new record → 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

➕ Add a new record

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

✓ OK ✗ Cancel 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

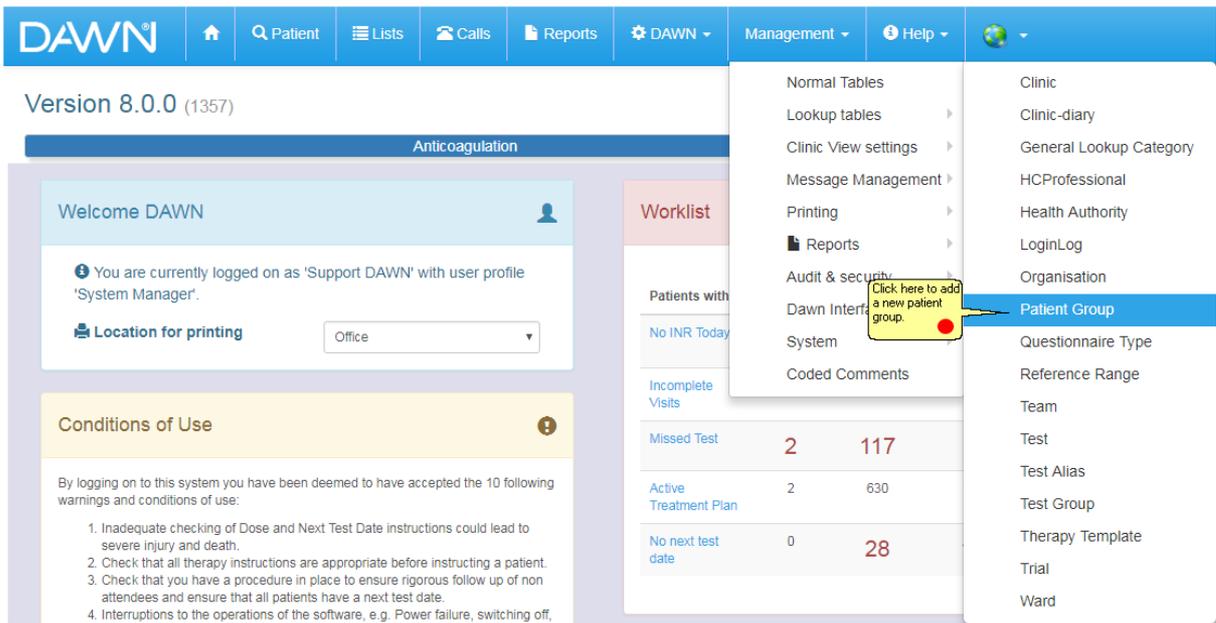
Quick Note Permissions

- Add New Only
- Read Only
- Add New Only**
- Add and Edit
- Add, Edit and Delete

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.



6.10.1 List of Patient Groups



6.10.2 New Patient Group Form

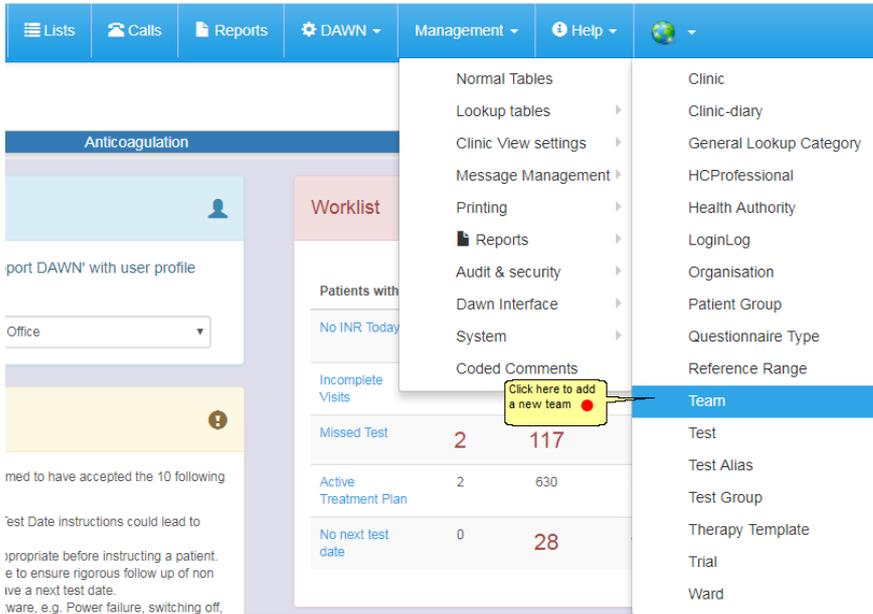
The screenshot shows the 'New Patient Group Form' in the DAWN system. The form has a blue header with the 'DAWN' logo and a globe icon. Below the header, there is a breadcrumb 'Patient Group' with a close icon. The form contains the following elements:

- Description:** An empty text input field.
- Organisation:** A dropdown menu currently showing 'Dawn Hospital'.
- Main Content Area:** A large white box containing the text: 'You will need to save this new record before you can add related records'. Two callouts point to this area:
 - One callout points to the text, stating: 'Once this record is in use, the patients belonging to this group will be displayed in this box.'
 - Another callout points to the 'Organisation' dropdown, stating: 'The Organisation that the user is logged against will automatically be populated here.'
- In Use:** A label followed by a checked checkbox. A callout points to the checkbox, stating: 'The In Use check box must be checked in order to use this patient group.'
- Buttons:** At the bottom, there are two buttons: 'OK' (with a checkmark icon) and 'Cancel' (with an 'X' icon). A callout points to the 'OK' button, stating: 'Click here on the OK button to save this record and return to the list of patient groups.'

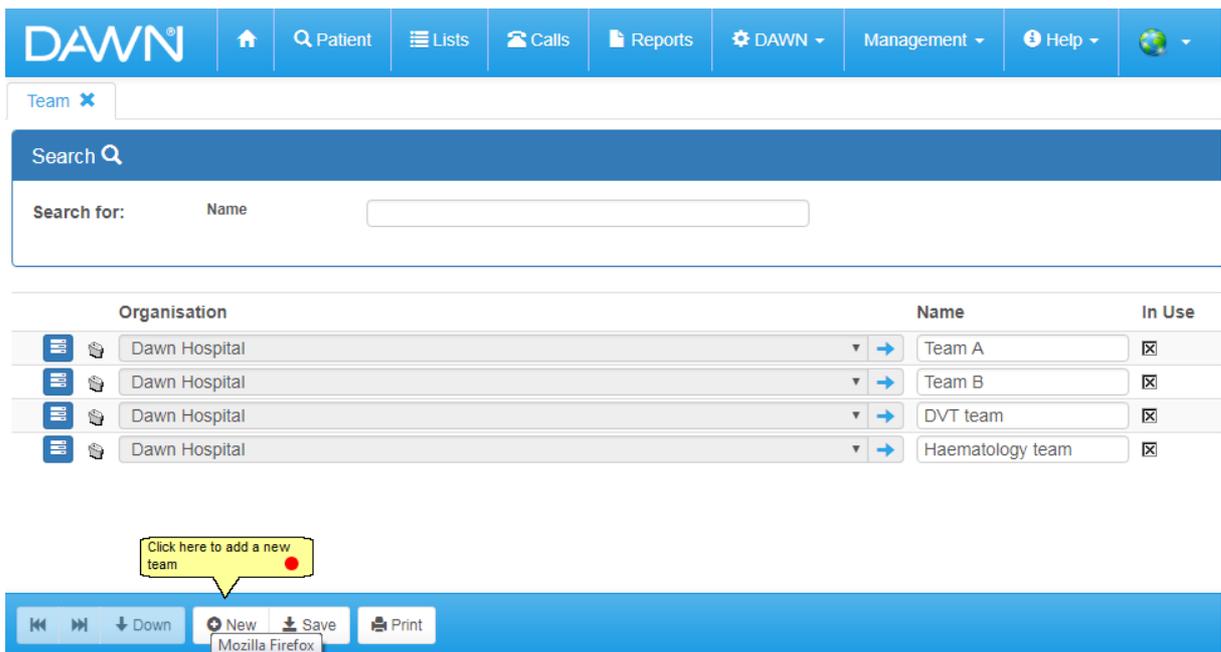
6.11 Adding/Editing Teams

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.



6.11.1 List of teams



6.11.2 Choosing a New Team Organisation

The screenshot shows the DAWN software interface. At the top, there is a blue navigation bar with the DAWN logo and several menu items: Home, Patient, Lists, Calls, Reports, and Help. Below the navigation bar, there is a search bar and a dropdown menu for 'Team'. The main content area displays the text 'Please select a Organisation for the table Team' above a search input field. Below the search field is a list of organizations, including '(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', and '26 DALEACRE'. A red dot is visible next to the last item in the list. At the bottom of the dialog, there are 'OK' and 'Cancel' buttons. Two yellow callout boxes provide additional information: one says 'You can pick an organisation which this team belongs to.' and the other says 'NOTE - although you specify an organisation here, healthcare professionals belonging to another organisation can also be added to this team'. A third callout box points to the red dot and says 'Click here to choose an organisation'.

DAWN®

Home Patient Lists Calls Reports Help

Team

Please select a Organisation for the table 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

USE

CENTRE

Click here to choose an organisation

OK Cancel

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

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

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 Ra

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® Home Patient Lists Calls Reports Brenda 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

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

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

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 (None selected)

Units for Patient Weight (None selected)

Allow Customising of Dose Instructions

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

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

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

Disease area	Clinic
Anticoagulation	Dalton Square Surgery GP (S)

Navigation: 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

- 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
- Risk
- Risk Class
- Severity
- Warn Level

Click here to add/edit risk classes

6.13.1 List of Risk Classes

The screenshot shows the 'Risk Class' management interface in the DAWN system. The interface includes a header with navigation options (Home, Patient, Lists, Calls, Management) and a search bar. Below the header is a table listing various risk classes. Callouts provide instructions on how to manage these classes, such as deleting records, adding new ones, and configuring their display options.

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"/>

Callouts in the image include:

- Click on the bin icon and then save to delete this record
- The risk class is set to order the risk classes - these
- Colour coding can be set for each risk class. eg, high risk can be displayed in red
- Click here to add a new risk class
- Uncheck this box to remove the risk class from the available options
- Check this box to include patients with this risk class in priority groupings in list views and reports

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 fill out these fields and what the checkboxes do.

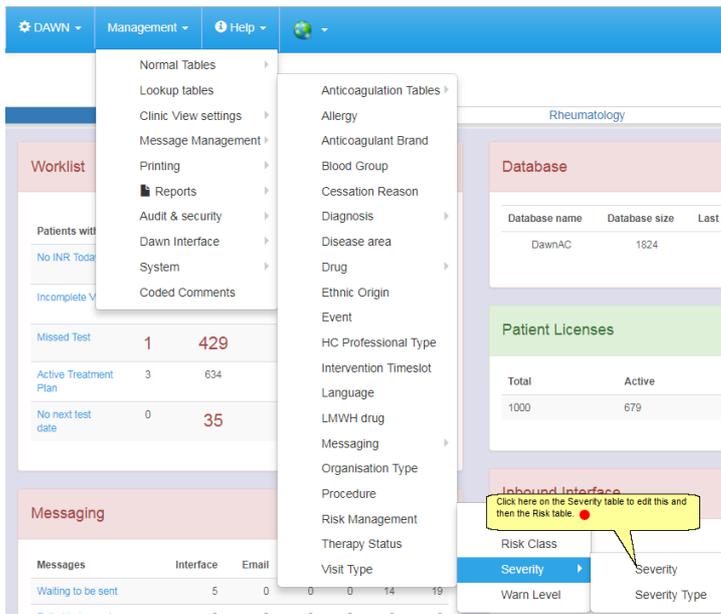
Callouts in the image include:

- Enter a description for the new risk class
- Enter a risk level for the new risk class
- Check this box to include patients with this risk class in priority groupings in list views and reports
- Add a colour (optional)
- Click here to save the new risk class and return to the list

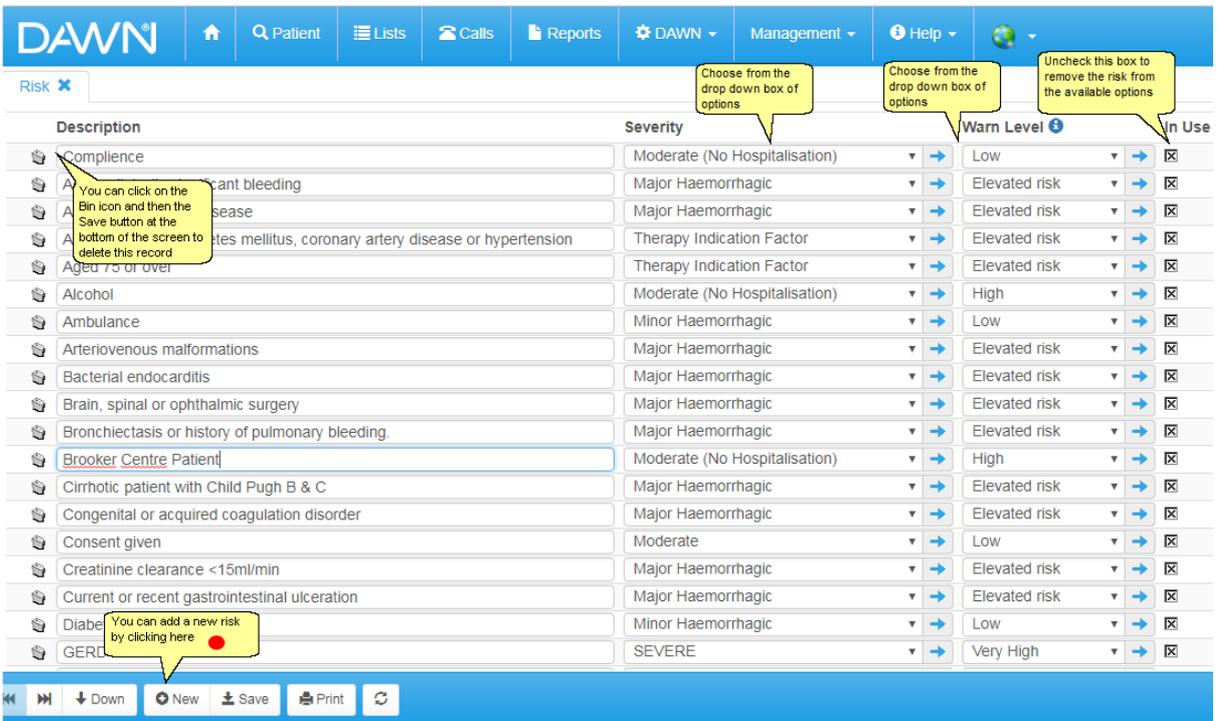
6.14 Adding/Editing Severities

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

Severity ✕

Please select a SeverityType for the table Severity

Risk
Drug
Allergy
Event

Double click to set the severity type

Severity ✕

Description

Order 100

In Use

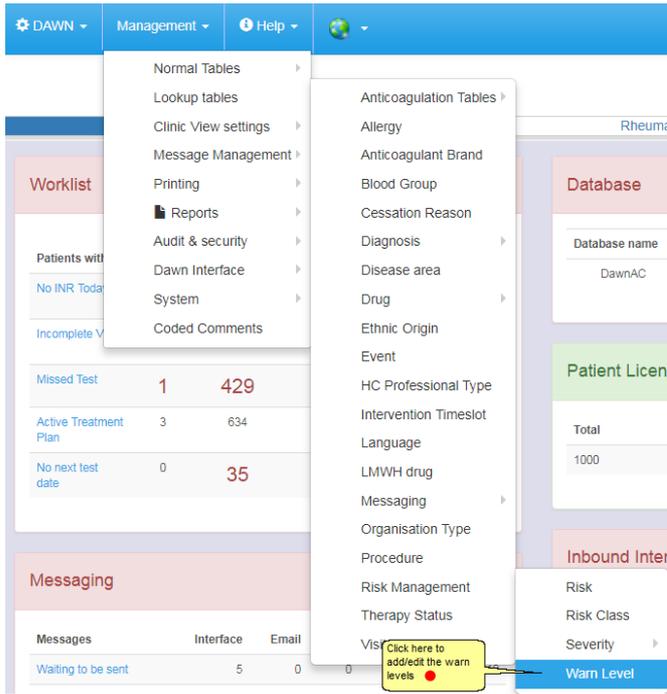
Enter a description and order number

Click OK to save and return to a list of severities

OK Cancel

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

Search for: WarnGroup Name
 Warning Image

Drugs

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

Events

Name	Warn Level	Warning Image	Always Warn	In Use
Normal	<input type="text" value="1"/>	<input type="text"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor	<input type="text" value="2"/>	<input type="text"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Major	<input type="text" value="3"/>	<input type="text"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Always warn	<input type="text" value="10"/>	<input type="text" value="IMAGES/EXCLAM/"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Procedures

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

Risks

Navigation:

Callouts:

- "These existing warn level fields are editable" (points to Warn Level input fields)
- "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." (points to Bin icons)
- "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" (points to Drugs section)
- "Click here to add a new Warn Level" (points to New button)

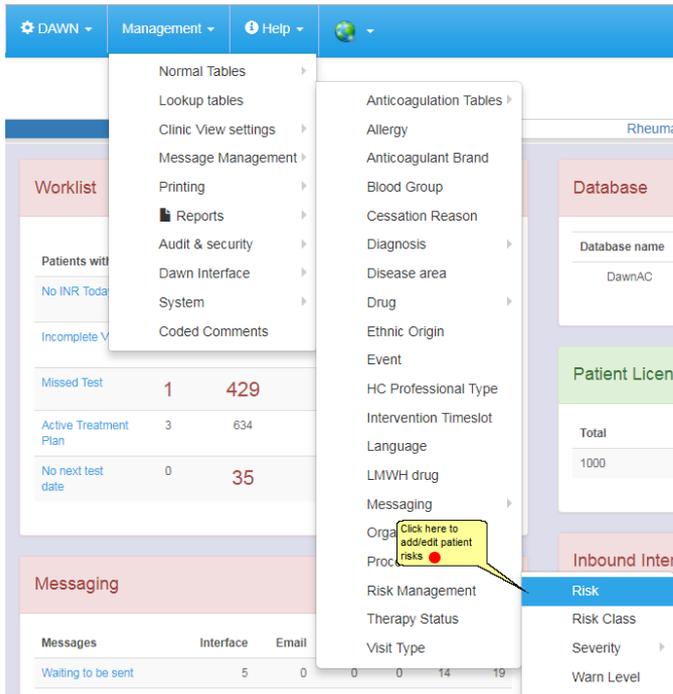
6.15.2 Adding a New WarnLevel

The screenshot shows the 'Warn Level' configuration form in the DAWN system. The form includes the following fields and options:

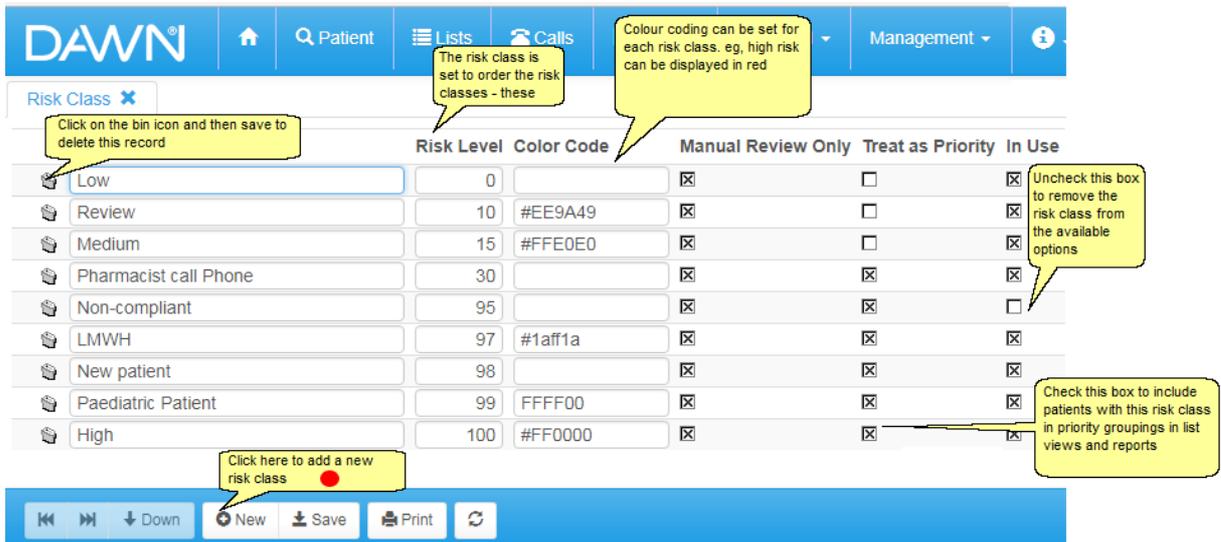
- WarnGroup:** A dropdown menu currently showing '(Make a choice)'. A callout box states: 'A Warn group must be chosen for the Warn Level. This determines what the warn level will be used against, eg, drugs, events, etc.'
- Name:** An empty text input field. A callout box states: 'A warn level name needs to be added, and also a warn level number. This will determine in which order the levels appear in a list within the system.'
- Warn Level:** An empty text input field.
- Warning Image:** An empty text input field. A callout box states: 'A warning image can optionally be added here. This image will appear beside the warn level when chosen.'
- Always Warn:** A checkbox that is currently unchecked. A callout box states: '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:** A checkbox that is currently checked. A callout box states: 'The InUse box must be checked in order to use this warn level.'

At the bottom of the form, there is a message: 'You will need to save this new record before you can...'. Below this message are two buttons: 'OK' (with a checkmark icon) and 'Cancel' (with an 'X' icon). A callout box points to the OK button, stating: 'Click here on the OK button to save this record and return to the list of warn levels.'

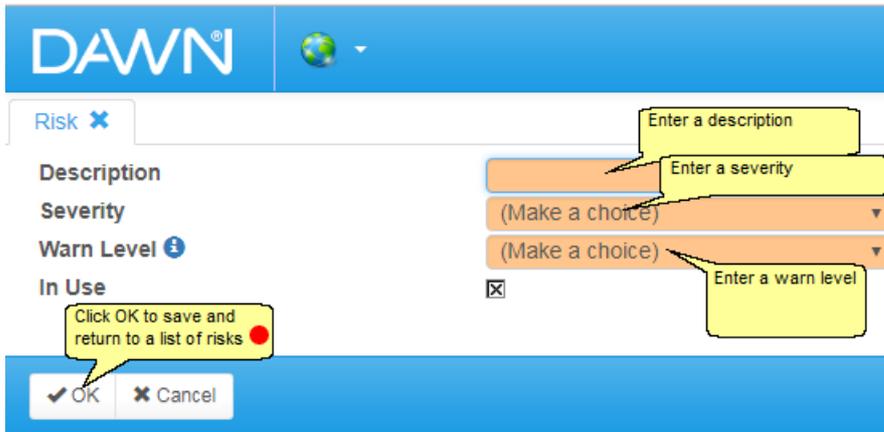
6.16 Adding/Editing Risk Settings



6.16.1 List of Risks

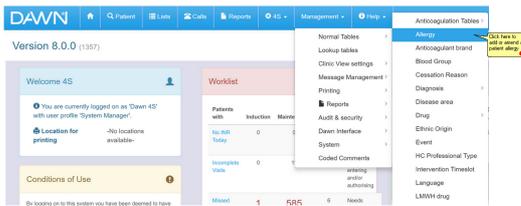


6.16.2 Adding a New Risk Setting



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

The screenshot displays the DAWN software interface for managing patient allergies. The top navigation bar includes the DAWN logo and buttons for Home, Patient search, Lists, Calls, and Reports. Below this is a filter bar for 'Allergy' with a close button. The main content area is titled 'Description' and contains a list of allergies: Hay Fever, Peanuts, Penicillin, and Sticking plasters. Each item has a bin icon to its left. A 'New' button with a red dot is located at the bottom of the list. The bottom navigation bar contains buttons for navigation (back, forward, down), 'New', 'Save', and 'Print'.

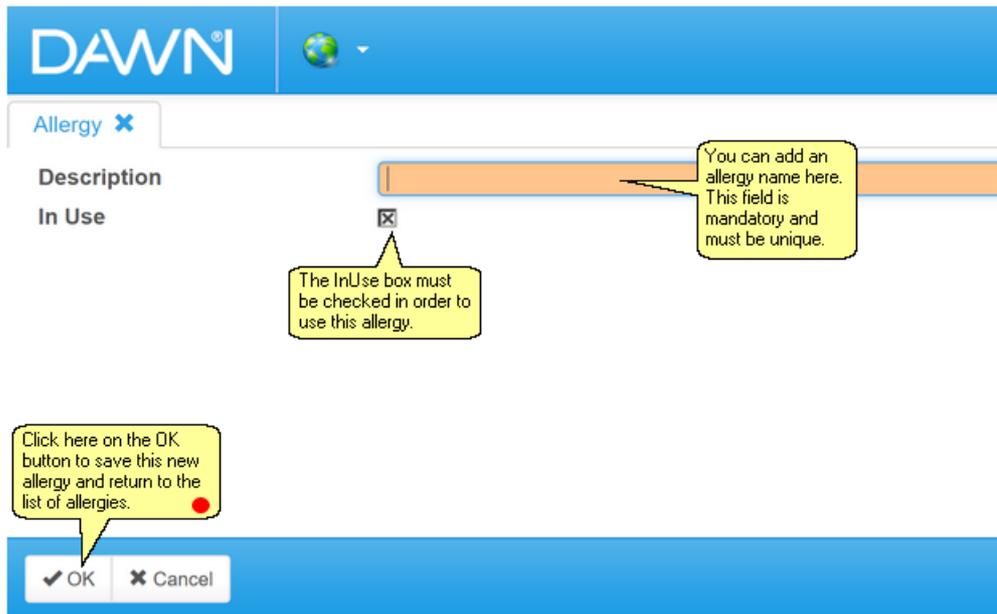
Callout 1: You can delete an allergy from the list by clicking on the Bin icon to the left of the field.

Callout 2: Click here on the New button at the bottom of the screen to add a new allergy.

Callout 3: These fields are editable, and so you can change the wording of an allergy here.

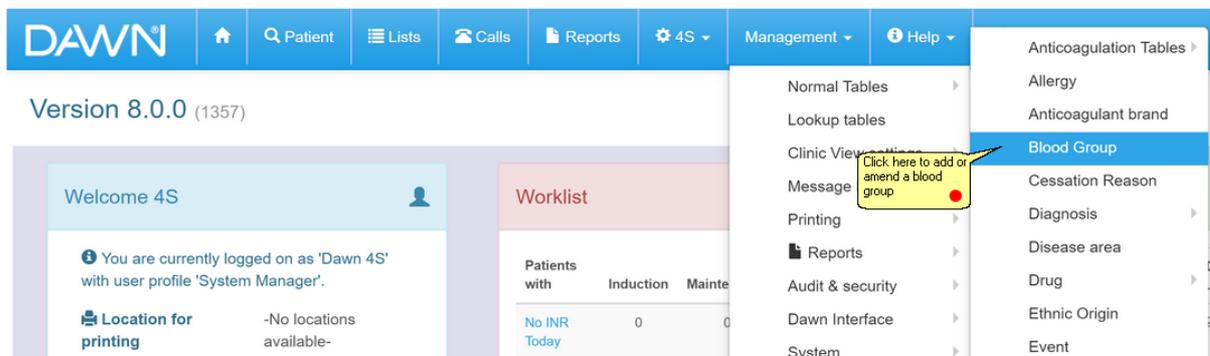
Callout 4: A list of existing allergies appears here.

6.17.2 Adding a New Patient Allergy



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.



6.18.1 List of Blood Groups

DAWN Home Patient Lists Calls Reports 4S Management

Blood Group ✕

Description

	A Positive
	O Positive

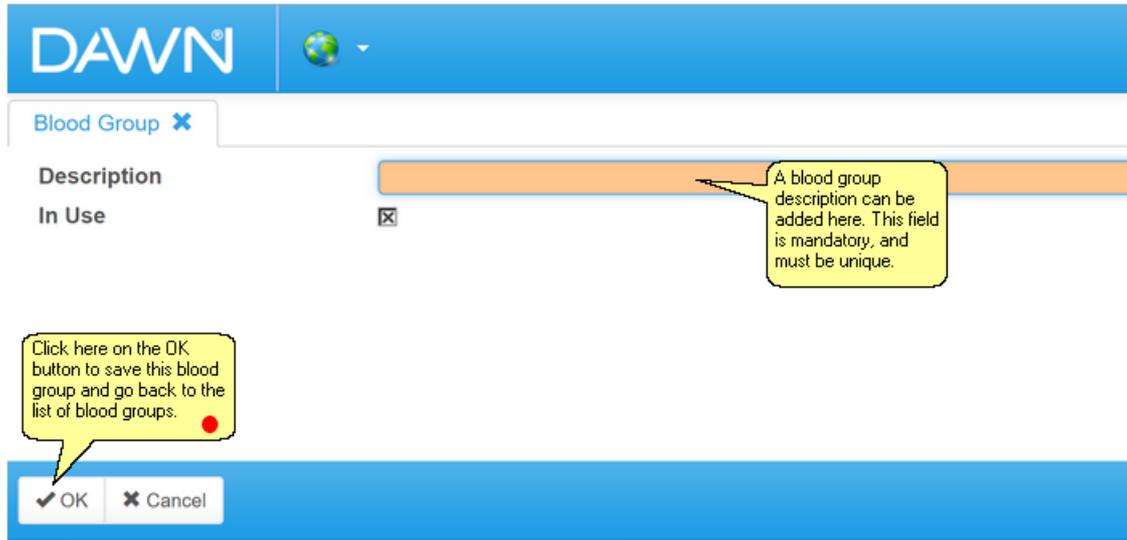
You can delete a blood group by clicking on the Bin icon to the left of the record.

A list of existing blood groups appears here. These fields are editable.

Click here on the New button to add a new blood group.

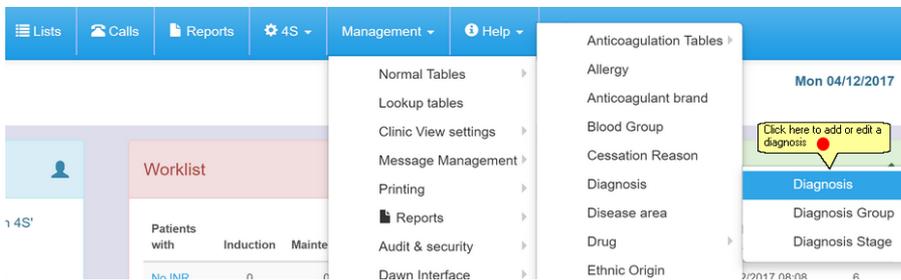
Navigation: ⏪ ⏩ ↓ Down New Save Print

6.18.2 Adding a Blood Group



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)	Add a new record Diagnosis Stage	<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 & CARIOVERSION		<input checked="" type="checkbox"/>	Atrial Fibrillation	Add a new record Diagnosis Stage	<input type="checkbox"/> Anticoagulation

Navigation: Back, Forward, Down, New, Save, Print | 1-20 / 104

Callouts:
 - "A list of existing diagnoses appear here. These fields are editable."
 - "To delete a diagnosis, you can click on the Bin icon to the left of this field (please note - if the diagnosis is logged against a patient, then it cannot be deleted)"
 - "Click here on the New Button to add a new diagnosis"

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

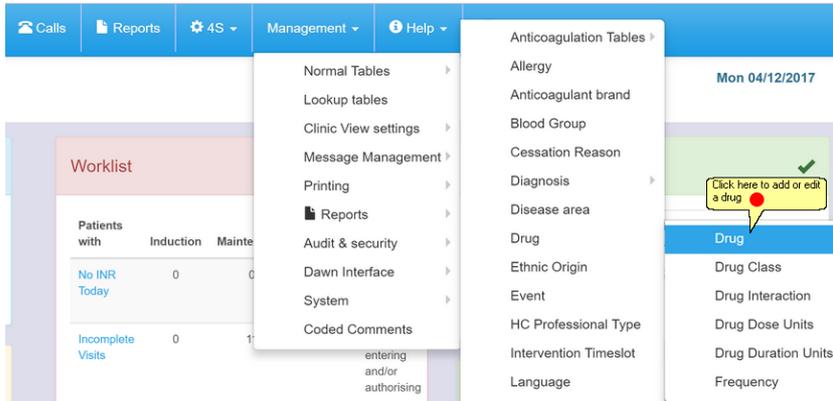
Relevant for

Buttons: OK, Cancel

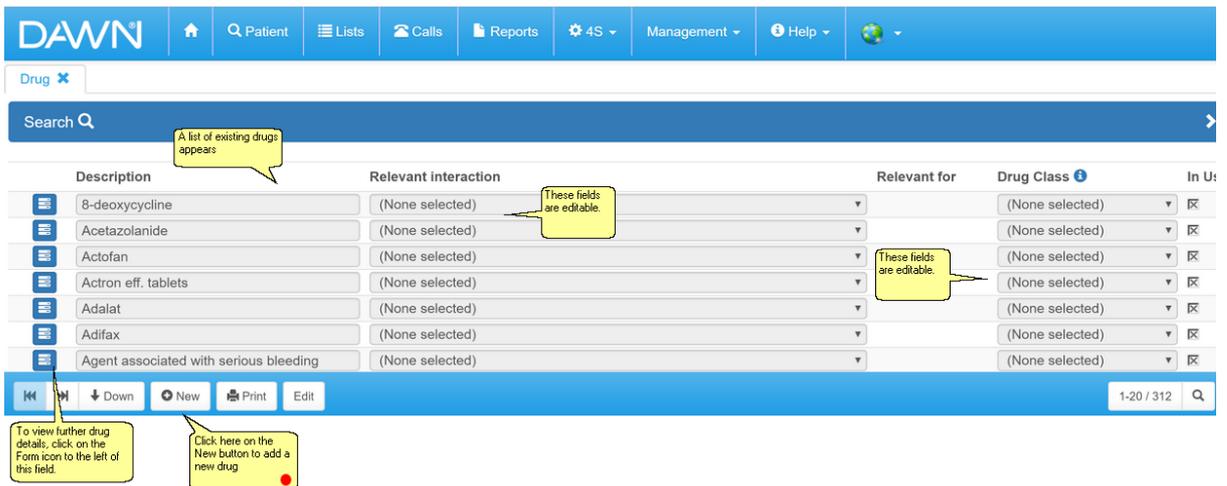
Callouts:
 - "You can add a diagnosis name here. This field is mandatory, and must be unique."
 - "A code name can be optionally entered for this diagnosis"
 - "The InUse box must be checked in order to use this diagnosis"
 - "A diagnosis group can be chosen from the drop down list. The diagnosis groups themselves can be created elsewhere within the system."
 - "Once the new record has been saved, you can optionally add diagnosis stages into this box, eg, advanced, early, etc."
 - "Click here on the OK button to save this record and return to the list of diagnoses."

6.20 Adding/Editing Drugs

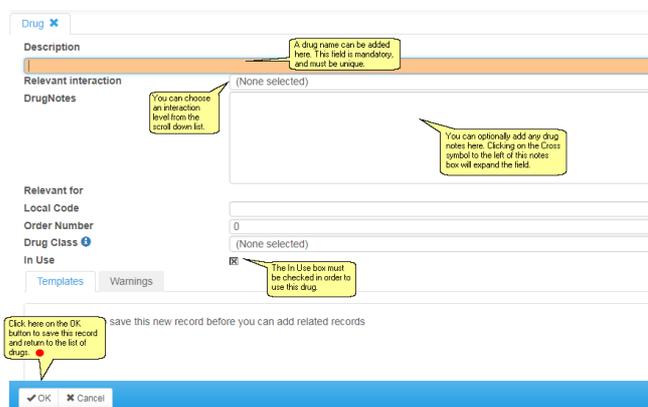
If you need to add a drug that does not exist in the standard list, new drugs can be added here.



6.20.1 List of Drugs



6.20.2 Adding a New Drug



6.20.3 Marking a drug as interacting

The screenshot shows the DAWN software interface for configuring a drug's warning settings. The main form is titled 'Drug' and 'Warn Level'. The drug is 'Amiodarone'. The 'Relevant interaction' is set to 'Significant enhanced anticoagulation effect: Significant'. The 'DrugNotes' field contains '<<Enhanced anticoagulation effect>>'. The 'Relevant for' section has checkboxes for 'Anticoagulation' (checked), 'DVT Assessment', 'Haematology', 'NOAC', 'Rheumatology', and 'Rivaroxaban'. The 'Local Code' is empty, 'Order Number' is 0, and 'Drug Class' is '(None selected)'. The 'In Use' checkbox is checked. The 'Warn Level' is set to 'Normal' and 'WarningDuration' is 28. The bottom navigation bar includes buttons for 'New', 'Delete', 'Save', 'List', and 'Print', along with a page indicator '11 / 312'.

Callout boxes provide the following instructions:

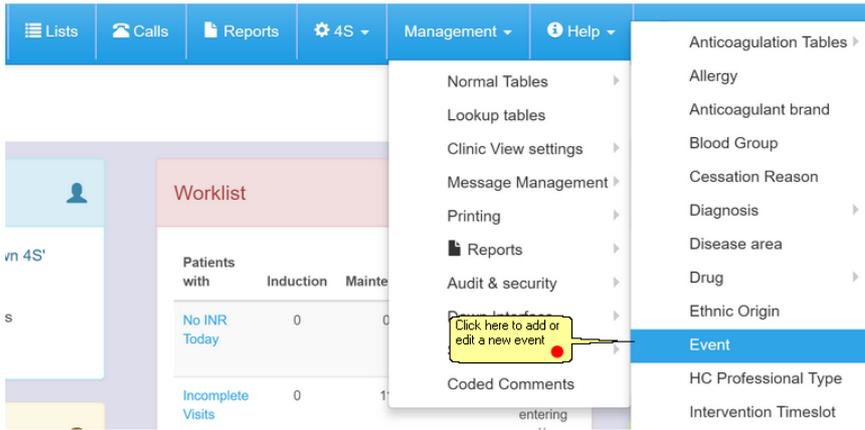
- Select the interaction for a pre-defined list of interactions**: Points to the 'Relevant interaction' dropdown menu.
- Edit the drug notes**: Points to the 'DrugNotes' text area.
- Select the disease area/s**: Points to the 'Relevant for' checkboxes.
- Select the default warning level. Select always warn if appropriate for the drug**: Points to the 'Warn Level' dropdown menu.
- 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**: Points to the 'WarningDuration' input field.
- Click here on the OK button to save this record and return to the list of drugs.**: Points to the 'Save' button in the bottom navigation bar.

6.21 Adding/Editing Events

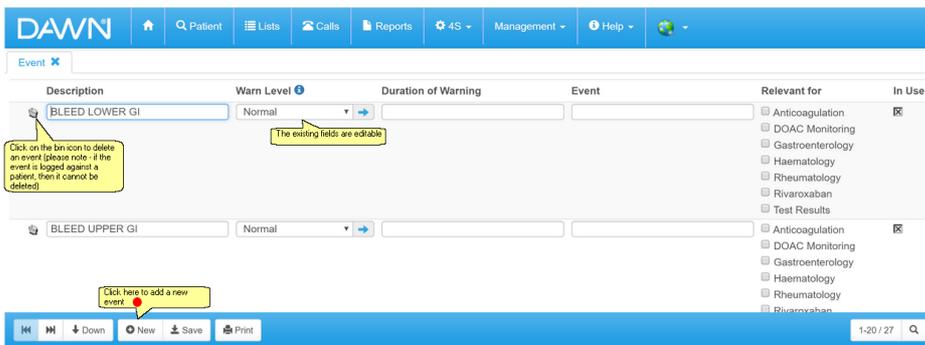
There are 2 steps involved in configuring the Events settings:

- Set Severity for Event
- Set the event

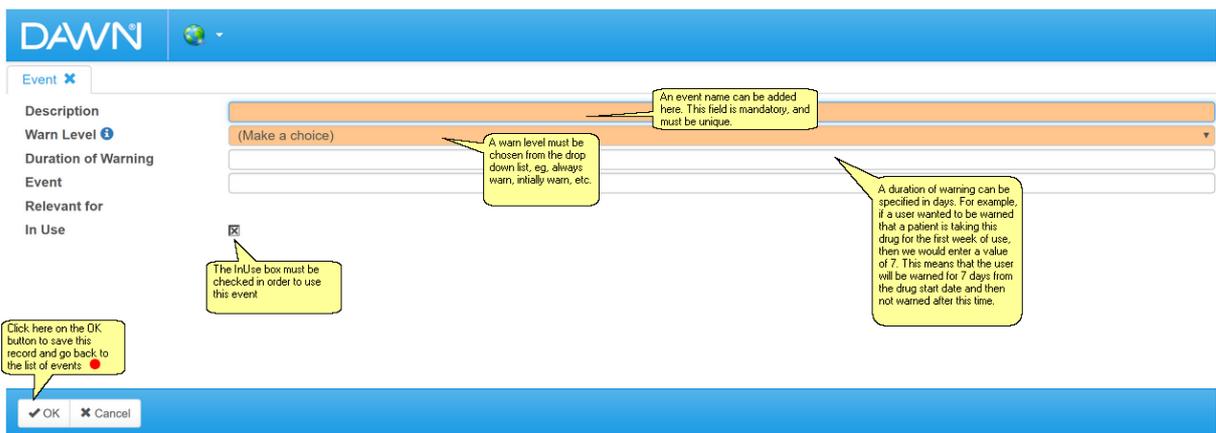
If you need to add an event that does not exist in the standard list, new events can be added here.



6.21.1 List of Events



6.21.2 Adding a New Event



6.22 Adding/Editing Procedures

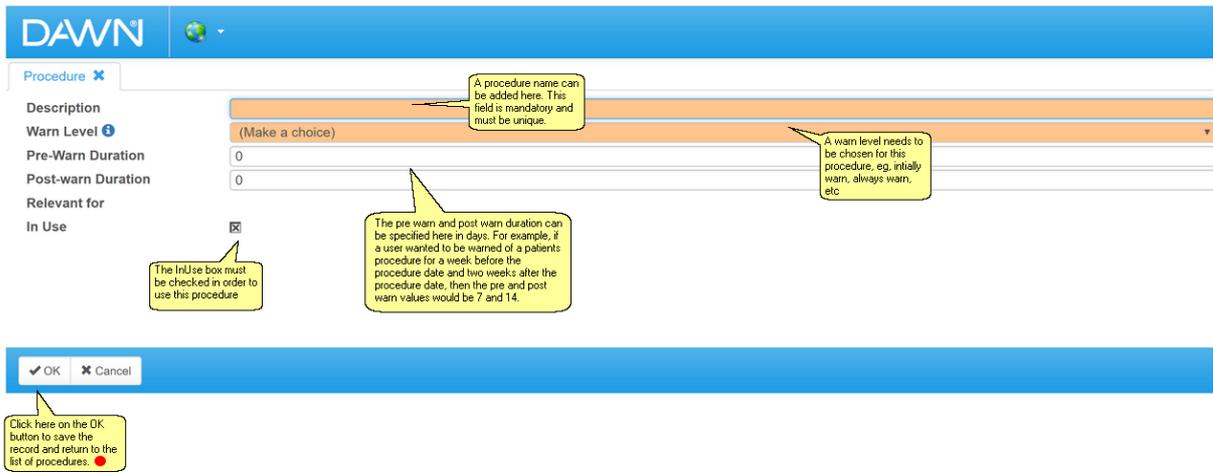
If you need to add a procedure that does not exist in the standard list, new procedures can be added here.

The screenshot shows the DAWN system interface. The top navigation bar includes 'Patient', 'Lists', 'Calls', 'Reports', '4S', 'Management', and 'Help'. The 'Management' dropdown menu is open, showing options like 'Normal Tables', 'Lookup tables', 'Clinic View settings', 'Message Management', 'Printing', 'Reports', 'Audit & security', 'Dawn Interface', 'System', and 'Coded Comments'. The 'Procedure' option is highlighted at the bottom of the menu. A callout bubble points to this option with the text: 'Click here to add or edit a procedure'. The main content area shows a 'Worklist' table with columns for 'Patients with', 'Induction', and 'Maintenance'. The table includes rows for 'No INR Today', 'Incomplete Visits', 'Missed Test', and 'Active Treatment Plan'. A 'Welcome 4S' message and 'Conditions of Use' section are also visible.

6.22.1 List of Procedures

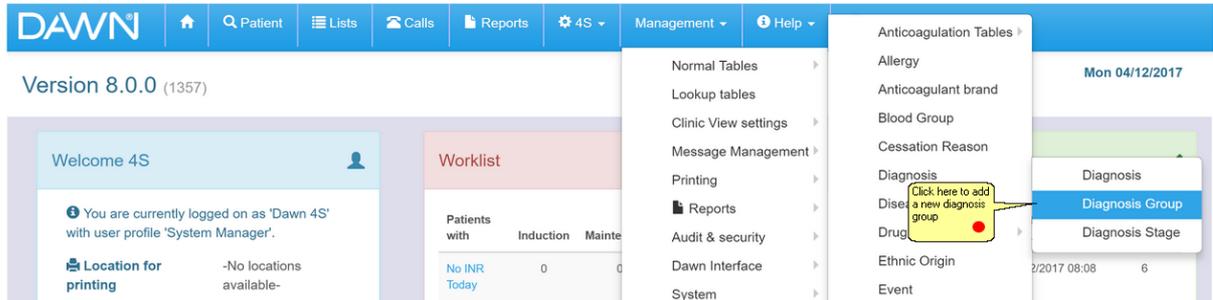
The screenshot displays the 'List of Procedures' interface. The top navigation bar is the same as in the previous screenshot. The main content area shows a table with the following columns: 'Description', 'Warn Level', 'Pre-warn Duration', and 'Post-warn Duration'. There are two rows of procedure data: 'Blood results checked' and 'Blood test'. A callout bubble points to the 'Blood results checked' row with the text: 'A list of existing procedures appear in a list. These fields are editable.' Another callout bubble points to the 'Bin' icon (trash can) to the left of the 'Blood results checked' row with the text: '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)'. At the bottom of the interface, there is a blue bar with buttons for 'New', 'Save', and 'Print'. A callout bubble points to the 'New' button with the text: 'Click here on the New button to add a new procedure'.

6.22.2 Adding a New Procedure



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.



6.23.1 List of Diagnosis Groups

DAWN®

Home Patient Lists Calls Reports 4S Management Help

Diagnosis Group

Search

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

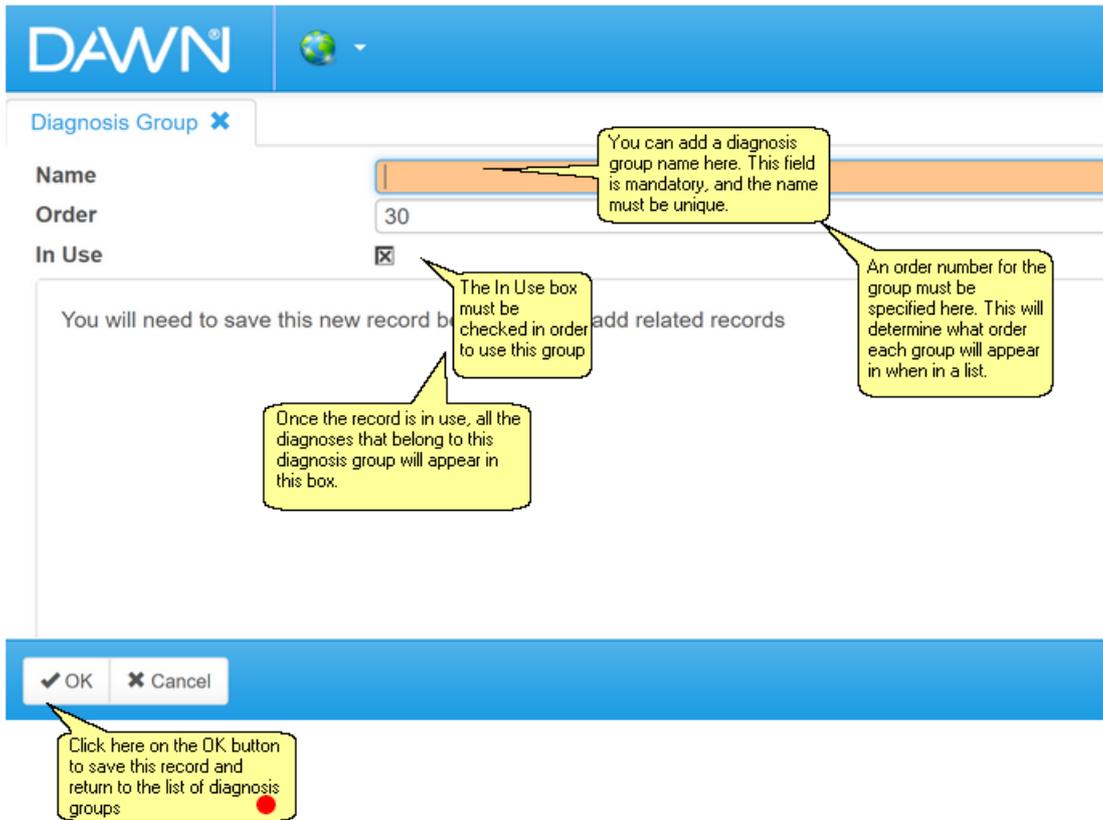
Name	Order
VTE	10
Atrial Fibrillation	20
Surgical	20

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

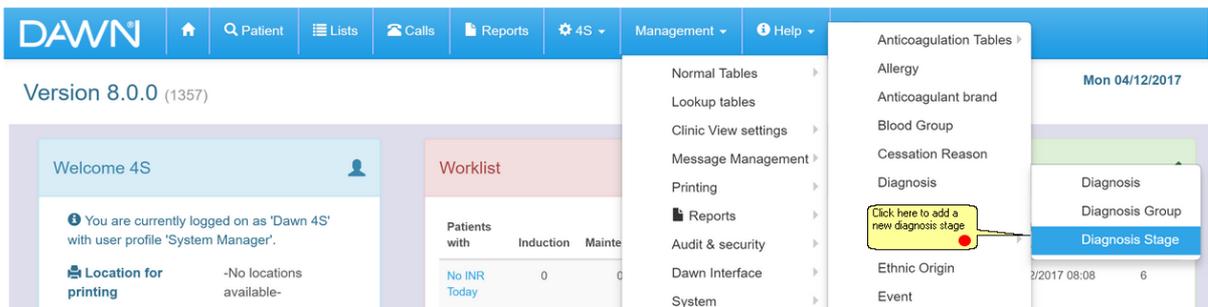
Click here on the New button to add a new diagnosis group

6.23.2 Adding a New Diagnosis Group



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.



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

Navigation: ⏪ ⏩ ↓ Down New Save Print

Callout 1: A list of existing stages will appear here. These fields are editable.

Callout 2: 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)

Callout 3: Click here on the New button to add a new diagnosis stage

6.24.2 Adding a New Diagnosis Stage

DAWN®

Diagnosis Stage ✕

Diagnosis - AORTIC VALVE DISEASE

Name

Order 10

In Use

✓ OK ✕ Cancel

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

A diagnosis stage name can be added here. This field is mandatory.

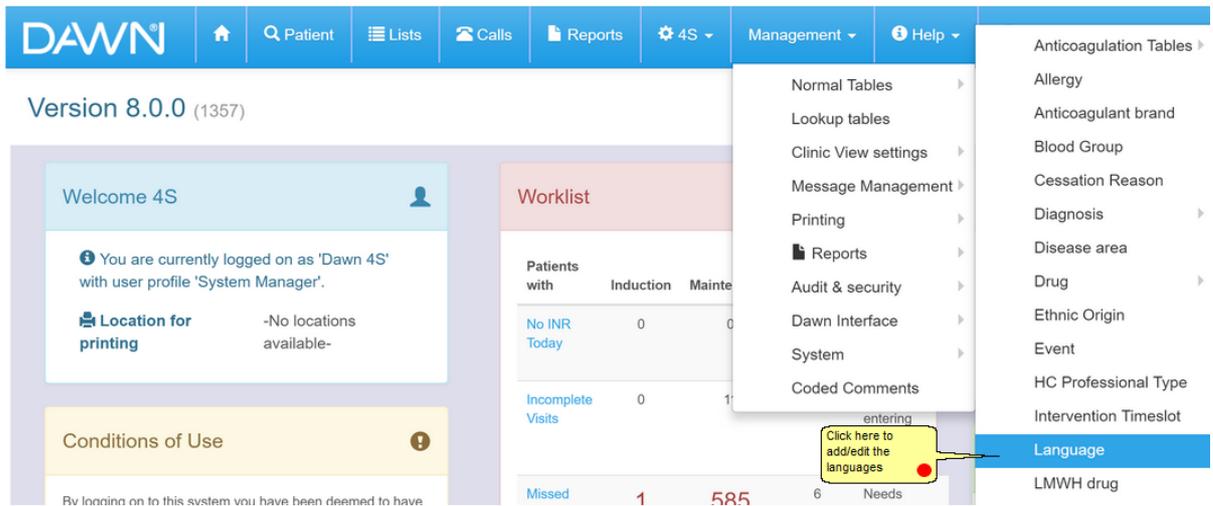
A diagnosis must be chosen for the stage from the drop down list

An order number must be specified for the diagnosis stage. This determines what order each diagnosis stage will appear in a list.

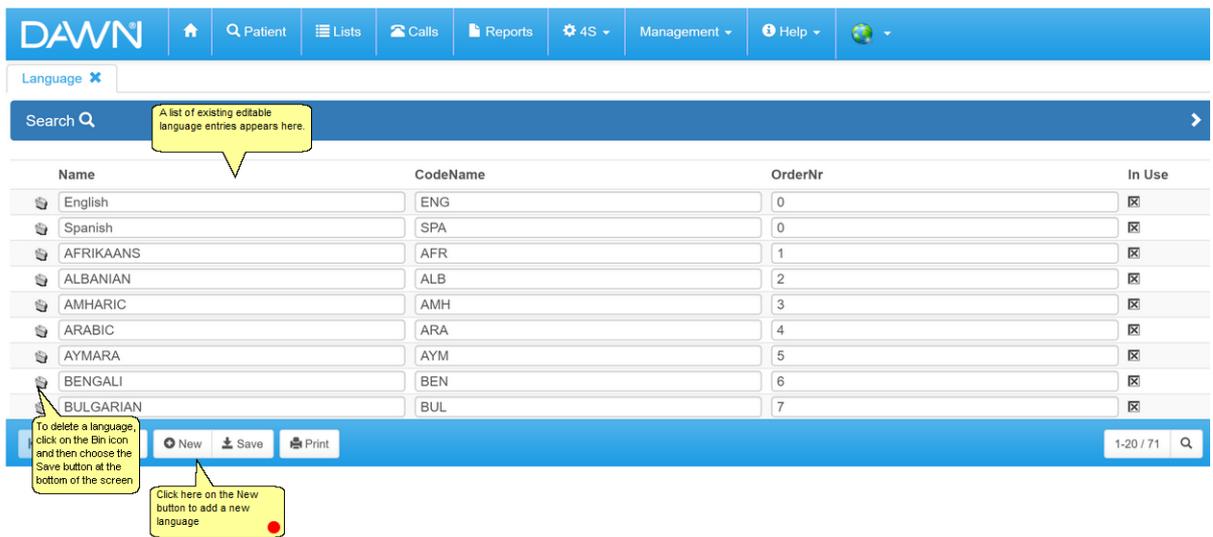
Click here on the OK button to save this record and return to the list of diagnosis stages.

6.25 Adding/Editing Languages

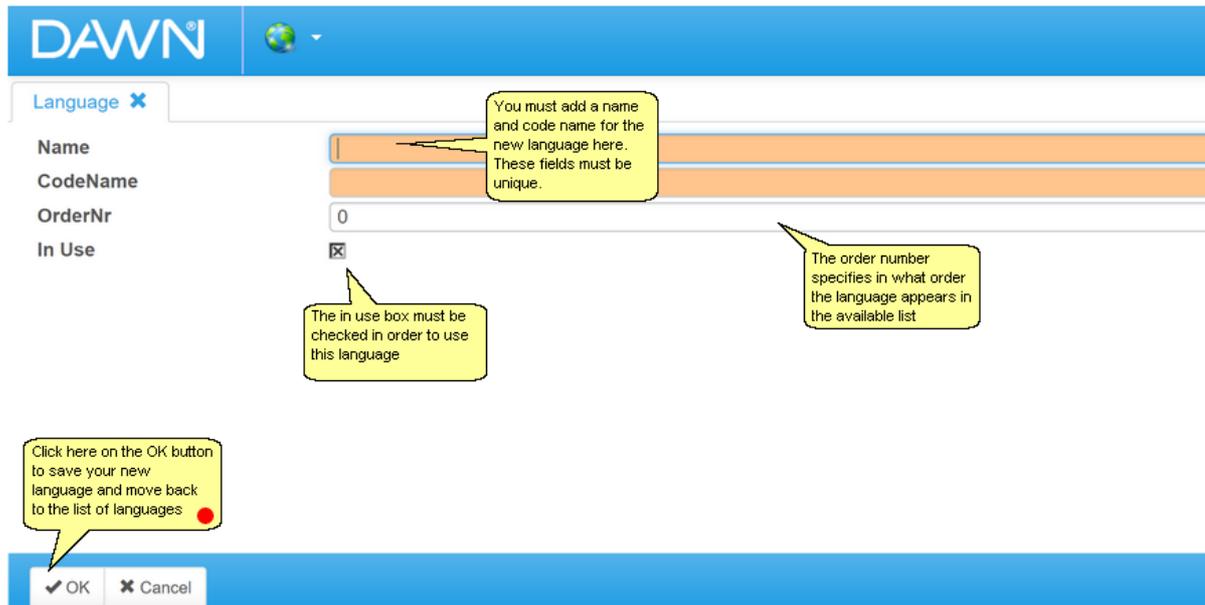
If you need to add a language that does not exist in the standard list, new languages can be added here.



6.25.1 List of Languages

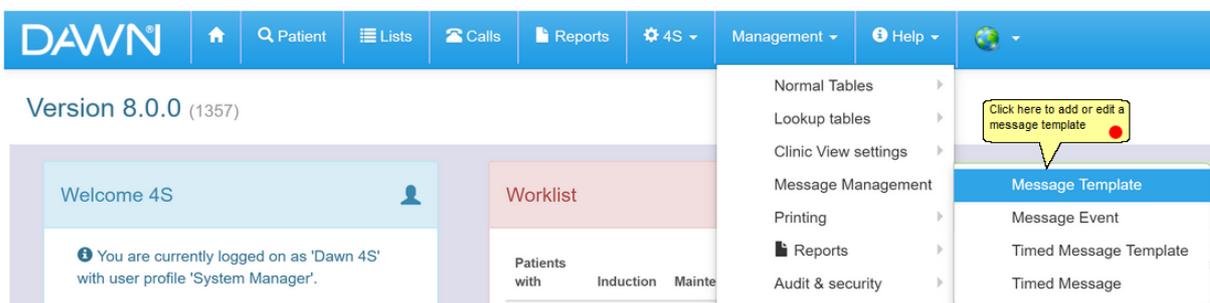


6.25.2 Adding a New Language



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.



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.

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"/>

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

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.

You can add the message template text here. PLEASE NOTE - The letter itself needs to be in HTML format. To pull patient data into the letter, we use data items, such as (PatientDOB). For a full list of available data items, please contact the DAWN support team.

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.

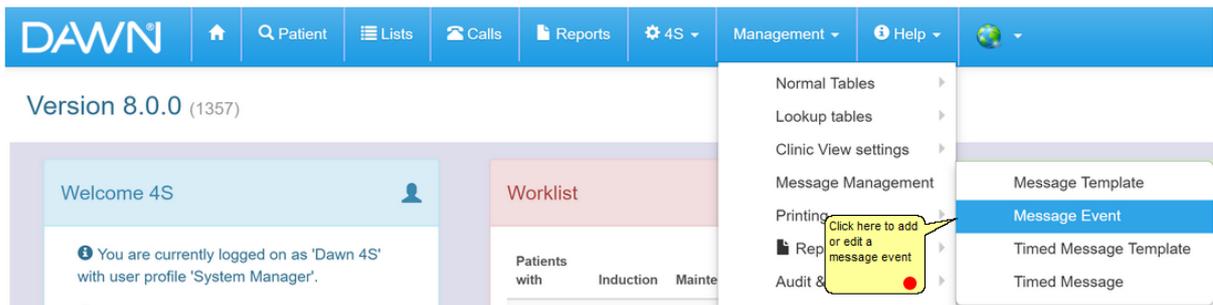
You can choose a paper type for this message template. This may affect which printer the message is printed to.

Using these tabs, you can preview the message template, and specify whether it is used in any message events.

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

	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
	recent history	ClinicView	Treatment Plan and Recent History Report	<input checked="" type="checkbox"/>	0
	DNA	ClinicView	INTOUTNONOTES	<input checked="" type="checkbox"/>	30
	DNA Discharge	Treatment_OnPatientDidNotAttend	Non Attendance Letter (cc GP #3) [DM]	<input checked="" type="checkbox"/>	40
	INTOUT	TreatmentPlan_OnPatientIsNonAttending	Discharge for Non Attendance Notice (to GP) [DM]	<input type="checkbox"/>	50
	Call Patient with dose	Patient_ManualMessage	INTOUTNONOTES	<input checked="" type="checkbox"/>	60
	PAS Update - inactivate	Patient_ManualMessage	Dose Letter (Simple)	<input checked="" type="checkbox"/>	180
	PAS update - activate	TreatmentPlan_OnStop	Outbound ADT*A01 or A03 Status Update Message	<input type="checkbox"/>	220
	PAS update - deactivate (on deceased)	TreatmentPlan_OnActivate	Outbound ADT*A01 or A03 Status Update Message	<input type="checkbox"/>	230
		Patient_OnPatientDeceased	Outbound ADT*A01 or A03 Status Update Message	<input type="checkbox"/>	240

Callout boxes in the screenshot provide instructions: '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.', and 'Click here on the New icon to add a new message event'.

Footer:

6.27.2 Adding a New Message Event

DAWN
Message Event ✕

Caption: 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?
 Order No: 0

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.

OK

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.

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 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.

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.

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.

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)	The message is printed, but only if the recipient has "Mail" as their main messaging method, or as one of their additional messaging options. CAUTION: No message is produced for recipients who do not have "Mail" selected as an option for messaging, at all.
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 messaging options.

	<p>CAUTION: 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>CAUTION: 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 not configured to send emails in plain text format (otherwise the tags are</p>

	<p>rendered as part of the text, e.g, IMPORTANT test result instead of IMPORTANT test result.</p> <p>CAUTION: 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>CAUTION: 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>CAUTION: 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.

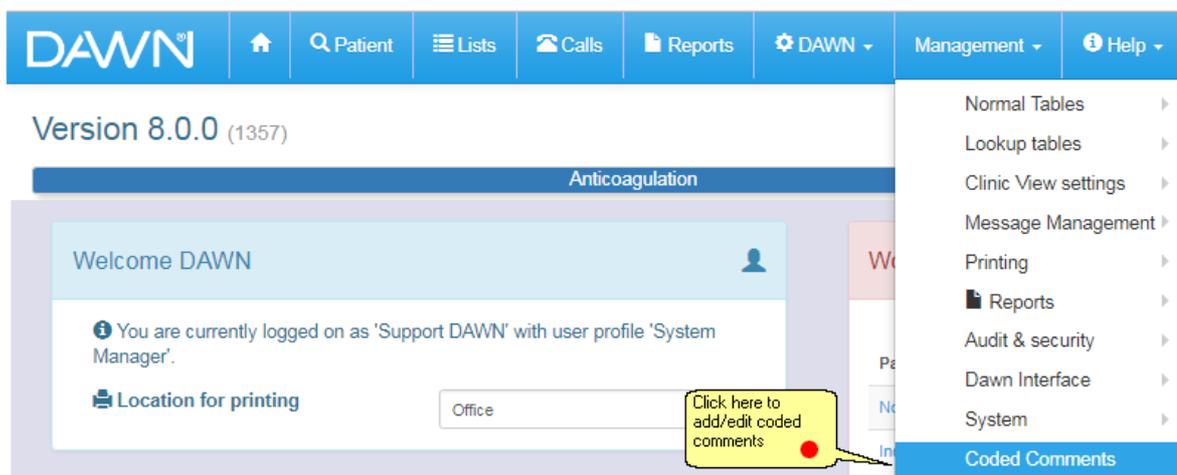
In this type of scenario, you should **NOT** check the checkbox. The original message is still valid and the logic in the template ensures that a duplicate message is not created. With the checkbox unchecked, everything works as it should. Checking the checkbox could result in the patient getting no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

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

ere.

6.28.2 New coded comment form

DAWN®

Coded Comments ✕

ShortCode nnm

FullComment No new medications started

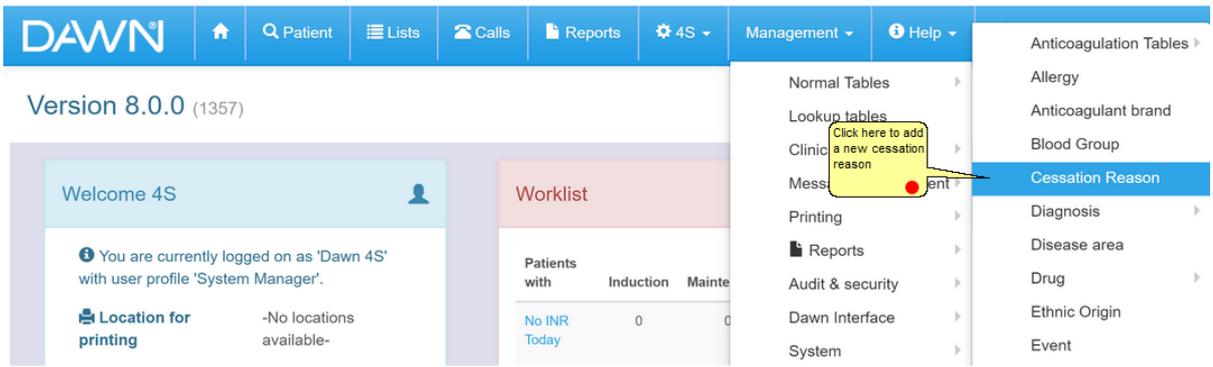
Click OK to save the coded comment

✓ OK ✕ Cancel

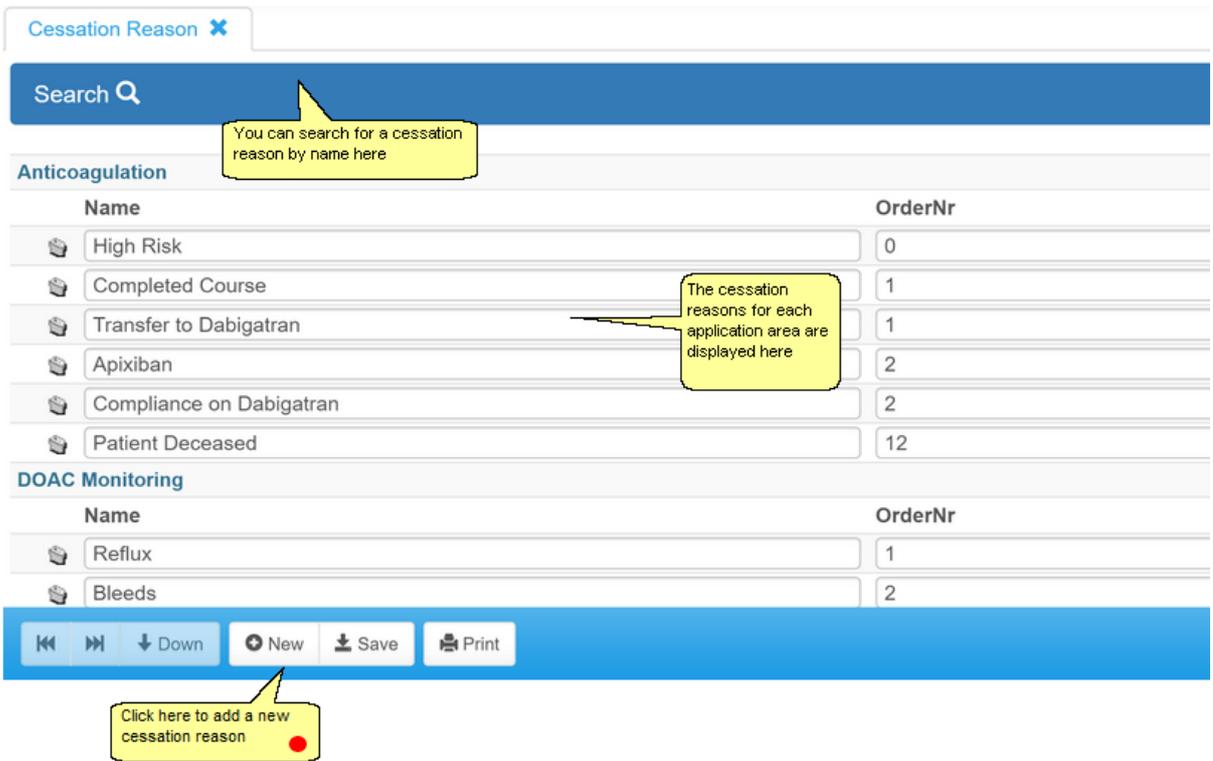
6.29 Adding/Editing Cessation Reason

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

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 'Cessation Reason' form in the DAWN system. The form is titled 'Cessation Reason' and includes a dropdown menu for 'Disease area' set to 'Anticoagulation'. Below this are three input fields: 'Name', 'OrderNr', and 'In Use'. The 'Name' field is highlighted with a callout: 'You need to add a name for this reason here'. The 'OrderNr' field is highlighted with 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 is a checkbox, which is checked, and has a callout: 'The in use box must be checked to use this reason'. At the bottom of the form are 'OK' and 'Cancel' buttons. A callout points to the 'OK' button: 'You can click on here to save the reason'.

DAWN® 

Cessation Reason ✕

Disease area Anticoagulation ▼

Name

OrderNr

In Use

OK Cancel

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

You can click on here to save the reason

6.30 Adding/Editing International Settings

The screenshot shows the DAWN system interface. The top navigation bar includes 'DAWN', 'Patient', 'Lists', 'Calls', 'Reports', 'DAWN', 'Management', and 'Help'. The 'Management' menu is open, showing options like 'Normal Tables', 'Lookup tables', 'Clinic View settings', 'Message Management', 'Printing', 'Reports', 'Audit & security', 'Dawn Interface', 'System', 'Carded Comments', and 'International Settings'. A callout box with a red dot points to the 'International Settings' option. The main content area shows a 'Welcome DAWN' message, a 'Location for printing' dropdown set to 'Office', and a 'Conditions of Use' section with a list of 10 warnings and conditions of use. A 'Worklist' table is also visible, showing patient counts for various categories.

6.30.1 Editing International Settings

The screenshot shows the 'International Settings' configuration screen. The 'Date' section has 'Format' set to 'DD/MM/YYYY' and 'Separator' set to '/'. The 'Time' section has 'Format' set to 'HH:MM' and 'Sample' set to '21:15'. The 'Numbers' section has 'Decimal character' set to '.', 'Thousands character' set to ',', and 'Sample' set to '12,345,678.99'. A callout box with a yellow background and a red dot points to the 'Click here to save the settings' button. The bottom of the screen has 'OK' and 'Cancel' buttons.

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.

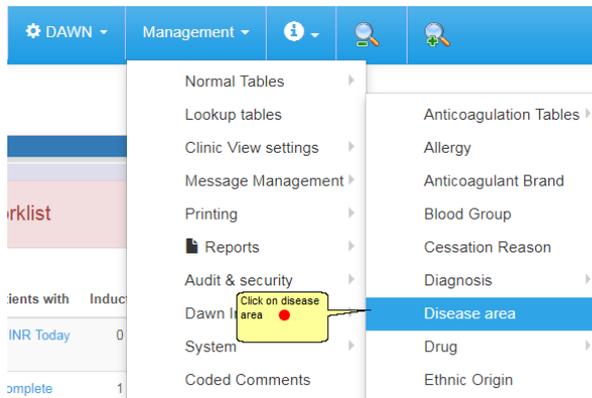


Diagnosis	ATRIAL FIBRILLATION
Target Range	2.0 - 3.0
Start Date	01/10/2016 - Indefinite
Anticoagulant	Warfarin 1mg Strength (in mg/ Daily)
Treatment Plan	< 1 > of 1 active Report
Risks	

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 ⓘ →

Drug Dose Description Caption ⓘ

Click Save to save this option

Select the message you want to see from the Report button

⏪ < > ⏩ Save List Print ↻

6.32 Adding/Editing Reports

Brenda Management ⓘ 🔍 🔍

- Normal Tables ▶
- Lookup tables ▶
- Clinic View settings ▶
- Message Management ▶
- Printing ▶
- 📄 Reports
 - Parameter
 - Report**
- Down Interface ▶
- System ▶
- Coded Comments

Click here to add/edit a report

Worklist

Patients with

No INR Today

Incomplete V

0 Awaiting result / yet t attend

1 Dose needs entering

6.32.1 List of reports

Report ✕

Search ➤

Search for: Name Search

	Name	In Use	Order Nr
	% DNA by Clinic	☒	<input style="width: 40px;" type="text" value="0"/>
	% DNA in date range	☒	<input style="width: 40px;" type="text" value="0"/>
	% INR +/- 0.2 Target Range (InRange flag)	☒	<input style="width: 40px;" type="text" value="0"/>
	% INRs in above and below range	☒	<input style="width: 40px;" type="text" value="0"/>
	% INRs in range	☒	<input style="width: 40px;" type="text" value="0"/>
	% INRs in Range and within 0.2 of Limit Report	☒	<input style="width: 40px;" type="text" value="0"/>
	% INRs Report (Excluding First 3 Months)	☒	<input style="width: 40px;" type="text" value="0"/>
	% INRs within 0.5 and 0.75 of Target Click a report to edit it	☒	<input style="width: 40px;" type="text" value="0"/>
	% INRs within limits on first five visits	☒	<input style="width: 40px;" type="text" value="0"/>
	% INRs within/not in 0.5 and 0.75 of Target	☒	<input style="width: 40px;" type="text" value="0"/>
	% Manual overrides and %TIR by clinic	☒	<input style="width: 40px;" type="text" value="0"/>
	% Manual overrides by user	☒	<input style="width: 40px;" type="text" value="0"/>
	% Manual overrides by user and clinic & <>Inrange	☒	<input style="width: 40px;" type="text" value="0"/>
	% Non Attendances Report	☒	<input style="width: 40px;" type="text" value="0"/>
	% of INRs between values	☒	<input style="width: 40px;" type="text" value="0"/>
	% Stats % TIR per user	☒	<input style="width: 40px;" type="text" value="0"/>
	% Time b/w	☒	<input style="width: 40px;" type="text" value="0"/>
	% Time in Range Bands Report	☒	<input style="width: 40px;" type="text" value="0"/>
	% Time in range by clinic (trt records 22+ weeks)	☒	<input style="width: 40px;" type="text" value="0"/>
	% Time in Click to add a new report osis	☒	<input style="width: 40px;" type="text" value="0"/>

⏪
⏩
↓ Down
➕ New
↓ Save
🖨 Print
🔄

6.32.2 New report form

Report ✕

Name ⓘ 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.

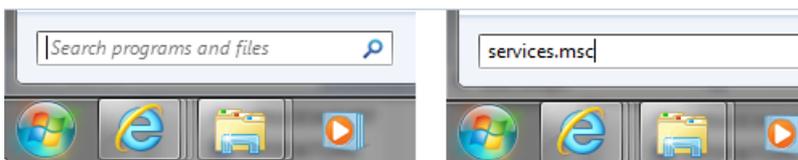
NEXT

6.33.1 Timed Message Service

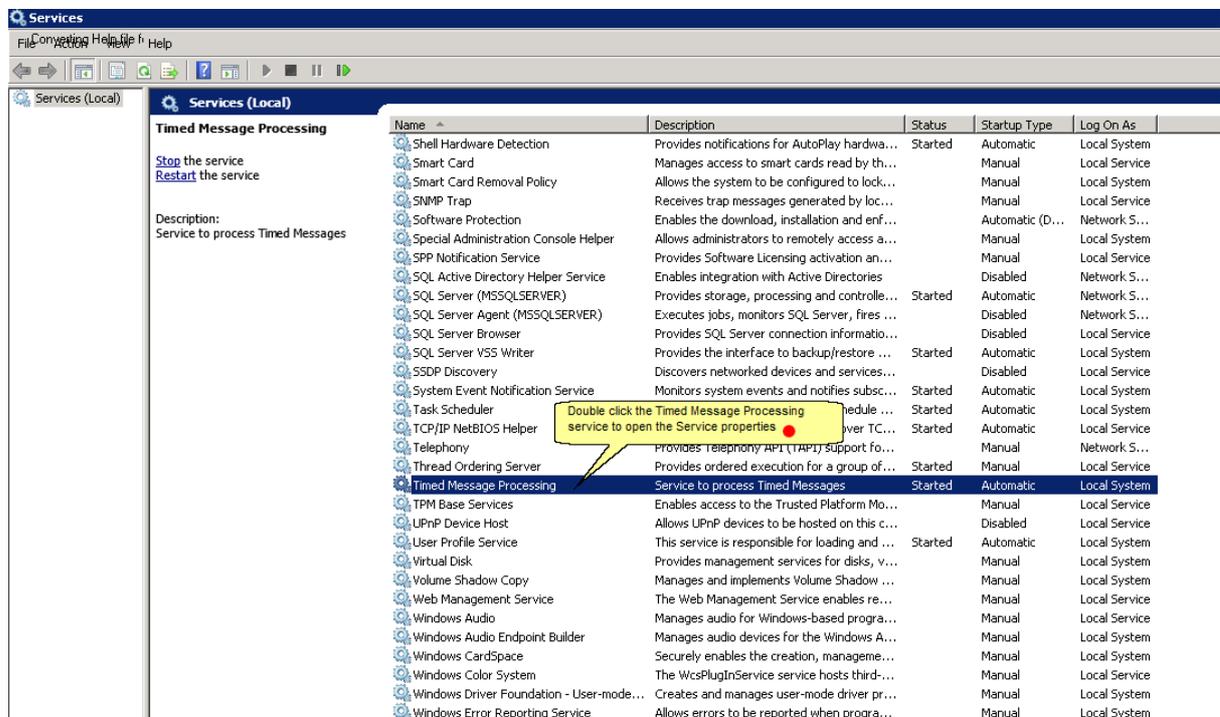
If you add, edit or delete a Timed Message then you will need to restart the Timed Message Service on the DAWN server so that it picks up the changes. You will need to speak to the DAWN support team or your IT department so that this service can be restarted. The **'Timed Message Processing'** service 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)

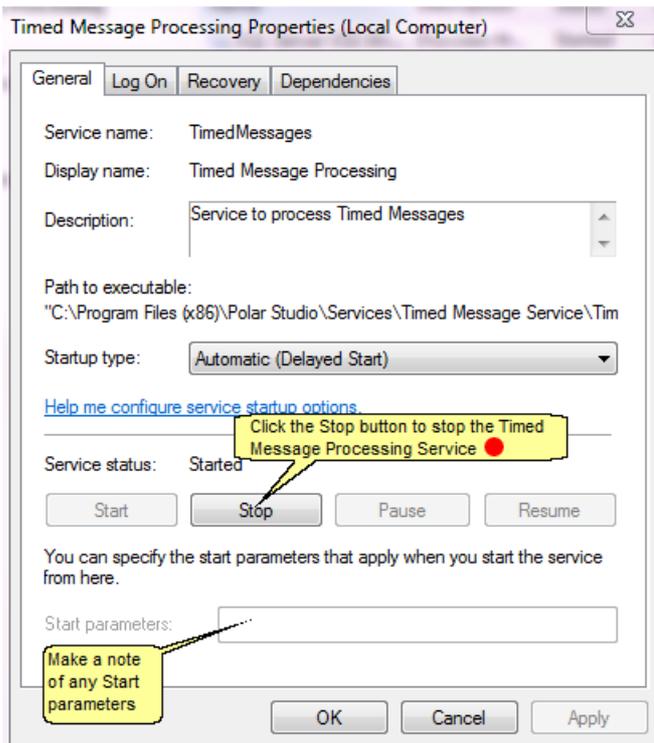
In the Search programs and files box type in services.msc and press Enter



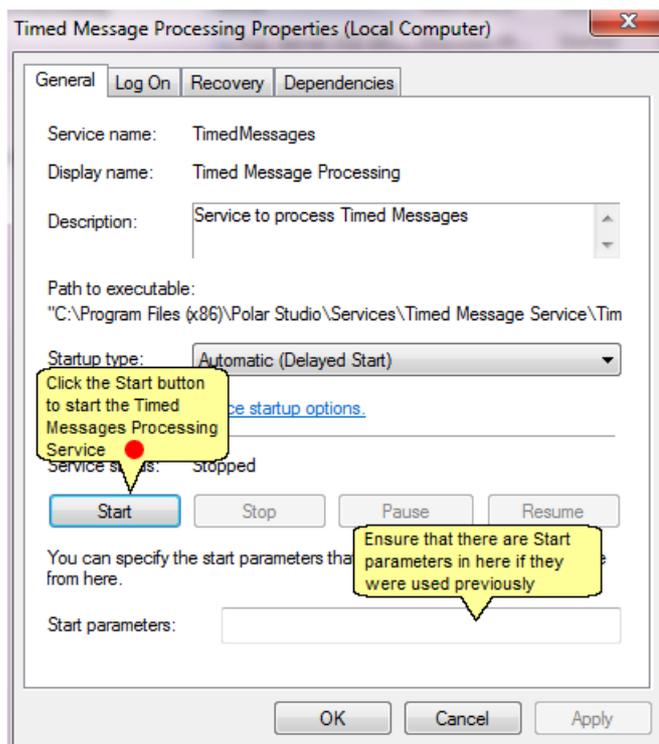
Scroll down the list of Services until you find Timed Message Processing



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.

The screenshot displays the DAWN system interface. The top navigation bar includes the DAWN logo, a home icon, a search icon for 'Patient', and icons for 'Lists', 'Calls', 'Reports', 'DAWN', 'Management', and 'Help'. The main content area is titled 'Anticoagulation' and features 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 five warnings. A 'Worklist' section on the right shows a table with columns for 'Patients with', 'Misser Test', and 'Active Treatment Plan'. A yellow callout box points to a red dot in the 'Misser Test' column, with the text 'Click here to add / edit an External System Connection'. The 'Management' dropdown menu is open, showing options like 'Normal Tables', 'Lookup tables', 'Clinic View settings', 'Message Management', 'Printing', 'Reports', 'Audit & security', 'Dawn Interface', 'System', and 'Coded Comments'. A sub-menu is also visible, listing 'Polar Tools', 'System Settings', 'International Settings', 'Data Exchange', 'Custom Modules', 'NHS Number Compliance', 'VGR Setup Screen', 'External System Connection' (highlighted in blue), 'Timer Manager', 'Error Log', and 'User Patient Access Log'.

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 checked="" type="checkbox"/>
DawnTest	SMS via Email		<input checked="" type="checkbox"/>

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

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

Down New Save Print 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.

External System Connection [X]

System Name [] *An External System Connection name needs to be added. This must be unique*

Connection Type [(Make a choice)] *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*

Description []

Username [] *Username and password of External System (not always required)*

Password []

From Address [] *The email address to send messages from*

URL []

Use a Fixed Email Address? *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.*

Fixed email address []

SMS Email Domain []

Server Name or IP [] *IP Address or Name of Email server or FTP server*

Port []

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

Requires TLS/SSL *Check if server requires secure connection*

File Type [(None selected)]

File Name [] *File path and name are used if File is the Connection Type*

Request Format [] *The following file types are available: Plain Text, HTML, PDF*

Expiry Date []

Maximum SMS Characters [] *Maximum characters allowed in SMS by provider*

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

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

External System Connection notes can be added here

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 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: Back, Forward, Down, New, Save, Print. Page: 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

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.

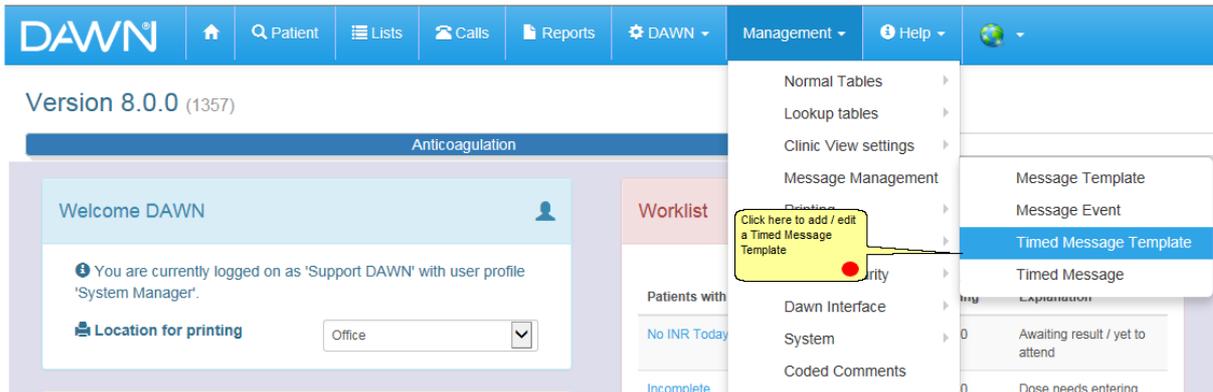
Navigation: Back, Forward, Down, New, Save, Print.

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

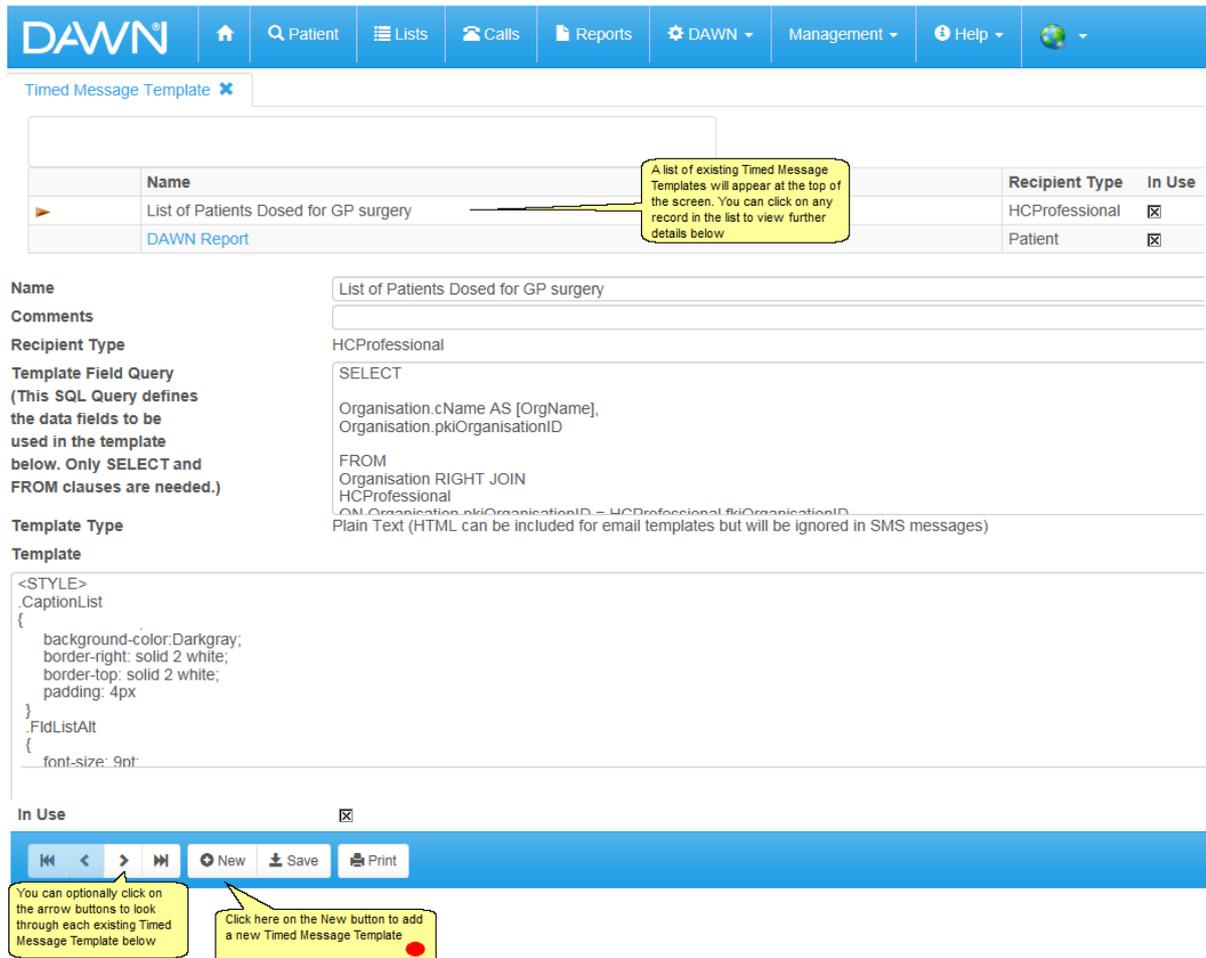
the External System Connection.

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
(Make a choice)

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

Template

In Use

Custom Module (None selected)

Maximum SMS Characters 40

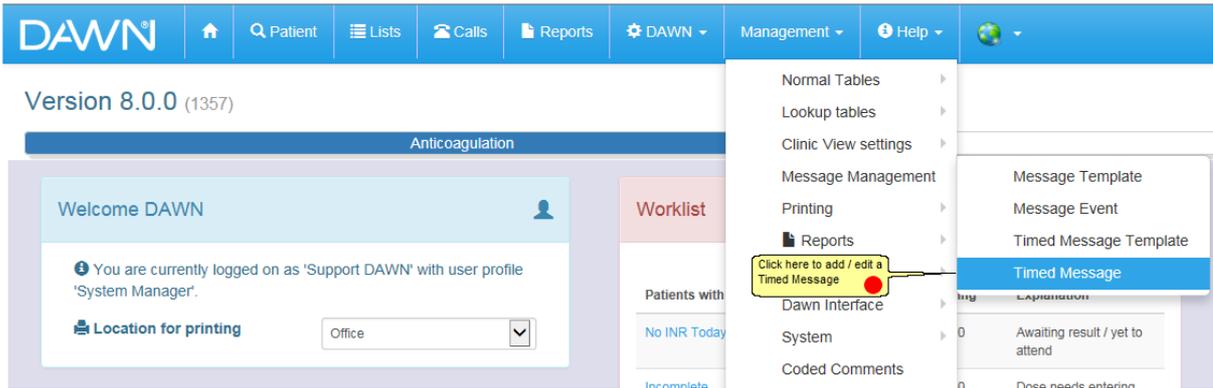
Once you have created a Timed Message Template above, please create one or more records on the Timed Messages screen for this template to define when the message should be sent and who the recipients will be.

✓ OK ✕ Cancel

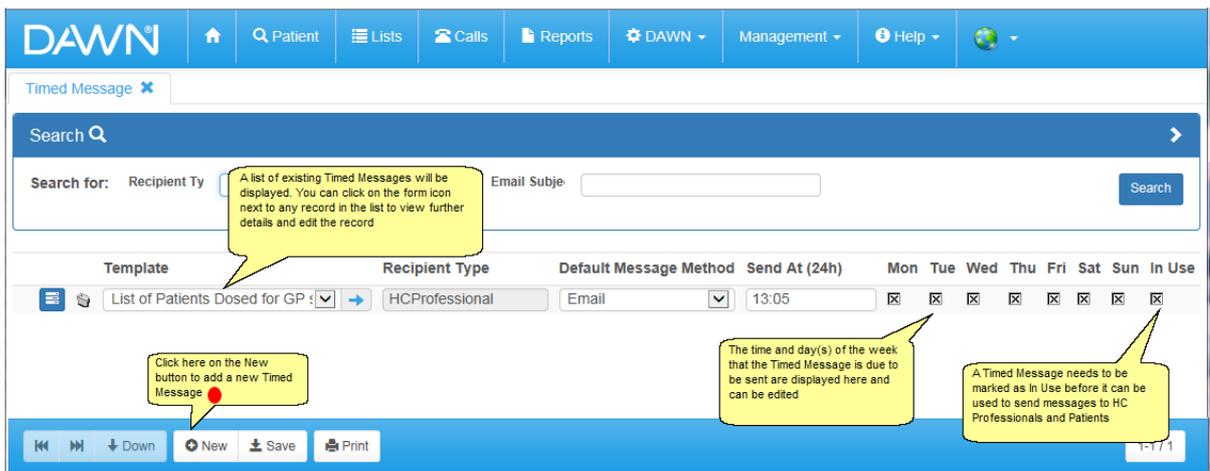
6.33.6 Adding/Editing a Timed Message

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

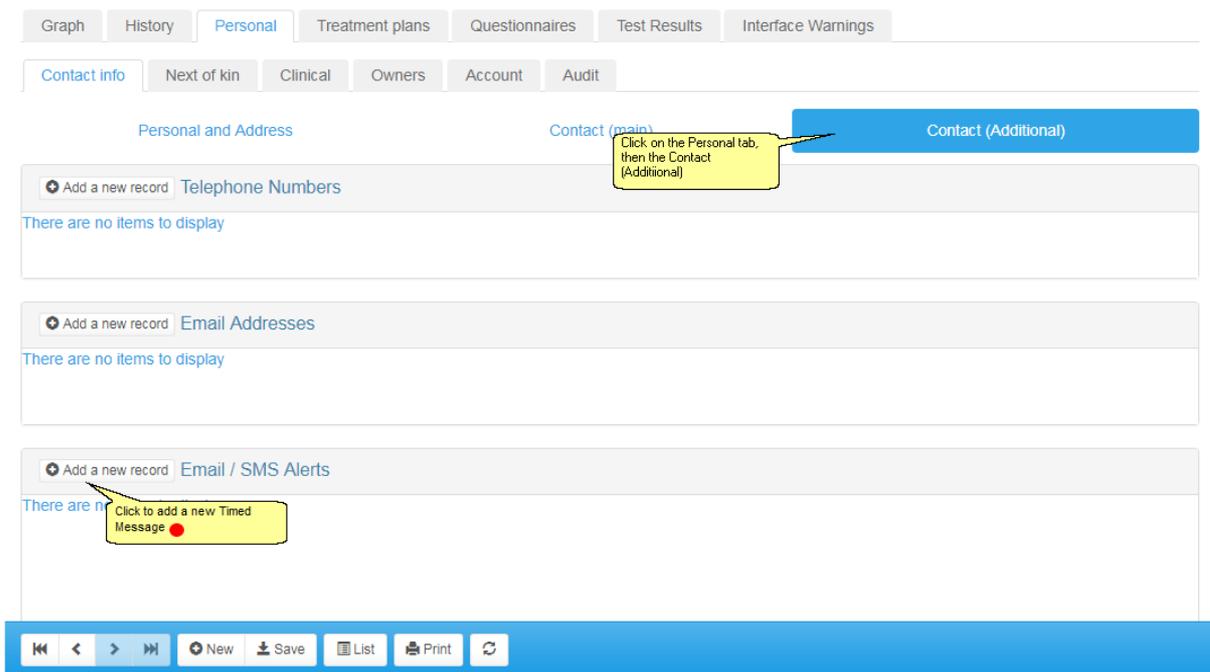
The screenshot shows the 'Timed Message' configuration form with the following fields and callouts:

- Template:** (Make a choice) - Callout: "A Timed Message Template needs to be chosen from the drop down list. This list only displays Templates that are 'In Use'"
- Recipient Type:** (Empty field)
- Default Message Method:** (Make a choice) - Callout: "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:** (Empty field with lock icon) - Callout: "An email subject is required"
- Send At (24h):** (Empty field)
- Days:** Mon, Tue, Wed, Thu, Fri, Sat, Sun (checkboxes) - Callout: "A time and day (or multiple days) must be chosen. This is when the message will be sent"
- SMS Provider:** (None selected) - Callout: "An SMS provider must be chosen from the drop down list if one has been configured in the External System Connections"
- In Use:** (checkbox) - Callout: "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) - Callout: "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"

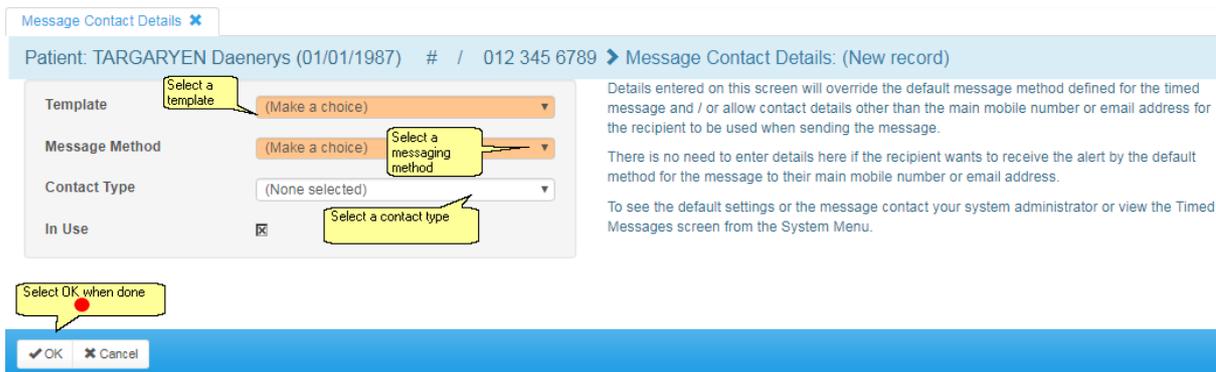
At the bottom, there are buttons for 'OK' and 'Cancel'. Callout: "Click here on the OK button to save this Timed Message and return to the list of Timed Messages"

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.



6.33.7.1 Adding a new timed message - patient specific



The three Message Methods are:

Email	Message sent by email
SMS	Message sent by SMS
Opt Out	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:

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

address	it has been entered into DAWN)
Specify	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

Add a new record → Email / SMS Alerts		
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	<input type="text" value="14 IMPERIAL AVENUE"/>	Email / SMS Alerts
Role	<input type="text" value="GP"/>	<input type="button" value="Add a new record"/>
Last name	<input type="text" value="Perry"/>	There are no items to display
First name	<input type="text" value="V U"/>	
Initials	<input type="text" value="P"/>	
In Use	<input checked="" type="checkbox"/>	
<div style="display: flex; border-bottom: 1px solid #ccc; margin-bottom: 5px;"> Address info Teams Account info Notes Patients </div>		
Title	<input type="text" value="Dr"/>	
National Number	<input type="text" value="G8712863"/>	
Local Number	<input type="text"/>	
Direct Telephone	<input type="text" value="07829 487435"/>	
Mobile	<input type="text" value="0777 351 5424"/>	
Email	<input type="text"/>	
Direct Fax	<input type="text" value="01539 324 6714"/>	
Messaging methc	<input type="text" value="Mail"/>	

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

Message Contact Details ✕

HCProfessional: 14 IMPERIAL AVENUE - Perry V U ➔ 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

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.

Select OK when done

✓ OK ✕ Cancel

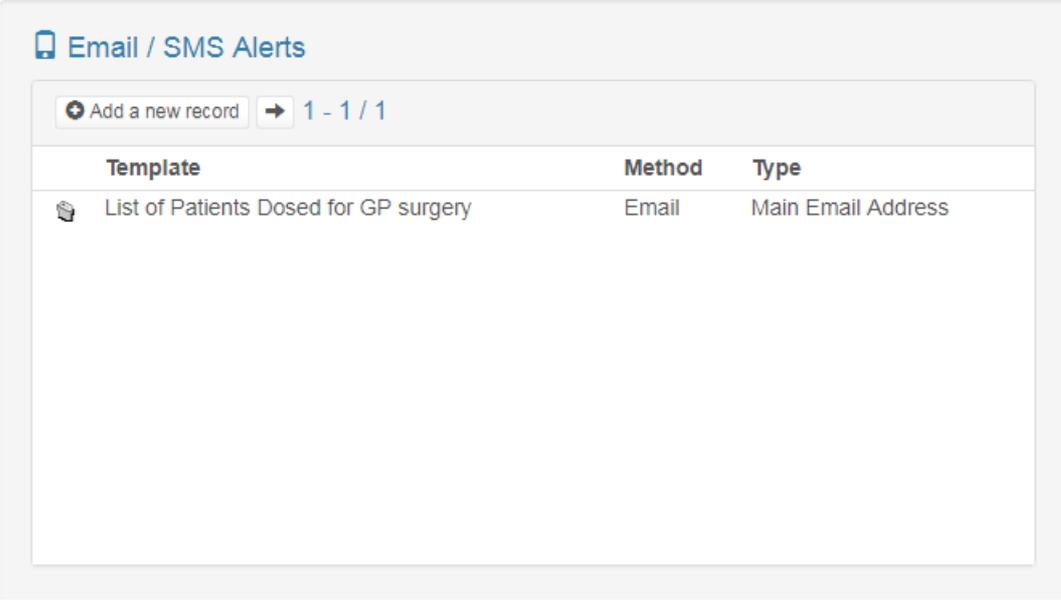
The three Message Methods are:

Email	Message sent by email
SMS	Message sent by SMS
Opt Out	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:

Main mobile no	This will send the message to the Healthcare Professional's main mobile number (if it has been entered into DAWN)
Main email address	This will send the message to the Healthcare Professional's main email address (if it has been entered into DAWN)
Specify	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



The screenshot shows a web interface titled "Email / SMS Alerts". At the top left, there is a plus icon and the text "Add a new record". To the right of this is a pagination indicator "1 - 1 / 1". Below this is a table with three columns: "Template", "Method", and "Type". The table contains one row with a trash icon in the "Template" column, the text "List of Patients Dosed for GP surgery" in the "Template" column, "Email" in the "Method" column, and "Main Email Address" in the "Type" column.

Template	Method	Type
 List of Patients Dosed for GP surgery	Email	Main Email Address

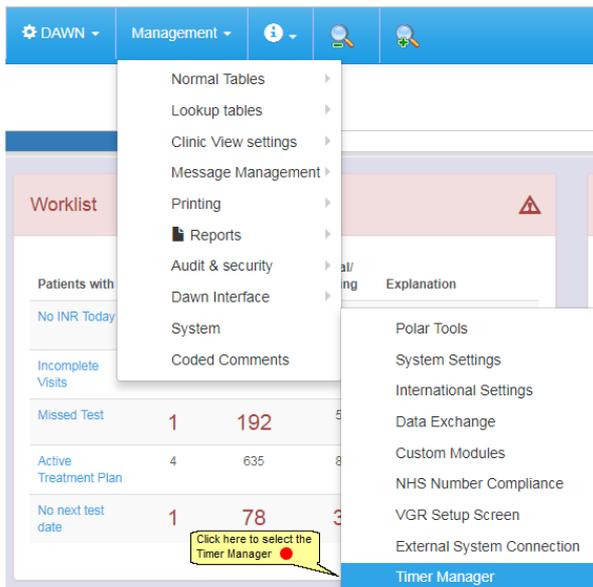
6.33.8.3 Review timed message settings - HCProfessional

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

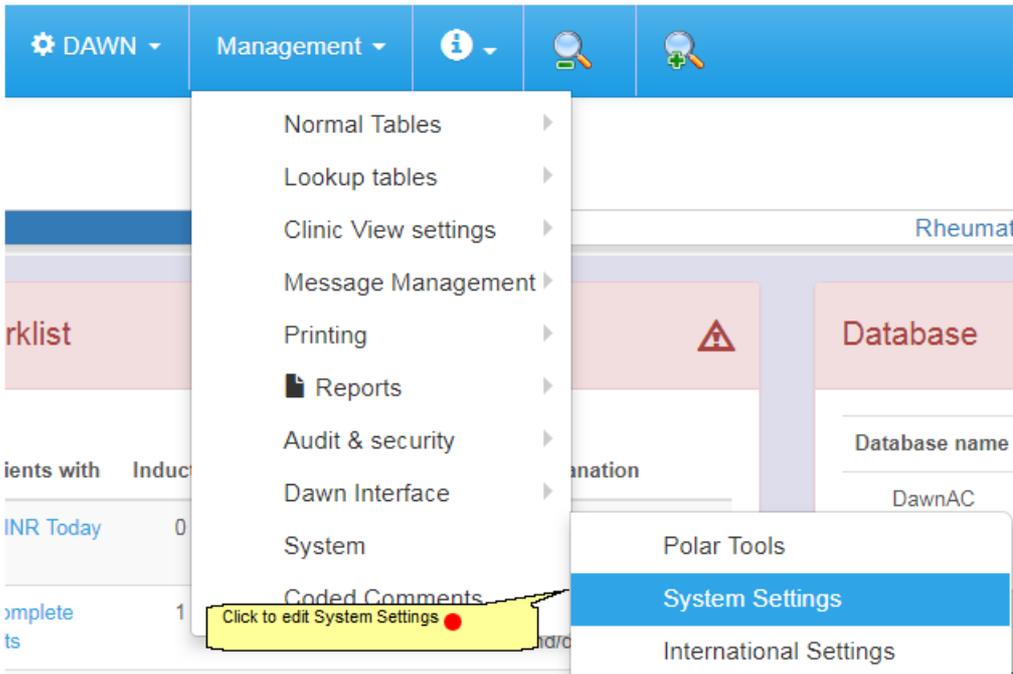
The Timer Manager screen displays the project the timer is running in, the interval in seconds in which the timer is checking for new tasks, the ID of the process and the current date and time. When the Timer Manager has a task running the task name is also displayed. The Timer Manager screen by default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



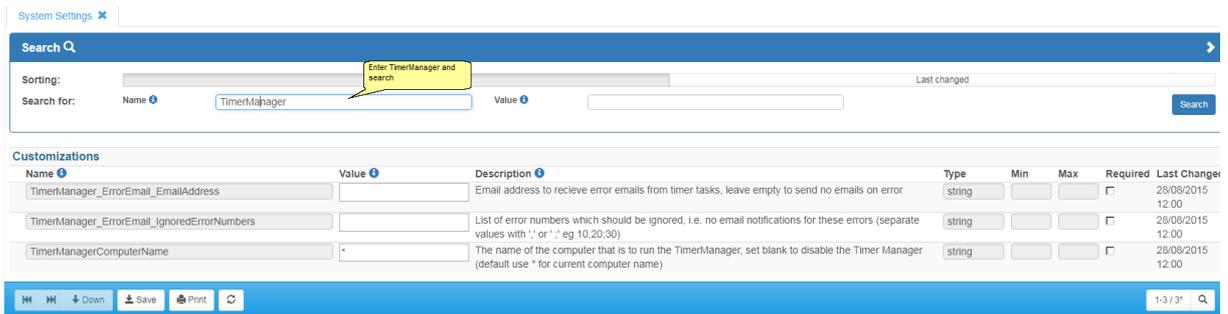
6.34.2 Settings - Timer Manager

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



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_SMTServerName**.

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

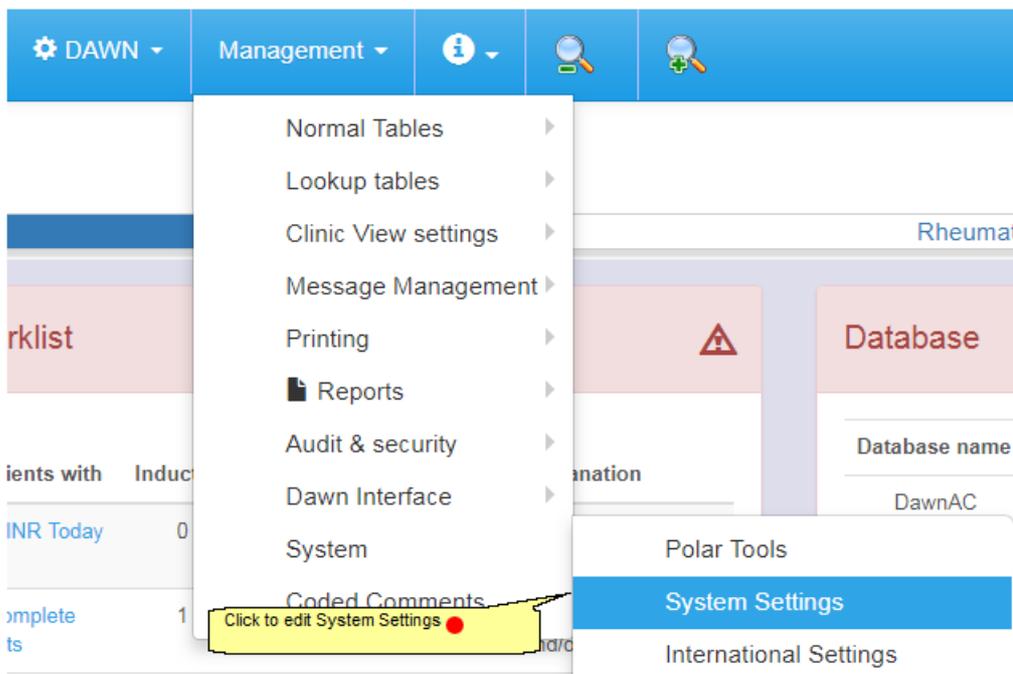
The default value for **TimerManagerComputerName** setting is * which will automatically identify the current server name that DAWN is running on.

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' interface. At the top, there is a search bar with 'DiaryExtensionStartTime' entered. Below the search bar, a table of customizations is displayed. The table has columns for Name, Value, Description, Type, Min, Max, Required, and Last Changed. The entry for 'DiaryExtensionStartTime' is highlighted.

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"/>	28/08/2015 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

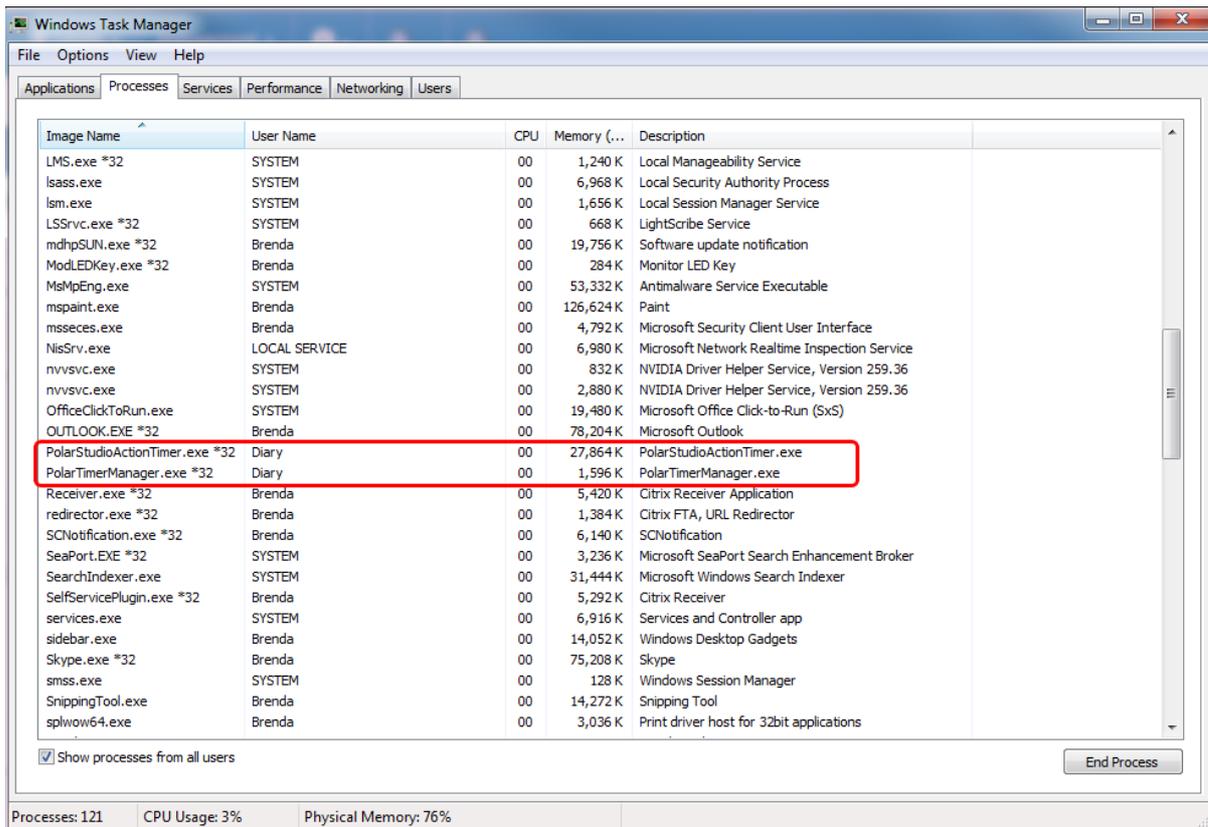
The last time the diary was updated by the Timer Manger can be checked in the DAWN system settings by finding the **Diary_AutoMaintenance_LastDate** setting and checking the value as shown in Figure 2. The format the value takes is **YYYYMMDD**.

The screenshot shows the 'System Settings' interface with a search for 'LastDate'. The results table shows two entries: 'Diary_AutoMaintenance_LastDate' and 'ErrorLog_AutoMaintenance_LastDate'.

Name	Value	Description	Type	Min	Max	Required	Last Chang
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.

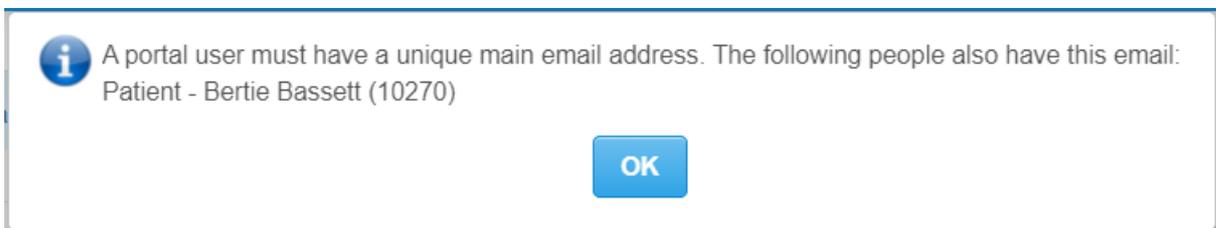
Graph	History	Personal	Treatment plans	Questionnaires	Test Results
Contact info	Next of kin	Clinical	Owners	Account	Audit
User	<input type="text" value="Bertie"/>				
Portal UserID	<input type="text" value="bertie@4s-dawn.com"/>				
Portal User	<input checked="" type="checkbox"/>				
	<input type="button"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

Annotations:

- The email address is pulled from the email address field on the contact info tab
- Check to make this account a portal user
- Click to set or reset a password
- Date and time registration was completed
- Date and time terms and conditions completed

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:



6.35.1.2 Setting up a HCProfessional Portal Account

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

The screenshot displays the 'Account info' tab for a user named Dawn. The interface includes the following fields and controls:

- User:** Dawn
- Password Expires:** 14/05/2050
- Failed logins:** 0
- Failed logins (all):** 99
- Locked:**
- Last login date:** 09/10/2023 10:37
- Total logins:** 1363
- User Profile:** System Manager
- Network Login:** (empty field)
- Portal UserID:** jonathan@4s-dawn.com
- Portal User:**
- Portal Password Expires:** 28/12/2023

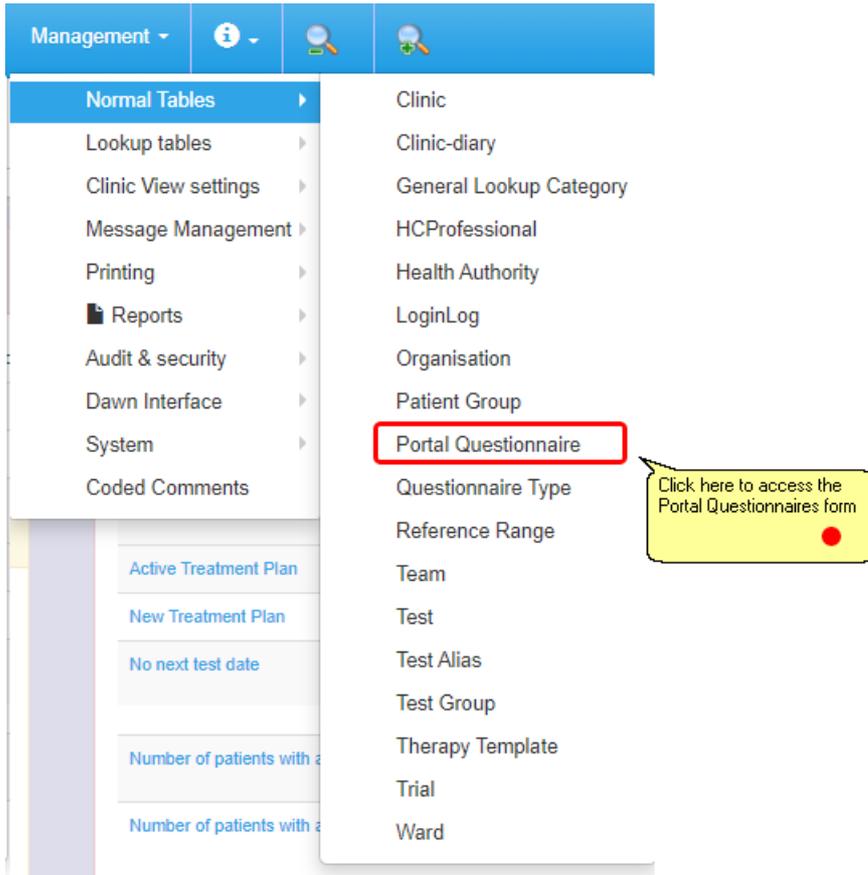
Annotations in the image provide additional context:

- A yellow callout box points to the 'Portal UserID' field, stating: "The email address is pulled from the email address field on the address info tab".
- A yellow callout box points to the 'Portal User' checkbox, stating: "Check to make this account a portal user".
- A blue callout box points to the 'Click to reset existing portal password for user' button, stating: "Click to set or reset a password".

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:

Portal Questionnaire ✕

Portal Questionnaire:

Code name:

In Use: Only questionnaires marked as in use are displayed in the portal

ⓘ You cannot delete questionnaires that are in use

Questions | Restrict Access Click this tab to restrict access to this questionnaire to specific clinics, disease areas, or patient groups

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

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

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: ⏪ ⏩ ↶ ↷ 🆕 New 💾 Save 📄 List 🖨 Print 🔄 1 / 2 🔍

The Portal Questionnaire form in Detail view

Portal Questionnaire ✕

Search ➤

Search for: Portal Questio Code name Search

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

The Portal Questionnaires form displayed as a searchable list.

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).

Answer	Used in Questions
Yes	1.1 & 1.2
No	1.3

Relationship: Parent (main) question

Answer Required: Yes

In Use:

Callouts:

- The type of control used to answer the question, i.e. radio buttons, free text, drop down list, checkbox
- Check this box if the user can select more than one answer (only available for drop down lists)
- 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".
- Must the response answer this question?

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 respondee 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

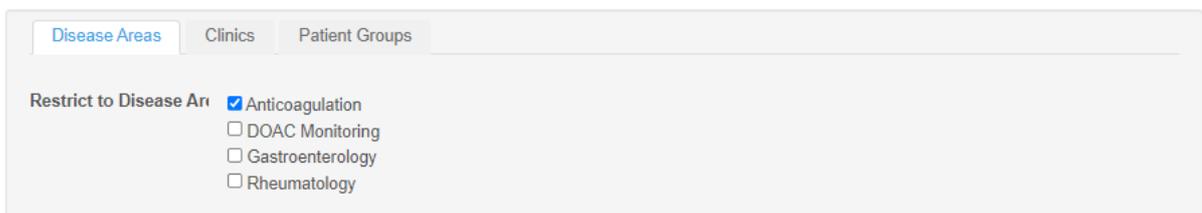
When designing questionnaires, it is sometimes necessary to add and remove questions, renumber questions, or change their relationships. DAWN does not make this difficult by preventing you from deleting or renumbering child questions or parent questions that have children. However, please take care, 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 seven 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 Patie

- 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

Indicates the number of recently completed questionnaires received (the value for classing as recent can be defined in the disease area settings)

Click on the questionnaire to read the responses

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	<i>Put "N/A" if your instruction was for <7 days and this day was not included</i>	
	3.02	<i>Put "0" if the day was included but you took no warfarin on that day.</i>	
	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

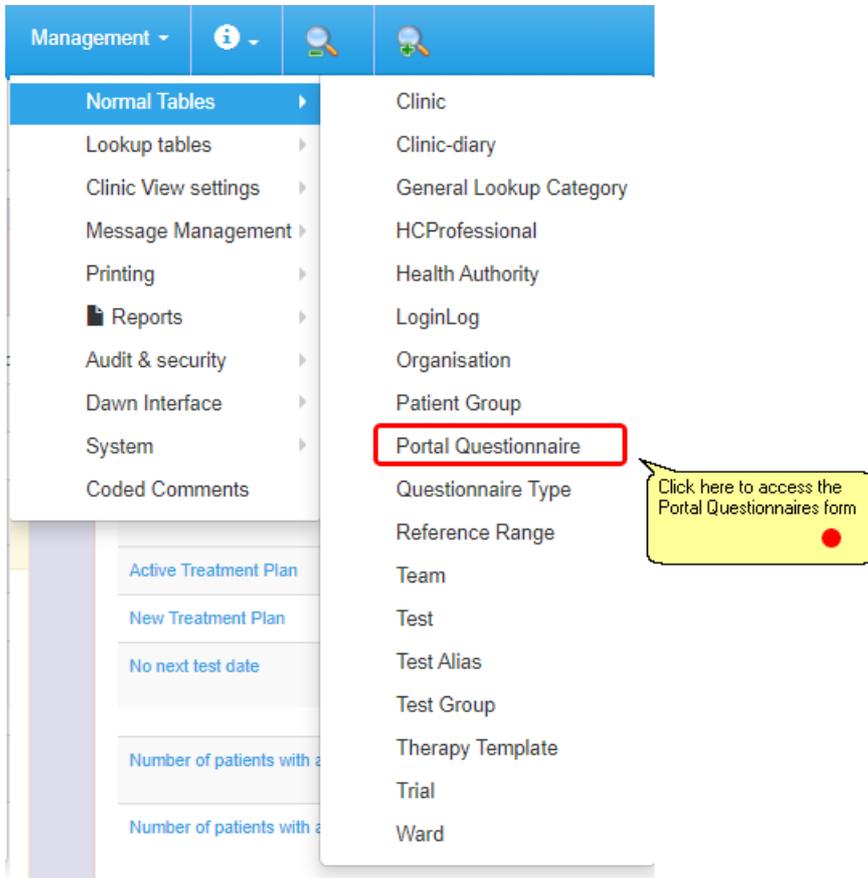
6.35.4 Portal Questionnaire Actions

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:

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



DAWN®

PortalQuestionnaireAction ✕

PortalQuestionnaire: INR questionnaire > PortalQuestionnaireAction: (New record)

Action (Make a choice) ▾

✓ OK ✕ Cancel

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*.

→ Action Result 1 - 1 / 1

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 a web application interface with three tabs: 'PortalQuestionnaire', 'Patient', and 'PortalQuestionnaireAnswers'. Below the tabs, there is a section titled 'Action Result 1 - 1 / 1' containing 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 is a 'HideProcessingLog' button and 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

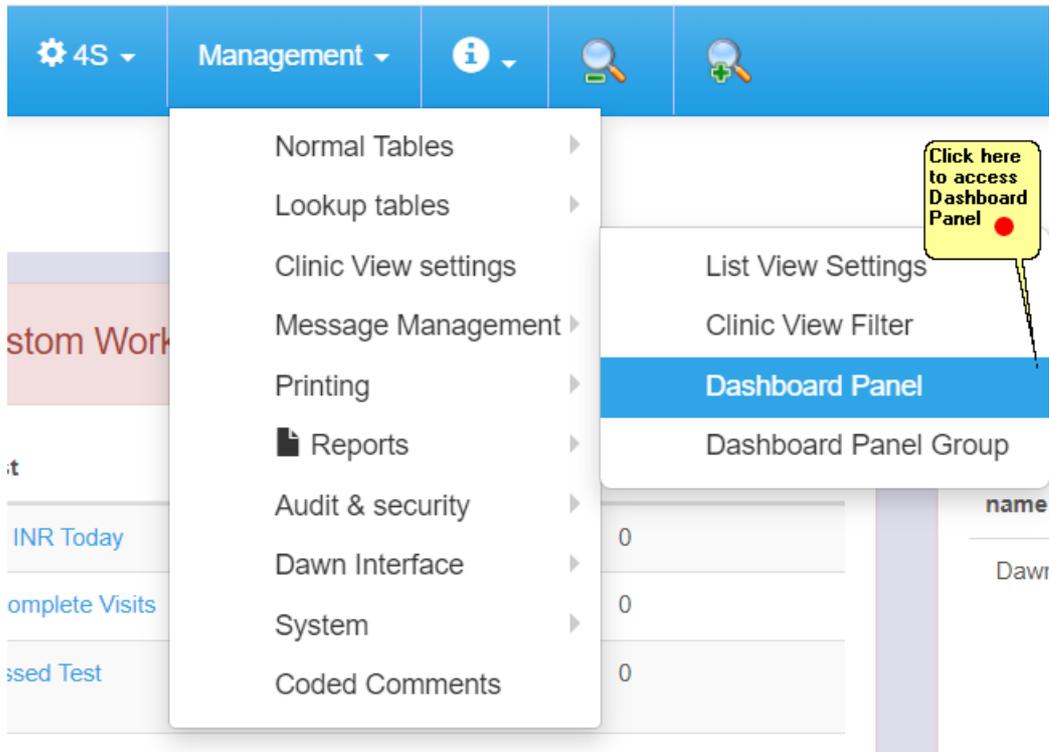
For example, the *Add Answers to Treatment Record* action updates a current open treatment record with a summary of the patient's answers. If no matching treatment record can be found, the action is retried every minute for the next 48 hours, during which time, if a new INR result is received or the 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.

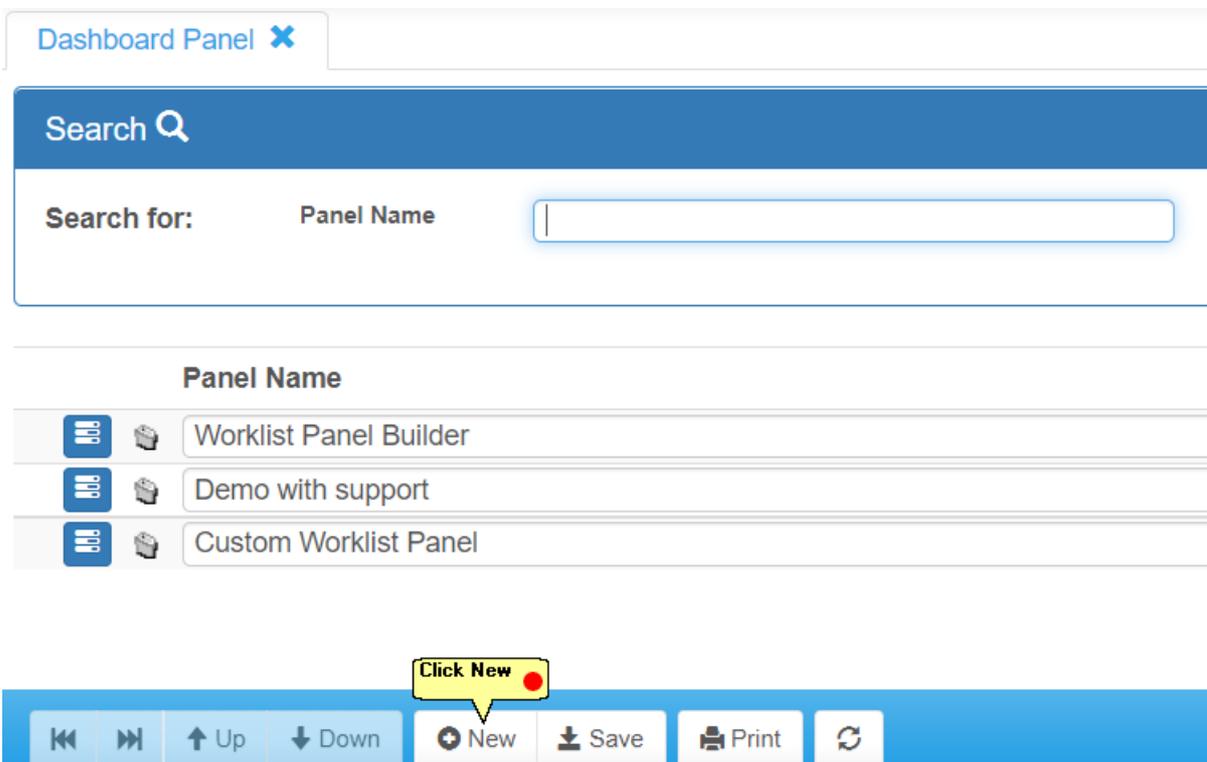
You can, at any stage of the process, mark the completed questionnaire as *Reviewed* to show that you have read the answers. Marking answers as reviewed removes the record from list views of newly completed questionnaires and cancels any further attempts to retry failed actions.

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

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

Split counts by therapy type?

Click to add new

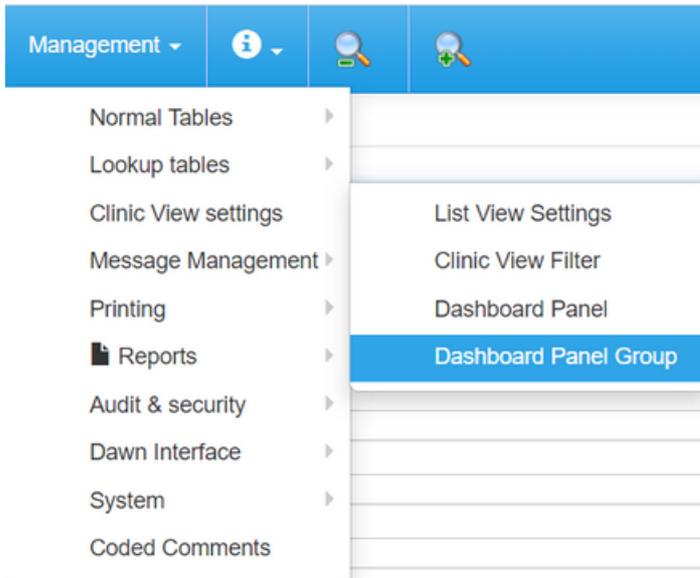
+ Add a new record Dashboard Panel Group

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 Enter the name of the Dashboard panel group

List View This is the list view you want to use

Listview Filter You must select a list view before selecting a filter. Changing the list view will clear the list view filter selection.

Dashboard Panel The Panel you want this to be a part of

Start Date Query A date expression, e.g. Date(), Date() - 1, Date() + 7, or DateSerial(2022, 02, 15)

End Date Query 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 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 AC Therapy only

Never Alert 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 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

Polar DataExchange ✕ Dashboard Panel ✕

Panel Name

Split counts by therapy type?

Create DataExchange Click on Create DataExchange and select the location you want to save it to

➕ Add a new record ➔ Dashboard Panel Group

Caption	
	No INR Today

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.

Polar DataExchange ✕

Export **Import** Customized import

- FSTPanel
 - Custom Worklist Panel
- ListViewFSTPanelGroup
 - No INR Today
 - Incomplete Visits
 - Missed Test
 - Active Treatment Plans
 - New Treatment Plans
 - No Next Test

Perform import/updates 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.

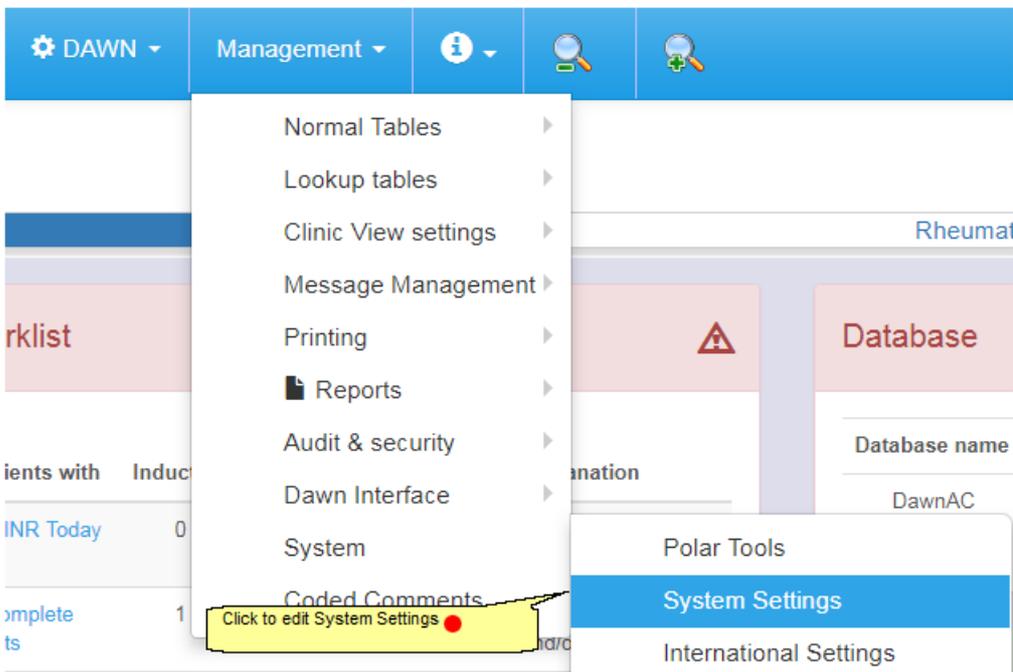
7 Editing System Settings



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:

Search for: Name Value

Customizations

Name 	Value 	Description 
AC_DisplayDosingInstructions_ShowTotalMgInDecimals	<input type="text" value="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	<input type="text" value="0"/>	Must the AC dosing-instructions be displayed using fractions (0) or decimals (1).
AC_DisplayTextStyleDosingInstructions	<input type="text" value="0"/>	Must the AC dosing-instructions be displayed in text-style (1) instead of HTML-formatted style (0)
AC_LMWH_PatientWeightMeasurementExpiryIntervalDays	<input type="text" value="30"/>	How long is the measurement of the patient's weight valid for prescribing weight-based LMWH-drugs

    Down  Save  Print  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 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 is displayed as 'Version 8.0.0 (1357)'. A callout box points to the 'Lists' menu item with the text 'Click here to go into the list views'. Below the navigation bar, the main content area is titled 'Anticoagulation'. On the left, there is a 'Welcome DAWN' section with a user profile and a 'Location for printing' dropdown menu. Below this is a 'Conditions of Use' section with a list of 10 warnings and conditions of use. On the right, there is a 'Worklist' table with columns: Patients with, Induction, Maintenance, Manual/Bridging, and Explanation. A callout box points to the 'Incomplete Visits' hyperlink in the table.

Patients with	Induction	Maintenance	Manual/Bridging	Explanation
No INR Today	0	14	0	Awaiting result / yet to attend
Incomplete Visits	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

The screenshot shows the DAWN software interface. At the top is a navigation bar with 'DAWN' logo and menu items: Home, Patient, Lists, Calls, Reports, DAWN, Management, Help. Below this is a 'List View' header with a close button. The main area is divided into a left sidebar and a main content area.

Left Sidebar (Filter Records):

- Filter Records:** Includes a dropdown menu with 'With' and 'Incomplete Visits' selected. A callout states: 'With / Without filter only applies to the top filter only'.
- Dates:** Includes a dropdown menu with 'On or Before' selected. A callout states: 'The available filters for this list view are displayed here. You can choose several at once to find the correct subset of patients.' Below this is a 'Start' field with '08/12/2017' and an 'Apply' button. A callout points to the 'Apply' button: 'Please check the list views and filters after a system installation or upgrade'.
- Other filters:** Clinic, Therapy, HC Professional, Organisation, Patient Group, and Message, each with a right-pointing arrow.

Main Content Area:

At the top, there are several tabs: 'List', 'Annual Review', 'Hold Monitor Listview', 'In reprocessing', 'Poor Performing Patient List', 'Reminders new', and 'Non attendance'. Below these is a 'Filter Date' section with 'With Incomplete Visits' and 'On or Before 08/12/2017'. A callout points to these tabs: 'Up to 20 list views are displayed in these tabs - click on the relevant tab'.

Below the filter date, it says '4 records found.' and shows a table of patient records:

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

Below this table is another section titled 'In Range' with another table:

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

At the bottom of the main content area, there is a 'Print the list by clicking here' callout pointing to a 'Print' button. At the very bottom, there is a blue bar with 'OK' and 'Print' buttons.

Other callouts in the main content area:

- One pointing to the patient records table: '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.'
- Another pointing to the filter tabs: 'Ensure that the list view filters are clearly labelled to prevent confusion if adding new ones within the system.'

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, there is a navigation bar with the DAWN logo and several menu items: Home, Patient (with a search icon), Lists, Calls, Reports, DAWN (with a gear icon), Management, and Help. Below the navigation bar, the version number 'Version 8.0.' is displayed. Two yellow callout boxes provide instructions: one points to the 'Patient' search icon with the text 'To search for a patient, click here.', and the other points to the search area 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 features a 'Welcome DAWN' section with a user profile 'Support DAWN' and a 'Location for printing' dropdown menu set to 'Office'. Below this is a 'Conditions of Use' section with a list of terms. To the right, there is a 'Worklist' table with the following data:

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: Patients with active Treatment Plans for selected app.area

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" value="-All-"/>	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 I	<input type="text"/>	Next of kin I	<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
	BANKS	James	92	X64922	5933344594	24/05/1927	14 ST HELENS GARDENS		CLIFTON	YORKS	YY1 1YY	Male
	BANKS	Julia	47	750000175		07/09/1972	12 Elm Court	Dutton	Bakersfield	Lancashire	LA5 7TH	Female

If you don't find the patient in the list, click on New

⏪ ⏩ ↑ Up ↓ Down ➕ New ⏴ Save 🖨 Print 🔄 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

Annotations:

- The patient DOB can be entered here. Once entered, DAVNI will calculate the patient age.
- All mandatory fields on this form are shaded. The mandatory fields must be filled in before finishing the wizard or moving onto the next step.
- Mandatory fields are only contained in the patient and treatment plan tabs. Once these are filled in, the patient wizard can be finished at any point.
- A patient picture can optionally be added here by clicking on the picture icon and attaching the picture of the patient.
- Contact 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.
- Click here to move onto the next step and start adding treatment details.
- If the Finish option is chosen at this point without having entered any treatment plan details and a DAVNI 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 DAVNI system setting specifies that the treatment plan is either admitted or undecoded by default, a screen will appear asking whether you wish to enter the information later or move onto the treatment page. 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.

9.2.1 Adding a patient picture

Enter topic text here.

9.2.2 Wizard Screen - Next of Kin 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:
 Height: Inch Measured at:
 BMI:
 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.
 You can click finish here if you do not wish to add any contact details.
 Click here to move onto the next step and start adding contact details.

9.2.4 Wizard Screen - Contact Details

New Patient Wizard ✕

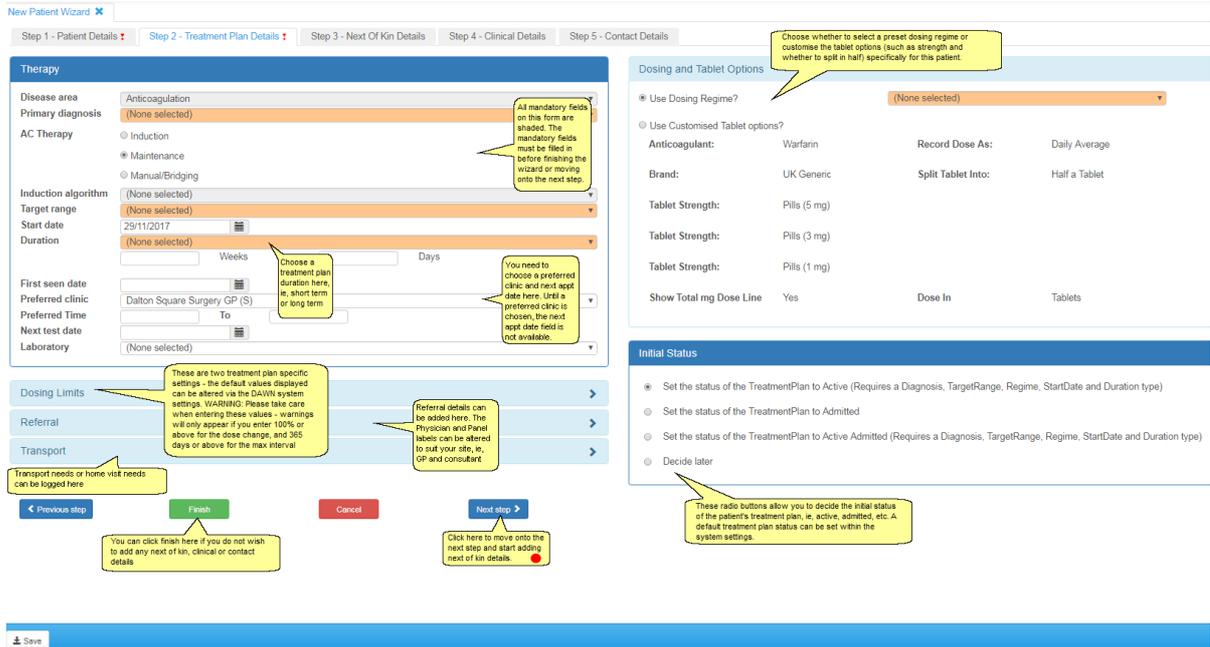
Step 1 - Patient Details ▾ Step 2 - Treatment Plan Details Step 3 - Next Of Kin Details Step 4 - Clinical Details **Step 5 - Contact Details**

Referring GP
 Consultant
 If a GP and consultant have been chosen in the treatment plan step, then these will be displayed here

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 HCProfessionals, eg, letters, faxes, etc.

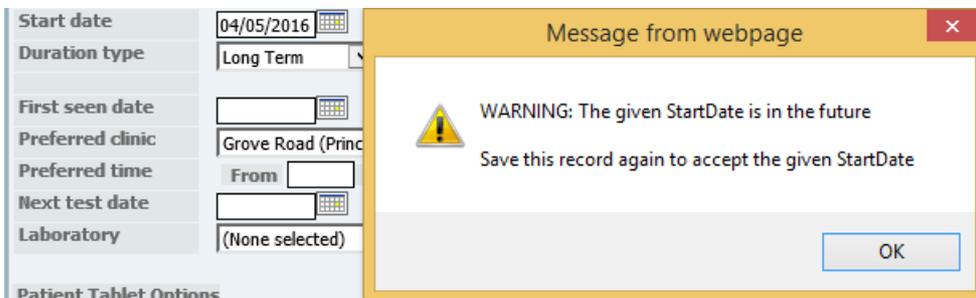
Click here to return to a previous step in the new patient wizard.
 Click here to finish the new patient wizard and go to the main patient screen.

9.3 Wizard Screen - Entering Treatment Plan



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.



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: Record Dose As:

Brand: Split Tablet Into:

Dose In:

Tablet Strength:

Tablet Strength:

Tablet Strength:

Show Total MG Instructions Line: [View Sample Instructions](#)

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.

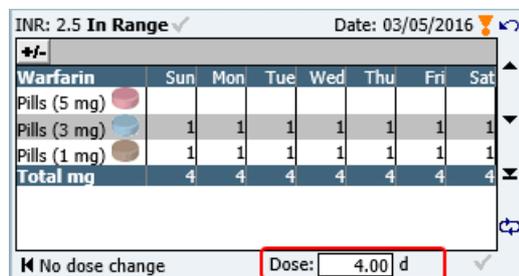
3) Change the settings as appropriate for this patient:

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:



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
Total mg	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

Patient X
TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 The Square

Risk Class: [Redacted]
 Prev. Clinic: Dalton Square Surgery GP (S)
 Phone: 0153663091 - home
 Age: 30

By default, the caption includes the patient's gender. This can be hidden using the system setting "PatientForm_Caption_DisplayGender".

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

The system can also be configured to display the GP, consultant or laboratory in the header caption using the system setting "PatientForm_Caption_Field".

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)

Add history note
 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.

Dosing | Contacts | Letters | Drugs | Events | Procedures | Reviews | Reminders | Groups | Documents

INR: [] Date: 29/11/2017

Accept INR | DNA | Un-schedule

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 29/11/2017	0.0	0.00 d					

9.4.1 Adding History

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

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 29/11/2017	0.0	0.00 d					

Add INR and Dose History

Date [] INR [] Dose [] Miss Days []

Add

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 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
 Date of birth 01/01/1987
 Date of Death
 Ethnic origin Caucasian
 Language ICELANDIC
 Status Active

Deactivate Deceased

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 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
 Date of birth 01/01/1987
 Date of Death
 Ethnic origin Caucasian
 Language ICELANDIC
 Status Active

Deactivate Deceased

Some of the field captions can be customised via system settings, for example:

9.4.2.1.1 Contact Info Main

The screenshot shows a web interface for patient contact information. At the top, there are tabs for 'Graph', 'History', 'Personal' (selected), 'Treatment plans', 'Questionnaires', 'Test Results', and 'Interface Warnings'. Below these are sub-tabs for 'Contact info' (selected), 'Next of kin', 'Clinical', 'Owners', 'Account', and 'Audit'. The main content area is titled 'Personal and Address' and features a prominent blue 'Contact (main)' button. To the right of this button is a link for 'Contact (Additional)'. Below the button, there are several input fields: 'Home phone' with the value '01539563091', 'Mobile phone' with '07527113321', 'Work phone' with '01539563092', 'Email address' with 'daenerys@targaryen.com', 'Fax number' (empty), and 'Messaging method' set to 'Mail' with a dropdown arrow.

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 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 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

Deactivate **Deceased**

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

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.

Allergies	
Allergy	Severity
Nuts	

Allergies	
Allergy	Severity
Eggs	
Nuts	

Risks

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 Dawn Hospital
Organisation2 (None selected)
Organisation3 (None selected)
Organisation4 (None selected)

Click in Organisation 2, 3 or 4 to add an additional owner

→ Monitored by 1 / 1

Organisation	Disease Area
Dawn Hospital	Anticoagulation

Indicates the monitoring organisation for each application area

Send messages to:

Patient
Next of kin
GP
Consultant
Healthcare professionals

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

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

Select the new risk class

Patient x Drug Risk Class x

ADAMS,

Risk Class

Pref. Clinic

Phone

Age:

High

Search for:

(None selected)

Medium

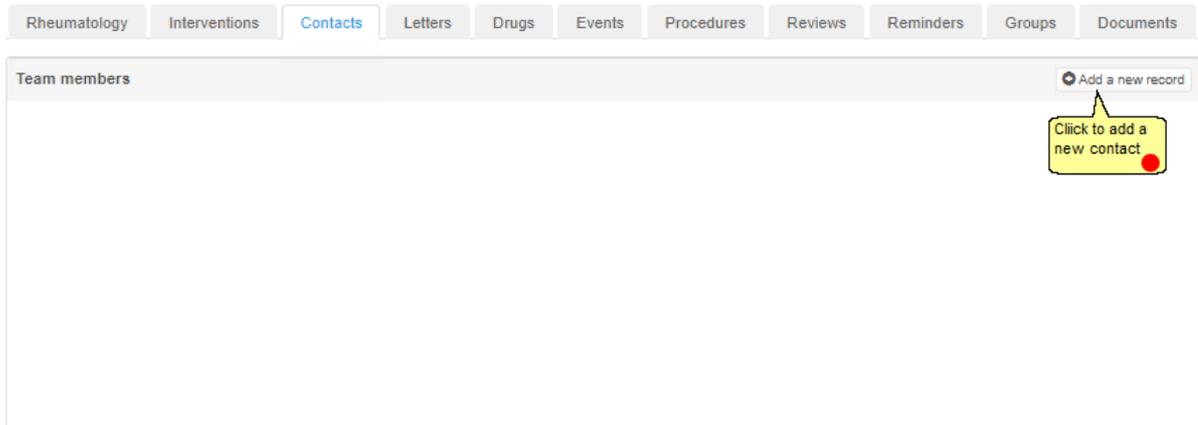
Pharmacist to dose

Low

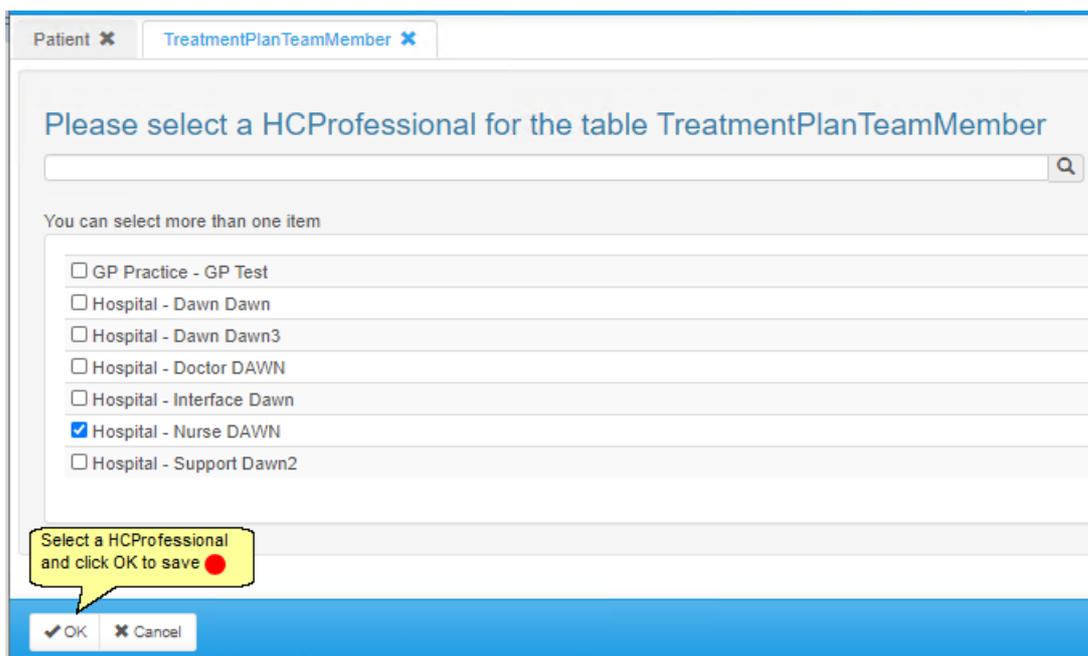
Paediatric Patient

High

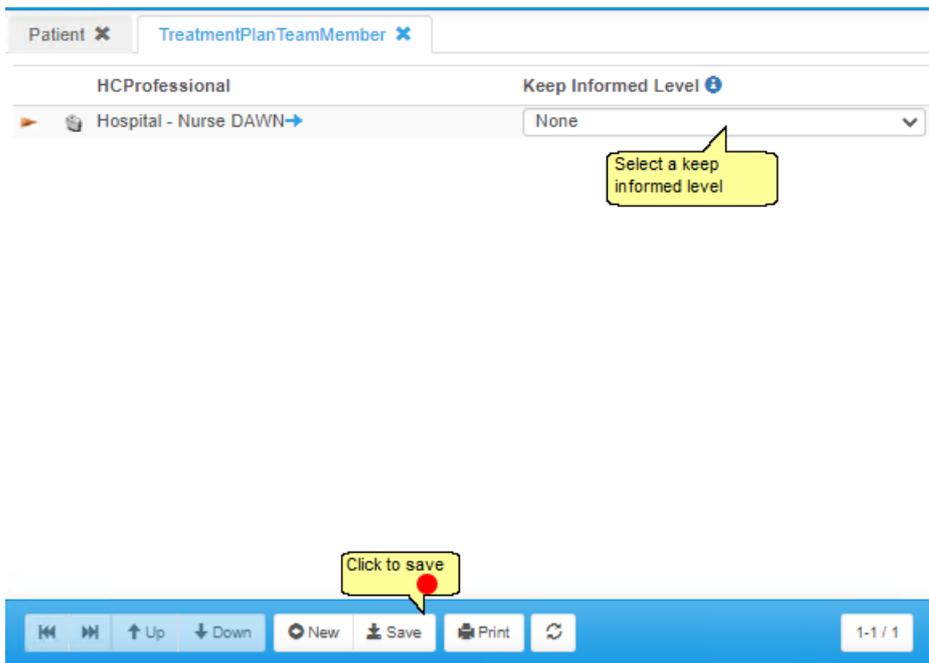
9.4.4 Adding patient contacts



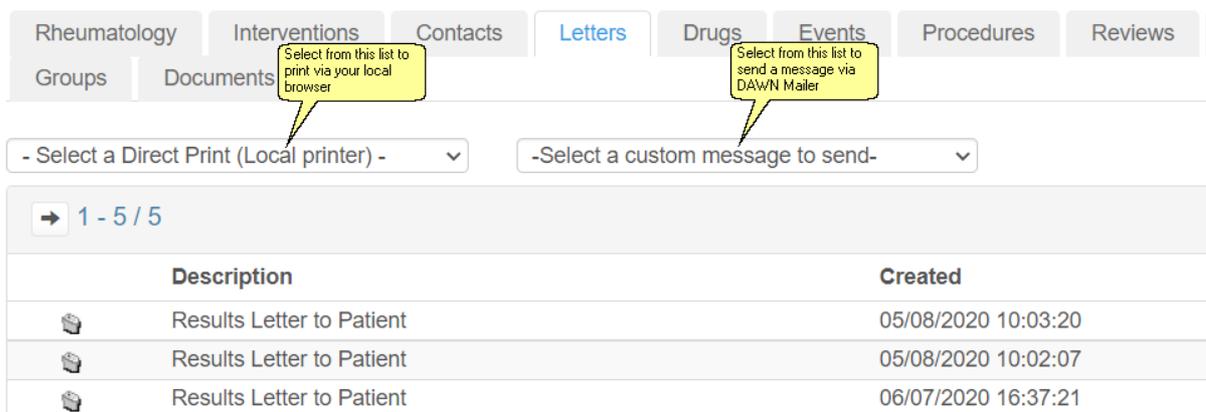
9.4.4.1 Select a contact



9.4.4.2 Select keep informed level



9.4.5 Generating messages manually



9.4.6 Adding drugs

You can record other drugs the patient is taking. If these drugs are know to interact with warfarin, you can set these interactions up. See section: Marking a drug as interacting

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 ✕

Q

- 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 Change the duration of warning, if applicable days

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 This drug is current and interacting	29/09/2022				Significant enhanced anticoagulation effect

Other Drugs

Drug	Start date	End date	Dose	Frequency	Interaction
⚠ Amlodipine This drug is current and not interacting	29/09/2022				

9.4.7 Adding events

The screenshot shows a navigation bar with tabs for Rheumatology, Interventions, Contacts, Letters, Drugs, Events (selected), and Procedures. Below the navigation bar are tabs for Groups and Documents. A callout box points to an 'Add Event' button with the text 'Click to add an event'. Below the button, the text 'There are no items to display' is shown.

9.4.7.1 Select the event

The screenshot shows a navigation bar with tabs for Rheumatology, Interventions, Contacts, Letters, Drugs, Events, Procedures, Reviews (selected), and Reminders. Below the navigation bar are tabs for Groups and Documents. A callout box points to an 'Add a new record' button with the text 'Add an review'. Below the button, the text 'There are no items to display' is shown.

9.4.7.2 Select the severity

The dialog box is titled 'Please select a Severity for the table Events'. It features a search bar at the top right. Below the search bar is a list of severity options: Major, Minor, Moderate (No Hospitalisation), Moderate (Hospitalisation), Major (Hospitalisation), and Fatal. A callout box points to the 'Minor' option with the text 'Select a severity'.

9.4.7.3 Complete the event details

The screenshot shows a form titled 'Events' with the following fields and callouts:

- Event:** - GI Bleed. Callout: "Choose the type of event from a drop down list of events."
- Severity:** Moderate (No Hospitalisation). Callout: "Choose the event severity from a drop down list of severity gradings."
- Date:** 23/05/2022. Callout: "Select the event date from the date picker"
- Notes:** A text area with a callout: "Add any pertinent free text notes about the event"
- Warn Level:** Normal. Callout: "Choose a warn level from the drop down list."
- Duration of Warning:** 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:** At the bottom, there is an 'OK' button with a callout: "Click here on the OK button to save this record."

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 Bar:** Includes tabs for Rheumatology, Interventions, Contacts, Letters, Drugs, Events, **Procedures** (selected), and Reviews. Below it are 'Groups' and 'Documents' sub-tabs.
- 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 Select a procedure

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

✓ OK ✗ Cancel

Click here on the OK button to save this record.

9.4.9 Adding reviews

Rheumatology Interventions Contacts Letters Drugs Events Procedures **Reviews** Reminders

Groups Documents

+ Add a new record Add an review

There are no items to display

9.4.9.1 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

Click here on the OK button to save this record. ●

✓ OK ✕ Cancel

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 Add a reminder date

Reminder Add a reminder description

Notes Add a reminder notes, if applicable

Complete

Lead Days Add a reminder date lead days

User

Treatment Plan

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 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	<input type="text" value="Enter a description"/>
Date	<input type="text" value="23/05/2022 15:18:15"/>
Size	<input type="text"/>
File Name	<input type="text"/>
Visible For Patient	<input checked="" type="checkbox"/> Browse for the image and the other details will be completed
Document	<input type="button" value="Choose File"/> <input type="text" value="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

Note: 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.

Note: 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:

The screenshot shows the 'Induction to Maintenance Transfer' dialog for patient SNOW John. It includes a stability check table, induction settings, and maintenance settings.

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

Maintenance Settings			
Patient 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"/>		

Buttons: Transfer (green), Cancel (red)

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. Ageno 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		mg per day			
		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** 📅 ✓

- Calc prevented: Manual/Bridging Therapy. Dose manually.

Treatment Notes ⓘ

Accept dose
New INR/Dose
Tested
No Further Tests

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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.

The screenshot displays a clinical software interface for managing a patient's therapy. At the top, there are navigation tabs: Dosing, Contacts, Letters, Drugs (with a red notification icon), Events, Procedures, Reviews, Reminders, and Groups. Below these is a 'Documents' section. The main area shows an INR of 2.6, which is 'In Range' with a green checkmark. The date is set to 01/01/2018. A status indicator shows 'Not scheduled'. A dosing instruction box contains the text 'Take no Warfarin'. A yellow tooltip points to this box, stating: 'Even when no dosing instruction is found, you can double click here to enter a custom instruction'. To the right of the instruction box, a red box contains the text: 'Calc prevented: Manual/Bridging Therapy. Dose manually.'. Below the instruction box, the 'Dose' field is set to '0.00 d?' with a yellow 'dose zero' label. The 'Next' field is empty. At the bottom of the interface, there are several buttons: 'Accept dose' (red), 'New INR/Dose', 'Tested', and 'No Further Tests' (with a checkbox).

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

INR: 2.8 In Range ✓ Date: 01/01/2018

Not scheduled

Calc prevented: Manual/Bridging Therapy. Dose manually.

Treatment Notes

Customize dosing-instruction

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg					6.0	3.0	3.0
Total mg	0	0	0	0	6	3	3

Enoxaparin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00 40Mg	<input type="checkbox"/>						
20:00 40Mg	<input type="checkbox"/>						

Enoxaparin 1 mg per Kg (q12h)

Patient's weight: 40.8 kg (89.9 lbs) (Measured 20/12/2017)

Dose 1.71 d? Dose decreased by 43% Next

Accept dose New INR/Dose Tested No Further Tests

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

INR: 2.6 In Range ✓ Date: 03/05/2018

Not scheduled

Click to close the dosing instruction box

Treatment Notes

Customize dosing-instruction

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg					6	3	3
Total mg	0	0	0	0	0	0	0

Enoxaparin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00 0Mg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
20:00 0Mg	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Enoxaparin 1 mg per Kg (q12h)

Patient's weight: 41.7 kg (91.9 lbs) (Measured 31/10/2016) - Too old to use. Please re-measure.

Dose 0.00 d? dose zero Next 28/06/2018 8 wk ?

Accept dose New INR/Dose Tested No Further Tests

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

Warning: You entered a Dose that is significantly different from the previous Dose (current Dose: 1.71, previous Dose: 10.00). Please correct the Dose or click the OK button.

Warning: You have prescribed a LMWH-drug. Therefore, the next recommended appointment-date is expected to be on or before 10/05/2018

OK Click OK

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.

Click on each section

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

Manually set the dose and next test date and Click accept dose when complete

Dose 0.00 d ? (do) [calendar icon] ✓

Accept dose New INR/Dose Tested No Further Tests

Calc prevented: Manual/Bridging Therapy. Dose manually.

Treatment Notes ⓘ

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:

The screenshot shows a patient record for TARGARYEN, Daenerys - Female - 01/01/1987 - 012 34. The interface includes a header with the patient's name and a 'Patient' tab. Below the header, there are several fields: Risk Class (Low), Pref. Clinic (Dalton Square Surgery GP (S)), Phone (01539563091 - home), and Age (30). A progress bar is visible above the 'Diagnosis' section. The 'Diagnosis' section shows 'ATRIAL FIBRILLATION' with a target range of '2.0 - 3.0' and a start date of '01/10/2016 - Indefinite'. The treatment plan is 'Sinthrome Mixed Tabs (plain text / Daily Avg)'. A yellow callout box points to the 'Treatment Plan' section with the text 'Click on the hyperlink for treatment plan details'. The 'Treatment Plan' section shows '< 1 > of 1 active' and a 'View' button. The 'Risks' section is also visible.

Patient ✕

TARGARYEN, Daenerys - Female - 01/01/1987 - 012 34

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

Sinthrome Mixed Tabs (plain text / Daily Avg)

Treatment Plan < 1 > of 1 active [View](#)

Risks

Click on the hyperlink for treatment plan details

11.1 Stopping Treatment

The screenshot shows the DAWN software interface for managing a patient's treatment plan. The top navigation bar includes 'DAWN', a home icon, 'Patient', 'Lists', 'Calls', 'Reports', 'DAWN', and 'Manage'. Below the navigation bar, there are tabs for 'Patient' and 'Treatment plans'. The main content area is titled 'Anticoagulation' and contains the following fields:

- Primary Diagnosis:** - ATRIAL FIBRILLATION (29/11/2017)
- Start date:** 01/10/2016
- First seen date:** (empty)
- Duration:** Long Term
- Indefinite:** (checkbox)
- Preferred clinic:** Dalton Square Surgery GP (S)
- Preferred time:** From (empty) until (empty)
- Cessation Reason:** (None selected)

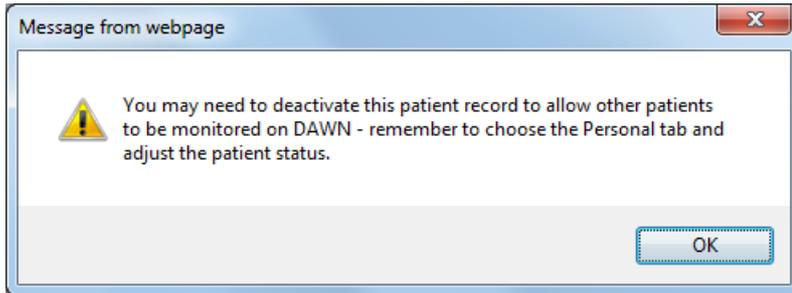
At the bottom, the status is 'active'. There are three buttons: 'suspend', 'stop', and 'Admit'. A yellow callout box with a red dot points to the 'stop' button, containing the text 'Click to stop the treatment plan'.

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.

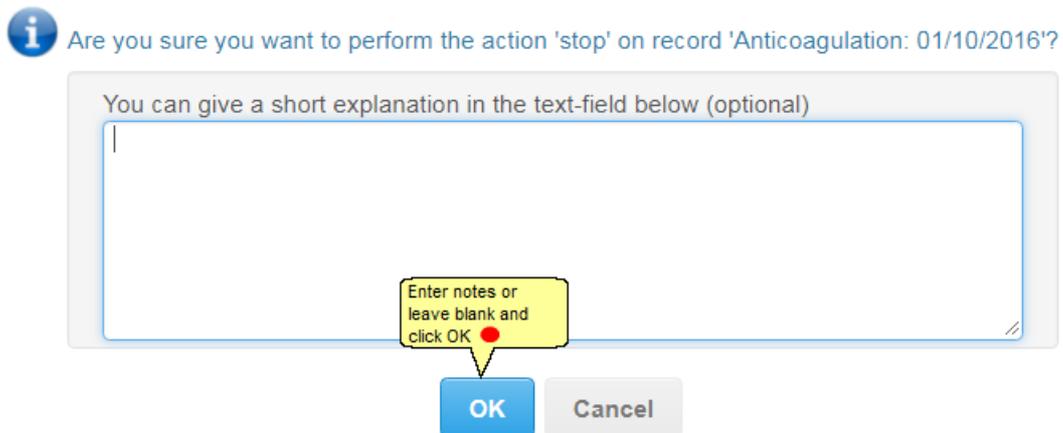
1. If you wish to enter a note explaining why treatment was stopped, type your note in the notes field.
2. Press OK to confirm you wish to stop the Treatment Plan.

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.

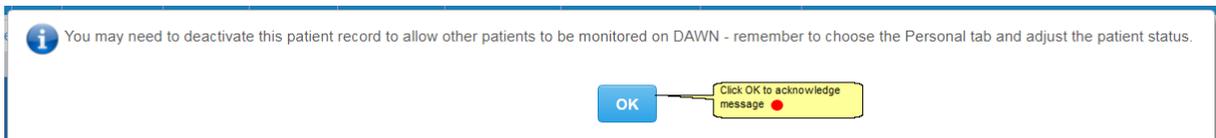


11.1.1 Add an optional note about stopping



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.

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

Contact info Next of kin Clinical Owners Account Audit

Personal and Address Contact



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

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 record interface with the following details:

Field	Value
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

At the bottom of the form, there are two buttons: 'Deceased' and 'ReActivate'. A yellow callout box with a red dot points to the 'ReActivate' button, containing the text: 'Click to reactivate the patient'.

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.

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

Contact info Next of kin Clinical Owners Account Audit

Personal and Address Contact

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 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 patient management system interface. At the top, there is a navigation bar with the DAWN logo and icons for Home, Patient search, Lists, Calls, and Reports. Below this, there are tabs for 'Patient' and 'Treatment plans'. The main content area shows patient details for TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345. The details include Risk Class (Low), Pref. Clinic (Dalton Square Surgery GP (S)), Phone (01539563091 - home), and Age (30). A progress bar is visible above the diagnosis section. The diagnosis is 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 1 active plan, with a 'View' button. The word 'active' is highlighted with a red box.

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 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 **stopped** View

Risks

Active patient with a stopped treatment plan

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 - Treatment stopped

Anticoagulant: Sinthrome Mixed Tabs (plain text / Daily Avg)

Treatment Plan: < 1 > of 1 **Inactive** View

Risks

Inactive patient

DAWN | Home | Patient | Lists | Calls | Reports

Patient x Treatment plans x

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.

Table: 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



HINT

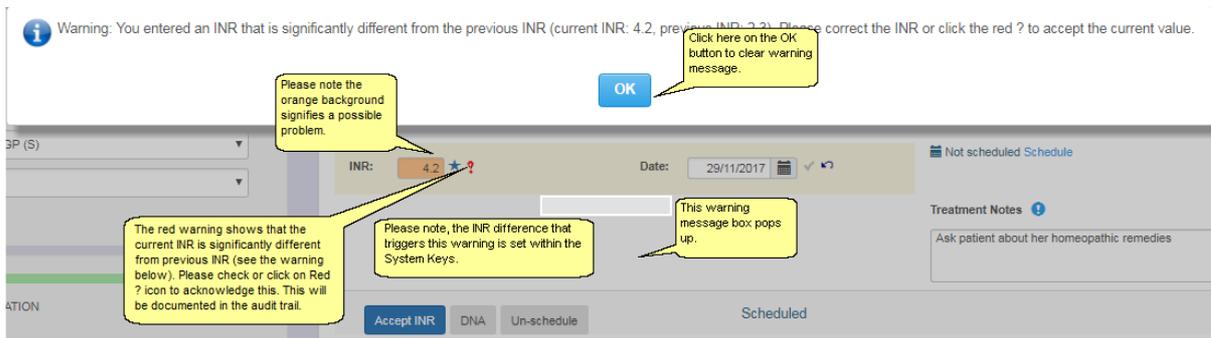
When you enter and Accept an INR, the INR time is automatically recorded as the current time at this moment. This allows you to order list views or reports by the INR time to ensure you deal with INRs received earlier ahead of INRs received later. If you know the real sample time of the INR and you want to use this instead, you can amend the INR time on the Detailed Treatment Screen.

12.1.1 Calendar

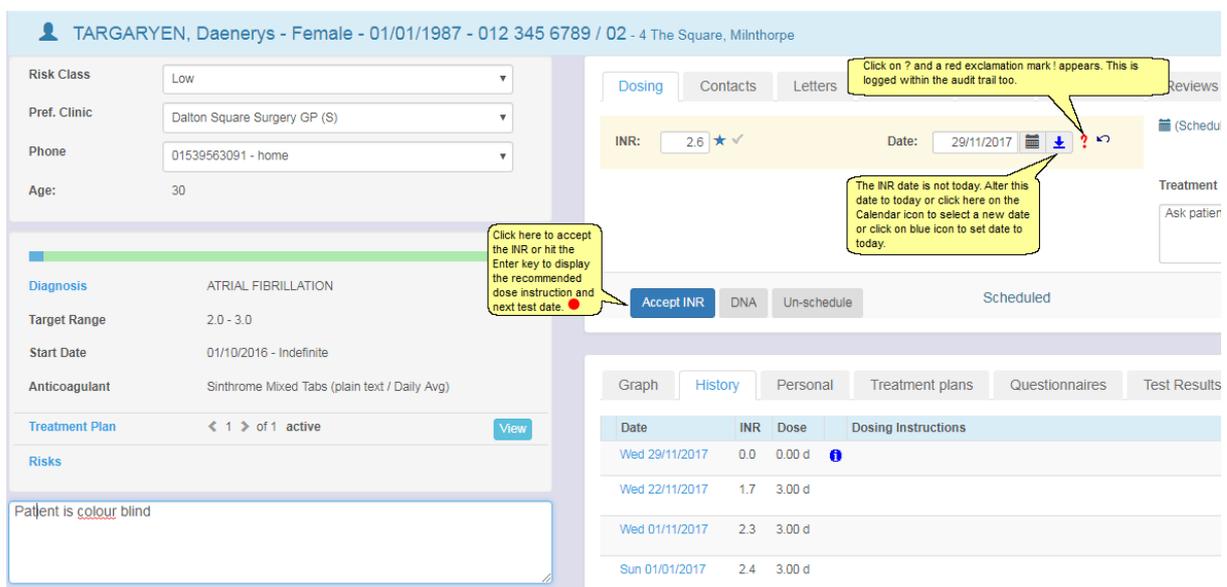
12.2 Detailed Treatment Screen

	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

12.3 Entering INRs Significantly Different From Previous



12.4 Entering INR Date That is Not Today



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 ≤ 1.5 or ≥ 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

The screenshot shows the 'Accept the Dosing Instruction' screen in DAWN. The interface includes a top navigation bar with tabs for Letters, Drugs, Events, Procedures, Reviews, Reminders, Groups, and Documents. The main content area displays patient information, including INR (3.7 High) and Date (29/11/2017). The dosing instruction is '2mg/3mg ALTERNATE DAYS'. A notification indicates 'Dose decreased by 17%'. The 'Accept dose' button is highlighted in green. A table below shows the history of dosing instructions.

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		Not in range (Red bar)	Ask patient about her homeopathic remedie
Wed 01/11/2017	2.3	3.00 d				In range (Green bar)	
Sun 01/01/2017	2.4	3.00 d				In range (Green bar)	
Mon 07/11/2016	2.1	3.00 d				In range (Green bar)	
Fri 07/10/2016	1.9	3.00 d				In range (Green bar)	

Callouts and annotations:

- INR date or date of instruction is displayed here.** (Points to INR and Date fields)
- The Dosage Instruction appears here** (Points to '2mg/3mg ALTERNATE DAYS')
- The numerical dose is displayed here.** (Points to '2.50 d')
- This section gives the % dose change and direction.** (Points to 'Dose decreased by 17%')
- The next test date is displayed here.** (Points to 'Next 13/12/2017 2 wk')
- Warnings and important information messages are displayed here.** (Points to 'Dose changed by 17%', 'Dose Change: 1 OUT OF 1 ABOVE 3.3', 'HIGH INR: CHECK WITH PATIENT')
- The Accept Dose button is colour-coded as follows:**
 - Red: There are warnings that need to be acknowledged before the dose can be accepted.
 - Amber: There are warnings flagged against the record but these have been acknowledged and the user is able to accept the dose.
 - Green: There are no warnings flagged against the record and the user is able to accept the dose.
- Click here to accept the dose.** (Points to 'Accept dose' button)
- Click on the icons to the left to see what they do** (Points to navigation icons)
- 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.** (Points to 'Interface Warnings' tab)
- This is a visit % time in range indicator.** (Points to 'In range' column in the table)
- The history lines of dose instructions are displayed here.** (Points to the table)

12.7 Amending the Dosing Instruction

INR: 3.6 High ⚠ Date: 15/12/2017

Warfarin Sun Mon Tue Wed Thu Fri Sat

mg 3 2½ 2½ 3 2½ 2½ 2½

Dose 2.64 d ✓ Dose decreased by 12%

Next 29/12/2017 2 wk

Accept dose New INR/Dose

Personal Treatment plans Questionnaires Test Results Interface Warnings

Dose Dosing Instructions Time DNA In range Comments

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				

Callouts:

- Click here to skip or miss days of treatment or to boost treatment temporarily.
- Click here to undo the dose recommendation and start again.
- Important warnings and information of dose instructions are displayed here.
- 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 accept the dose when completed.
- 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.
- 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.
- 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.
- 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.

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

INR: 3.6 High ⚠ Date: 15/12/2017

Warfarin Sun Mon Tue Wed Thu Fri Sat

mg 3 2½ 2½ 3 2½ 2½ 2½

Dose 2.64 d ✓ Dose decreased by 12%

Next 29/12/2017 2 wk ✓

Accept dose New INR/Dose Tested No Further Tests

Callouts:

- 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.

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

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

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 ✓ ↻

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
Total mg	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 | Reminders

INR: ★ ✓ Date: 12/01/2018 📅 ⬇️ ✓ ↻

(Scheduling info not available)

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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	2 wk							
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																														

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.

INR: Date: 

Click here to undo the dose

Accept INR DNA Un-schedule Scheduled

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	<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>Total mg</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	Total mg	3	3.5	3.5	3	3.5	3.5	3.5	7 d		
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																															
Total mg	3	3.5	3.5	3	3.5	3.5	3.5																															

12.7.4.1 Status returned to pre-authorized state

INR: In Range ✓ Date: 

Not schedule Last

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
Total mg	3						

Dose d ✓ No dose change Next 2 wk ✓

Accept dose New INR/Dose Tested No Further Tests

12.7.5 Tablet Shifts

eg. The 3 1/2 mg has moved from Wednesday to Tuesday.

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3 1/2	3	3 1/2	3	3 1/2	3	3 1/2

On each click of the icon each tablet count is moved one position to the left.

12.7.6 Miss and Boost Days

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)							
Pills (1/2 mg)	4	5	4	5	4	5	4
Total mg	2	2.5	2	2.5	2	2.5	2

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 software interface for Warfarin management. A white warning box with a blue 'i' icon is centered on the screen, containing the text: "The maximum value for the Miss-or-Boost days is 2". Below the warning box, the interface displays the patient's name "square, Milnthorpe", the "Dosing" tab, and the current INR value "4.9 High" with a red warning icon. The date is set to "03/06/2019". The dosing schedule is configured for "0.00 mg for 3 days, then:". A table shows the dosing schedule for Warfarin over a 7-day period, with a total mg of 2 for each day. The current dose is "1.79 d" with a red warning icon and a note "Dose decreased by 28%". The next dose is scheduled for "10/06/2019" in 7 days.

The miss or boost days maximum is controlled by the system key: MaxMissOrBoostDays

12.7.7 Zero Dose

The screenshot shows a software interface for Warfarin management. A white warning box with a blue 'i' icon is centered on the screen, containing the text: "Warning: You entered a Zero-Dose. Please correct the Dose or click the red ? to accept the current value." Below the warning box, the interface displays the patient's name "square, Milnthorpe", the "Dosing" tab, and the current INR value "4.4 High" with a red warning icon. The date is set to "18/12/2017". The dosing schedule is configured for "0.00 mg for 1 days, then:". A callout box points to the "0.00" value, stating "The dark blue background indicates a ZERO dose." Another callout box points to the "d ?" icon, stating "This is the zero or NO dose warning message box." A third callout box points to the "undo" icon, stating "This is the No dose change icon." A fourth callout box points to the "up arrow" icon, stating "This is the zero dose icon." A fifth callout box points to the "down arrow" icon, stating "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". The current dose is "0.00 d ?" with a red warning icon and a note "(dose zero)". The next dose is scheduled for "25/12/2017" in 7 days. The interface also shows buttons for "View", "Accept dose", "New INR/Dose", "Tested", and "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

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

Click here on the blue 'Reschedule' hyperlink to select a new clinic diary date and time.

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	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (3 mo) 1 1 1 1 1 1	2 wk			

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	Mon 15/01/2018	Tue 16/01/2018	Wed 17/01/2018	Thu 18/01/2018	Fri 19/01/2018	Sat 2
	---	16 (20)	14 (20)	24 (38)	15 (20)	14 (20)	
	11 (-3d/-21%)	12 (-2d/-14%)	13 (-1d/-7%)	14	15 (+1d/+7%)	16 (+2d/+14%)	(+3

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 for TARGARYEN, Daenerys. The patient's details include: Risk Class (Low), Pref. Clinic (Dalton Square Surgery GP (S)), Phone (01539563091 - home), and Age (30). A bar chart displays the time in range (TTR) for the last 12 months, with a tooltip indicating 94% in range. The target range is 2.0 - 3.0, and the start date is 01/10/2016 - Indefinite. The anticoagulant is Warfarin 1mg Strength (in mg/ Daily). The treatment plan is active, and there are no risks listed.

Field	Value
Risk Class	Low
Pref. Clinic	Dalton Square Surgery GP (S)
Phone	01539563091 - home
Age	30
Diagnosis	ATRI 94% - in range last 12 months (incl manual / bridging)
Target Range	2.0 - 3.0
Start Date	01/10/2016 - Indefinite
Anticoagulant	Warfarin 1mg Strength (in mg/ Daily)
Treatment Plan	< 1 > of 1 active
Risks	

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.

Date	INR	Dose	Dosing Instructions	Time	DNA	In range
Wed 29/11/2017	4.2	2.50 d	2mg/3mg ALTERNATE DAYS	7 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				
Mon 07/11/2016	2.1	3.00 d				
Fri 07/10/2016	1.9	3.00 d				

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.

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.

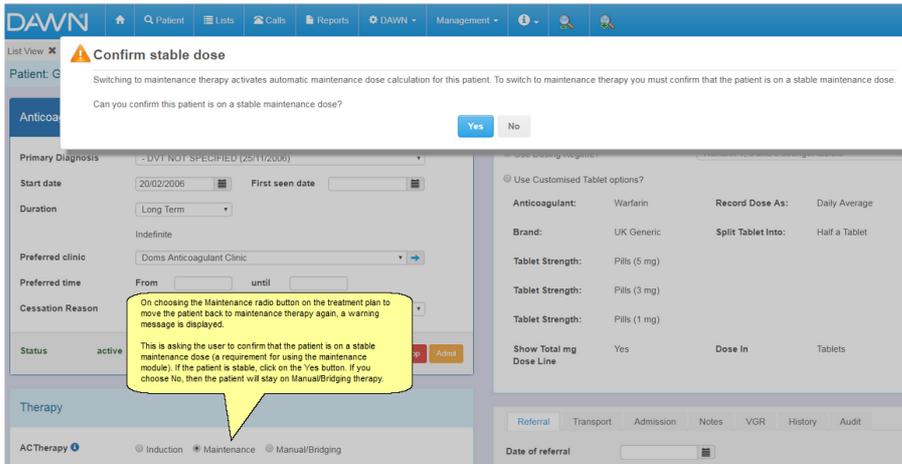
The patient has now been moved to Manual/Bridging therapy. While the patient is on manual/bridging therapy, the healthcare professional must manually dose the patient. To move the patient back onto maintenance therapy once the patient is stable again, change the therapy option within the patient's treatment plan.

Click on the Treatment Plan button to move the patient back to maintenance.

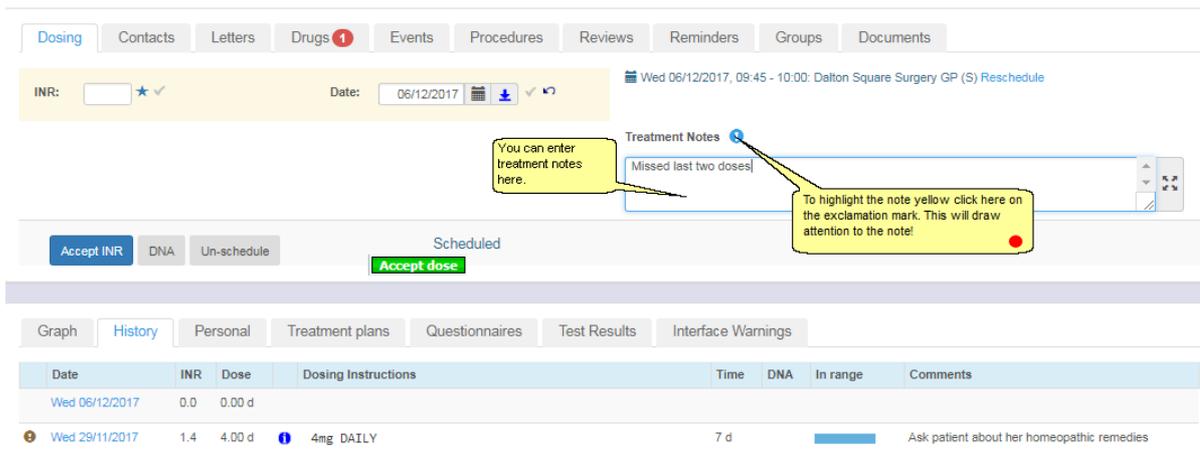
A note can be automatically entered into the treatment notes to explain why the patient has been moved over to manual/bridging therapy. See system settings.

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					

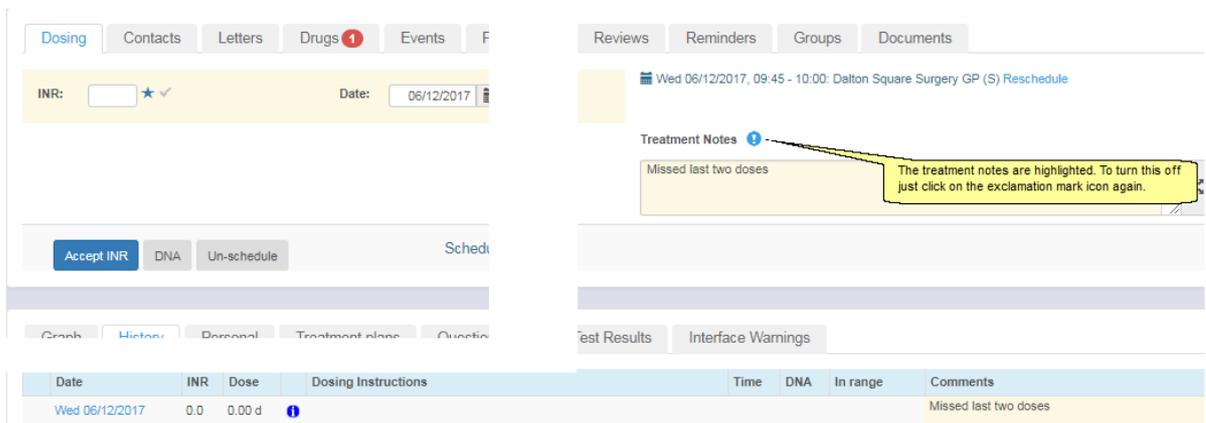
12.10 Switching Patient Back to Maintenance Therapy



12.11 Treatment Notes



12.11.1 Treatment Notes Highlighted



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.

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.

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)**

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
Wed 03/01/2018	2.3	3.00 d	P
			P
Wed 27/12/2017	2.1	3.00 d	P
			P

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

Click on Treatment Plan

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? Warfarin 1, 3 and 5 strength tablets

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

Edit tablet options ●
Edit Tablet Options

12.15.2 Customise the Tablet Options

Patient Tablet Options Settings ✕

Anticoagulant: Warfarin Change the anticoagulant

Brand: UK Generic (Warfarin) Select the brand you use

Dose In: Tablets Show the instructions by number of tablets or mg

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)) If you wish to select more than one tablet strength, choose the largest tablet in the top box and smallest in the bottom box. (Each drop down list only includes tablet strengths smaller than the one in the drop down list above.)

Tablet Strength: (None selected)

Show Total MG Instructions Line: This option determines whether the instructions show the total mg per day.

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.

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

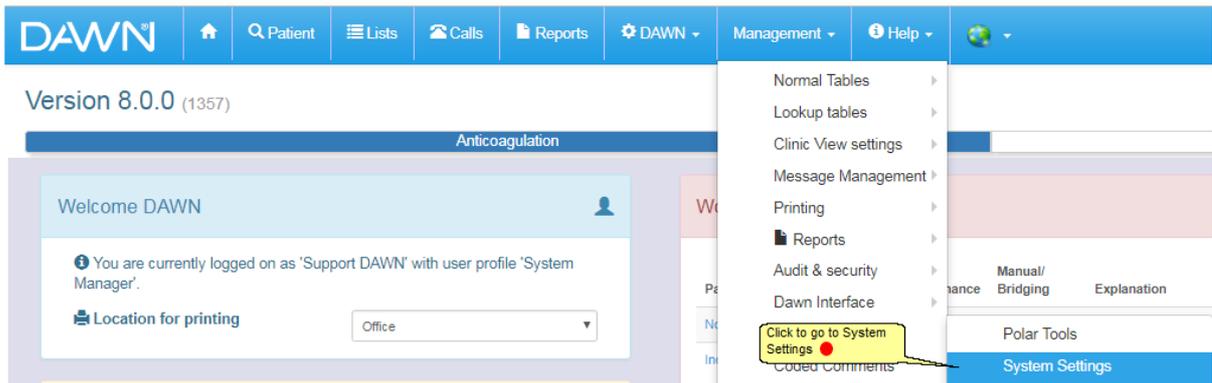
Recording an additional INR when a patient is tested twice on the same day

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

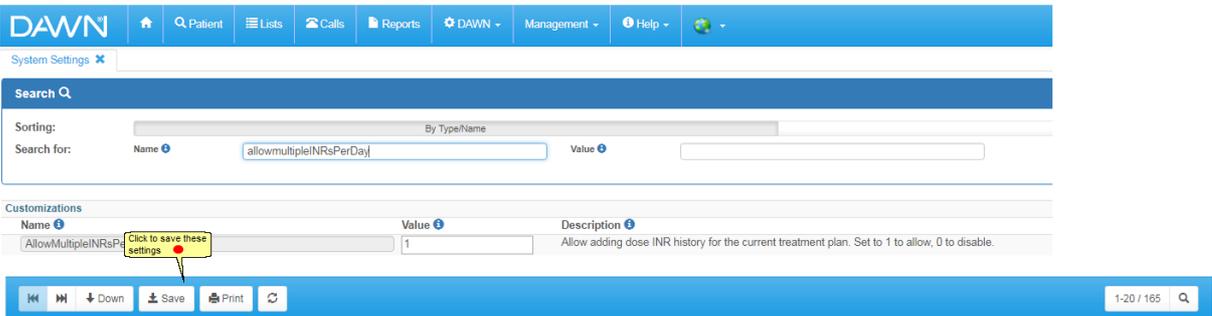
12.16.1 Switch On the Option to Record more than one INR or Dose for a Day

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.

The screenshot shows a clinical software interface for Warfarin dosing. At the top, there are tabs for Dosing, Contacts, Letters, Drugs (with a red notification icon), Events, Procedures, Reviews, and Reminders. The main area displays the current INR as 4.4, labeled as 'High' with a warning icon. The date is 29/01/2018, and the status is 'Not scheduled'. Below this is a table showing the Warfarin dosing schedule:

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)							
Pills (½ mg)	5	4	5	5	5	4	5
Total mg	2.5	2	2.5	2.5	2.5	2	2.5

Below the table, the current dose is 2.36 mg, with a note 'Dose decreased by 21%'. The next dose is scheduled for 05/02/2018, 7 days later. A 'Treatment Notes' section is visible on the right. At the bottom, there are buttons for 'Accept dose', 'New INR/Dose' (highlighted with a red box), 'Tested', and 'No Further Tests'.

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** | 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																				

Click on New INR/Dose

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.

The screenshot shows the 'Dosing' tab selected. The INR input field contains '2.9' and has a star icon and a checkmark. The date is '30/01/2018'. The status is 'Not scheduled'. Below the input fields are buttons for 'Accept INR', 'DNA', and 'Un-schedule'. The 'Accept INR' button is highlighted. Below the buttons are tabs for 'Graph', 'History', 'Personal', 'Treatment plans', 'Questionnaires', 'Test Results', and 'Interface'. The 'History' tab is active, showing a table of INR results and dosing instructions.

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	<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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	2 wk							
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																														

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 set

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	K
Pills (3 mg) <input checked="" type="radio"/>	1	1	1	1	1	1	1	▲
Pills (½ mg) <input type="radio"/>								▼
Total mg	3	3	3	3	3	3	3	↻

Dose: d ✓ No dose change | Next: 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" style="width: 100%; border-collapse: collapse;"> <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) <input checked="" type="radio"/></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) <input type="radio"/></td> <td></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> <td>3</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg) <input checked="" type="radio"/>	1	1	1	1	1	1	1	Pills (½ mg) <input type="radio"/>								Total mg	3	3	3	3	3	3	3
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																												
Pills (3 mg) <input checked="" type="radio"/>	1	1	1	1	1	1	1																												
Pills (½ mg) <input type="radio"/>																																			
Total mg	3	3	3	3	3	3	3																												
	4.3																																		
Wed 03/01/2018	2.3	3.00 d	<table border="1" style="width: 100%; border-collapse: collapse;"> <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) <input checked="" type="radio"/></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) <input type="radio"/></td> <td></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> <td>3</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg) <input checked="" type="radio"/>	1	1	1	1	1	1	1	Pills (½ mg) <input type="radio"/>								Total mg	3	3	3	3	3	3	3
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																												
Pills (3 mg) <input checked="" type="radio"/>	1	1	1	1	1	1	1																												
Pills (½ mg) <input type="radio"/>																																			
Total mg	3	3	3	3	3	3	3																												



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.

HINT

12.16.4. Authorised second INR and dose

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	<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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	4 wk									
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																																
	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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	2 wk									
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																																

12.16.5 Changing an Already Authorised Dose but Retaining a Record of the Original

Example Scenario

You have a 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:

Click to undo

Wed 06/12/2017, 09:00 - 17:00: Doms Anticoagulant Clinic

Treatment Notes

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	Warfarin Pills (3 mg) Pills (1 mg)	2 wk			
Fri 22/09/2017	2.5	1.64 d	Warfarin Pills (3 mg) Pills (1 mg)	8 wk			

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						

• Last 3 INRs are all rising

Treatment Notes i

Dose: d ✓ | No dose change | Next: 📅 | 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	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center; font-size: small;"> <thead> <tr style="background-color: #2c3e50; color: white;"> <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 style="background-color: #2c3e50; color: white;"> <td>Total 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	Pills (3 mg) ●	1	1	1	1	1	1	1	Pills (½ mg) ●								Total mg	3	4 wk								
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																															

12.16.5. 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 Sq

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	1	1	1	1	1	1	1
Pills (½ mg)							
Total mg	3						

Dose: 3.00 d ✓ No dose change Next: 06/02/2018 7 d ✓

Accept dose New INR/Dose Tested No Further Tests

Treatment Notes

- INR changed by > 1.5
- Last 3 INRs are all rising
- Dose Change: 1 OUT OF 1 ABOVE
- HIGH INR: CHECK WITH PATIENT

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	<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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	3	3	3	3	3	3	7 d		
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Total mg	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	<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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	3	3	3	3	3	3	7 d			
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Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																
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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.

The screenshot shows the Dosing tab in the DAWN system. At the top, there are navigation tabs: Dosing, Contacts, Letters, Drugs, Events, Procedures, Reviews, Reminders, Groups, and Documents. Below these, there are input fields for INR (with a star icon) and Date (06/12/2017). A 'Click to undo' button is highlighted with a red circle. To the right, there is a calendar icon and a note: 'Wed 06/12/2017, 09:00 - 17:00: Doms Anticoagulant Clinic'. Below the input fields, there are buttons for 'Accept INR', 'DNA', and 'Un-schedule', and a 'Scheduled' button. Below this, there is a 'Treatment Notes' section with a blue question mark icon. At the bottom, there is a 'History' tab selected, showing a table of treatment records.

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	Warfarin Pills (3 mg) Pills (1 mg)	Sun Mon Tue Wed Thu Fri Sat 2 1½ 1½ 2 1½ 1½ 1½	2 wk	■ ■	
Fri 22/09/2017	2.5	1.64 d	Warfarin Pills (3 mg) Pills (1 mg)	Sun Mon Tue Wed Thu Fri Sat 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](#) | [Letters](#) | [Drugs](#) | [Events](#) | [Procedures](#) | [Reviews](#) | [Reminders](#) | [Groups](#) | [Documents](#)

INR: ★ ✓ Date: 📅 ✓ ↶

[Wed 06/12/2017, 09:00 - 17:00: Doms Anticoagulant Clinic Reschedule](#)

Treatment Notes ⓘ

[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	Warfarin Pills (3 mg) Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 1½ 1 1½ 1½ 1 1½				
ⓘ Fri 22/09/2017	2.5	1.64 d	Warfarin Pills (3 mg) Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 2 1½ 1½ 2 1½ 1½	8 wk		<div style="width: 50%; background-color: #4CAF50;"></div>	
ⓘ Fri 30/06/2017	1.6	1.64 d	Warfarin Pills (3 mg) Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 2 1½ 1½ 2 1½ 1½	7 d		<div style="width: 50%; background-color: #4CAF50;"></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

Dose: d ✓ No dose change Next: 8 wk ✓

• Last 3 INRs are all rising

Treatment Notes ?

Accept dose 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%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th style="background-color: #2c3e50; color: white;">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		
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Pills (1 mg) ●	2	1½	1½	2	1½	1½	1½																							
	4.2	1.36 d	<table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th style="background-color: #2c3e50; color: white;">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](#) | [Events](#) | [Procedures](#) | [Reviews](#) | [Re](#)

INR: 2.6 In Range ✓ **Date:** 06/12/2017 ✓ ↻ Wed 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 d ⚠ No dose change **Next** 31/01/2018 8 wk ✓

Last 3 INR

Treatment Notes

Authorise
DoseSet
No Further Tests

[Graph](#) | [History](#) | [Personal](#) | [Treatment plans](#) | [Questionnaires](#) | [Test Results](#)

Date	INR	Dose	Dosing Instructions	Tim																								
Wed 06/12/2017	2.6	1.64 d	<table border="1" style="width: 100%; border-collapse: collapse;"> <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
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Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																					
Pills (3 mg)																												
Pills (1 mg)	1½	1	1½	1½	1½	1	1½																					
Fri 22/09/2017	2.5	1.64 d	<table border="1" style="width: 100%; border-collapse: collapse;"> <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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)								Pills (1 mg)								8 wk
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																					
Pills (3 mg)																												
Pills (1 mg)																												

12.16.6. Undo the authorised dose and INR

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						

Dose: d ✓ | No dose change | Next: | ✓

| | | No Further Tests

Click New INR/Dose

• Last 3 INRs are all rising

Treatment Notes ⓘ

| | | | | |

Date	INR	Dose	Dosing Instructions	Time	DNA	In ra																																
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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	4 wk		■						
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																															

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.

| Click preserve INR and Dose and then click OK |

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)							
Total mg	3	3	3	3	3	3	3

Dose: 3.00 No dose change | Next: 27/2/2018 4 wk ✓ Accept the 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 ra
Tue 30/01/2018	2.7	3.00 d	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	4 wk		
	4.2	2.43 d	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (3 mg) Pills (½ mg) 5 5 5 4 5 5 5 Total mg 2.5 2.5 2.5 2 2.5 2.5 2.5			
Wed 03/01/2018	2.3	3.00 d	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	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

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Cor																																
Tue 27/02/2018	0.0	0.00 d																																					
Tue 30/01/2018	2.7	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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	3	3	3	3	3	3	3	4 wk			
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																																
	4.2	2.43 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 (½ mg)</td> <td>5</td> <td>5</td> <td>5</td> <td>4</td> <td>5</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> <td>2.5</td> </tr> </tbody> </table>	Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Pills (3 mg)								Pills (½ mg)	5	5	5	4	5	5	5	Total mg	2.5	2.5	2.5	2	2.5	2.5	2.5				
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																
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Total mg	2.5	2.5	2.5	2	2.5	2.5	2.5																																
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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (½ mg)								Total mg	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																																
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Total mg	3	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.

Date	INR	Dose	Dosing Instructions
Mon 25/12/2017	0.0	0.00 d	
Mon 18/12/2017	N/A	3.00 d	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)

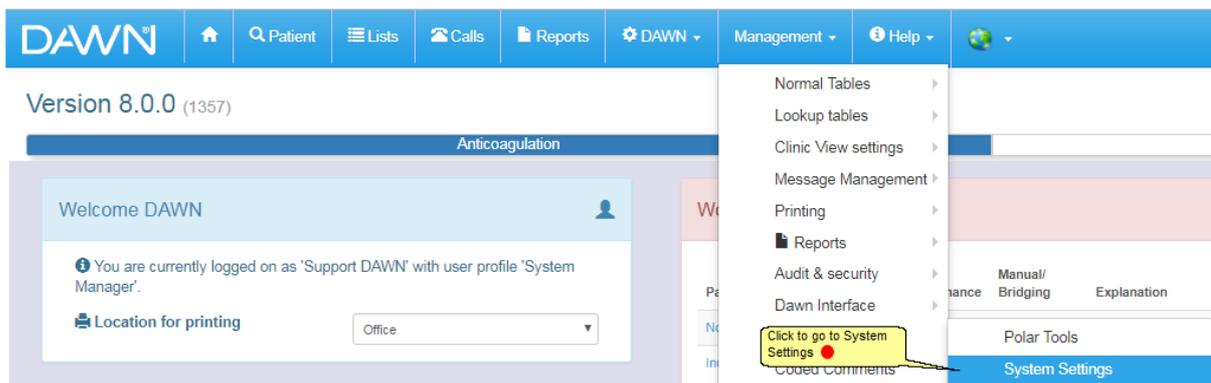
12.17.1 Switch On the Option to dose without an INR

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

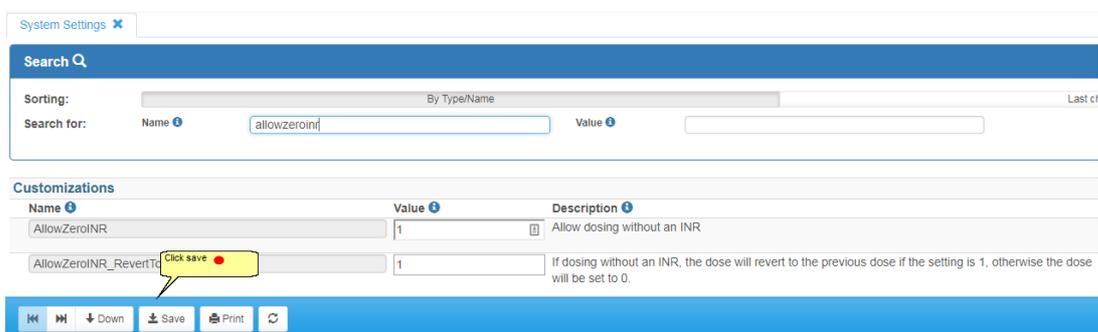
circumstances have changed - perhaps they have started taking a concurrent medication that interacts with warfarin - and you suggest a dose change to compensate.

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 in a menu. Below the menu, there are fields for 'INR:' (which is blank) and 'Date:' (06/12/2017). A yellow callout box points to the INR field with the text: 'Leaving the INR field blank, click on accept INR'. Below the fields, there are buttons for 'Accept INR', 'DNA', and 'Un-schedule'. The status 'Scheduled' is displayed on the right. A 'Treatment Notes' section is visible on the right side.

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 warning, there is an 'OK' button. The background shows the 'Dosing' interface with a red question mark next to the INR field. A yellow callout box 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 highlighted in blue.

(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 ✓ ↶

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3	3	3	3	3	3	3

Dose: 3.00 d ✓ No dose change Next: 25/12/2017 7 d ✓

Accept dose (orange) | 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 ✓ ↶

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg	3	3	3	3	3	3	3

Dose: 0.00 d ? (dose zero) Next: 25/12/2017 7 d ✓

Accept dose (red) | New INR/Dose | Tested | No Further Tests

12.17.7 Dosed without an INR

[Dosing](#) | [Contacts](#) | [Letters](#) | [Drugs 1](#) | [Events](#) | [Procedures](#) | [Re...](#)

INR: ★ ✓ Date: 📅 ⬇️ ✓ ↶

[Accept INR](#) | [DNA](#) | [Un-schedule](#) | [Scheduled](#)

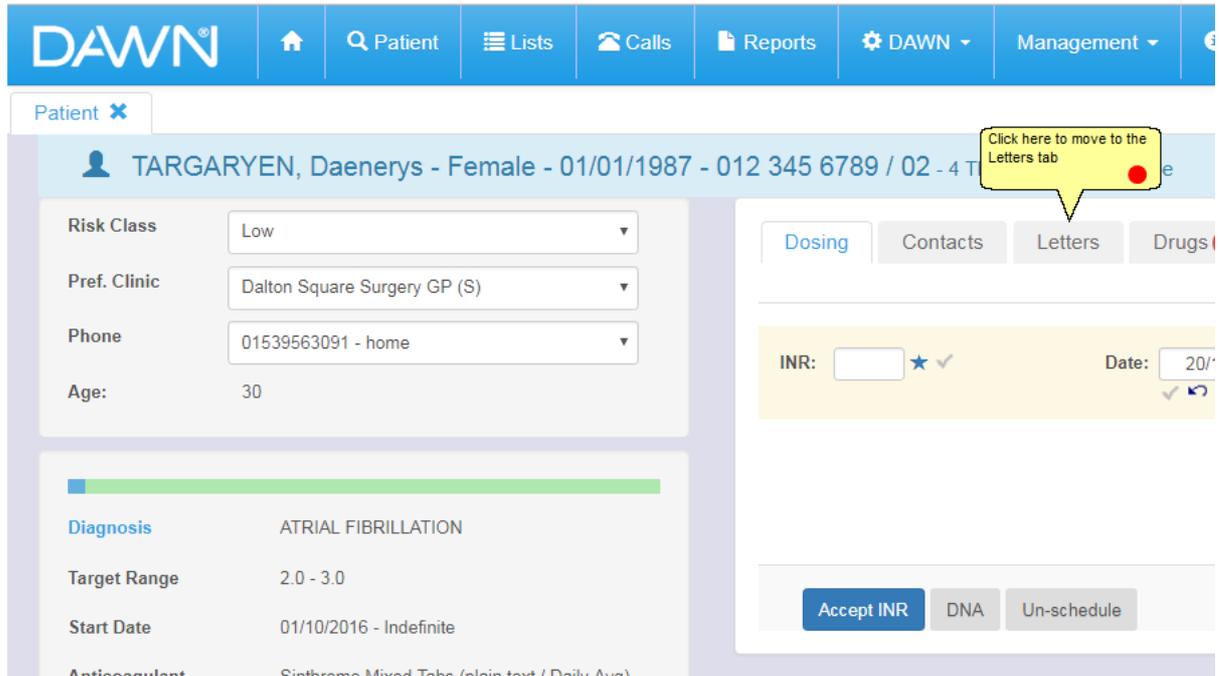
[Graph](#) | [History](#) | [Personal](#) | [Treatment plans](#) | [Questionnaires](#) | [Test R...](#)

Date	INR	Dose	Dosing Instructions																
Mon 25/12/2017	0.0	0.00 d																	
🚩 Mon 18/12/2017	N/A	3.00 d	<table border="1"> <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></td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </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 displays the DAWN patient interface. At the top, a blue navigation bar contains the DAWN logo and menu items: Home, Patient, Lists, Calls, Reports, DAWN (with a gear icon), and Management. Below this, a patient selection bar shows 'Patient' with a close icon and a patient profile for 'TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 T'. A yellow callout bubble points to a red dot on the 'Letters' tab, with the text 'Click here to move to the Letters tab'. The main content area is divided into two columns. The left column contains patient details: Risk Class (Low), Pref. Clinic (Dalton Square Surgery GP (S)), Phone (01539563091 - home), and Age (30). Below this is a green progress bar and a 'Diagnosis' section with 'ATRIAL FIBRILLATION', 'Target Range' (2.0 - 3.0), 'Start Date' (01/10/2016 - Indefinite), and 'Anticoagulant' (Sinthrome Mixed Tabs (plain text / Daily Avn)). The right column features a 'Dosing' tab, a 'Letters' tab (which is highlighted), and a 'Drugs' tab. Below the tabs is an 'INR' field with a star icon and a checkmark, and a 'Date' field set to '20/'. At the bottom of the right column are three buttons: '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

Messages List:

Description	Created
Dosing Instruction	29/11/2017 17:00

Printers: Televox, Bookprinter (Next label position)

Options: Send reminders, Send dosing instructions

Annotations:

- 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

Navigation: Dosing Contacts **Letters** Drugs 1 Rem

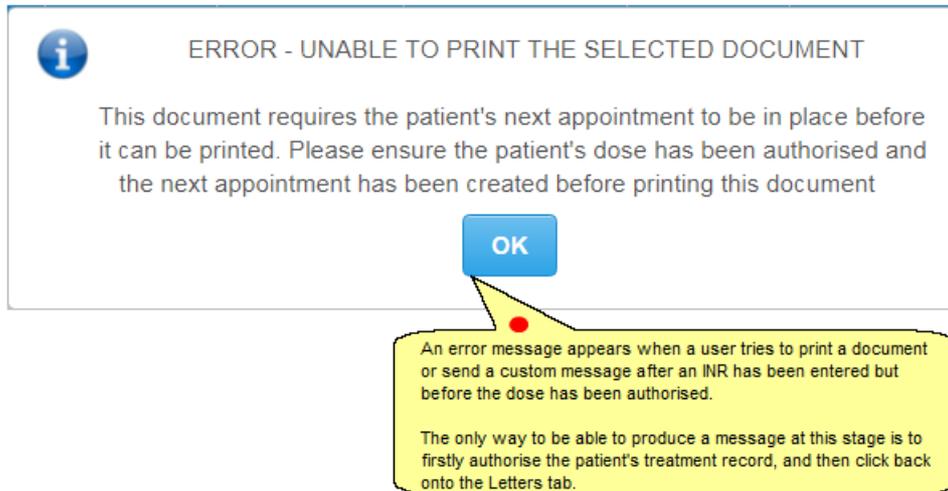
Warning: You may be unable to create some letters and messages until the next appointment has been created

Messages List:

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

Annotation: 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 ✓ ↻ (Scheduling info not available)

Please confirm the Recommended Next Appointment-date and press the DNA-button again.

Next 12/01/2018 7½ wk ✓

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:

Tue 16/01/2018, 09:00 - 09:15: Outre:

Treatment Notes ⓘ

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	<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 (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>Total mg</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> </tr> </tbody> </table>	Warfarin	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)								Total mg	3½	12 wk							
Warfarin	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																																						
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Total mg	3½	3½	3½	3½	3½	3½	3½																																						
! Tue 25/07/2017	2.4	3.50 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 (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>Total mg</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> <td>3½</td> </tr> </tbody> </table>	Warfarin	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)								Total mg	3½	12 wk							
Warfarin	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)																																													
Total mg	3½	3½	3½	3½	3½	3½	3½																																						

Click again on 'DNA' button to confirm the DNA.

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

Patient: GREEN, Gemma - Female - 25/06/1935 - 8663828520 - 17 HASLEWOOD DRIVE, MIDDLESEX - BANK ROAD HEALTH CENTRE, Dr C Cronin

Medication: Warfarin 1, 3 and 5 strength tablets

History Table:

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	Warfarin Sun Mon Tue Wed Thu Fri Sat 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) Total mg 3 3/2 3 3/2 3 3/2 3 3/2	12 wk	

14.3 Patient Non-Attending

Patient: 5 years old

Medication: Warfarin 1, 3 and 5 strength tablets

Status: NonAttending

History Table:

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	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 2 2 2 2 2 2 Pills (3 mg) Pills (5 mg) Total mg 2 2 2 2 2 2	8 wk	

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.

The screenshot shows the DAWN software interface with a patient list. The top navigation bar includes 'Patient', 'Lists', 'Calls', 'Reports', 'DAWN', and 'Management'. The main area displays a list of patients with columns for 'First Priority Reason', 'Unit No', 'Name', 'Due', 'TIR', 'DNACount', and 'Clinic'. Callouts provide instructions: '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.', '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', and 'Reschedule'.

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

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



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

The screenshot shows the 'Filter Date' dropdown menu in the DAWN software. The menu options include: '> 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', and '3 or more previous DNAs'. A callout points to the '! Test date advanced but no free slot in diary' option, stating: 'Select this filter and if any patients appear on the list, schedule the appointments manually'. The main area shows a message: 'There are no records to display'.

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 (IdentKey) 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 ⚠

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

Outbound Interface Status

Stopped

Note: A callout bubble points to the '5' in the 'Waiting to be sent' row, stating: "There are 5 messages waiting to be sent"

front screen in DAWN.

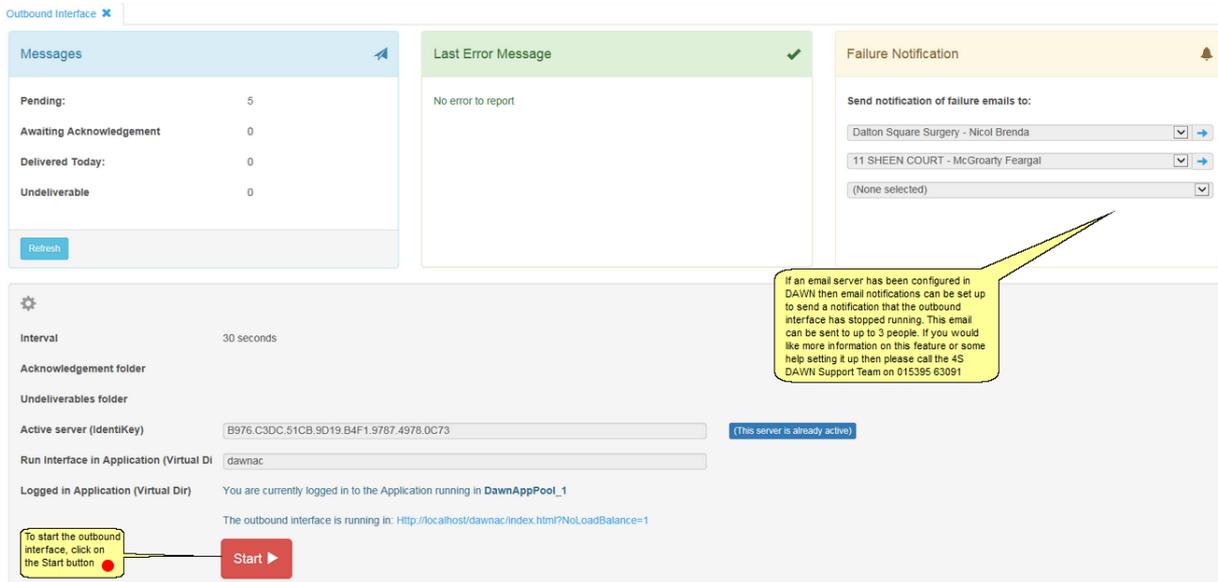
15.1.1 Starting the Outbound Interface

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', 'Patient', 'Lists', 'Calls', 'Reports', 'DAWN', 'Management', and 'Help'. The main content area displays 'Version 8.0.0 (1357)' and 'Anticoagulation'. A 'Worklist' section shows 'Patients with No INR Today' and 'Missed Test' counts (2 and 187). The 'Management' dropdown menu is open, listing options such as 'Normal Tables', 'Lookup tables', 'Clinic View settings', 'Message Management', 'Printing', 'Reports', 'Audit & security', 'Dawn Interface', and 'Outbound Interface'. A callout bubble points to 'Outbound Interface' with the text: 'Click to select the outbound interface'.

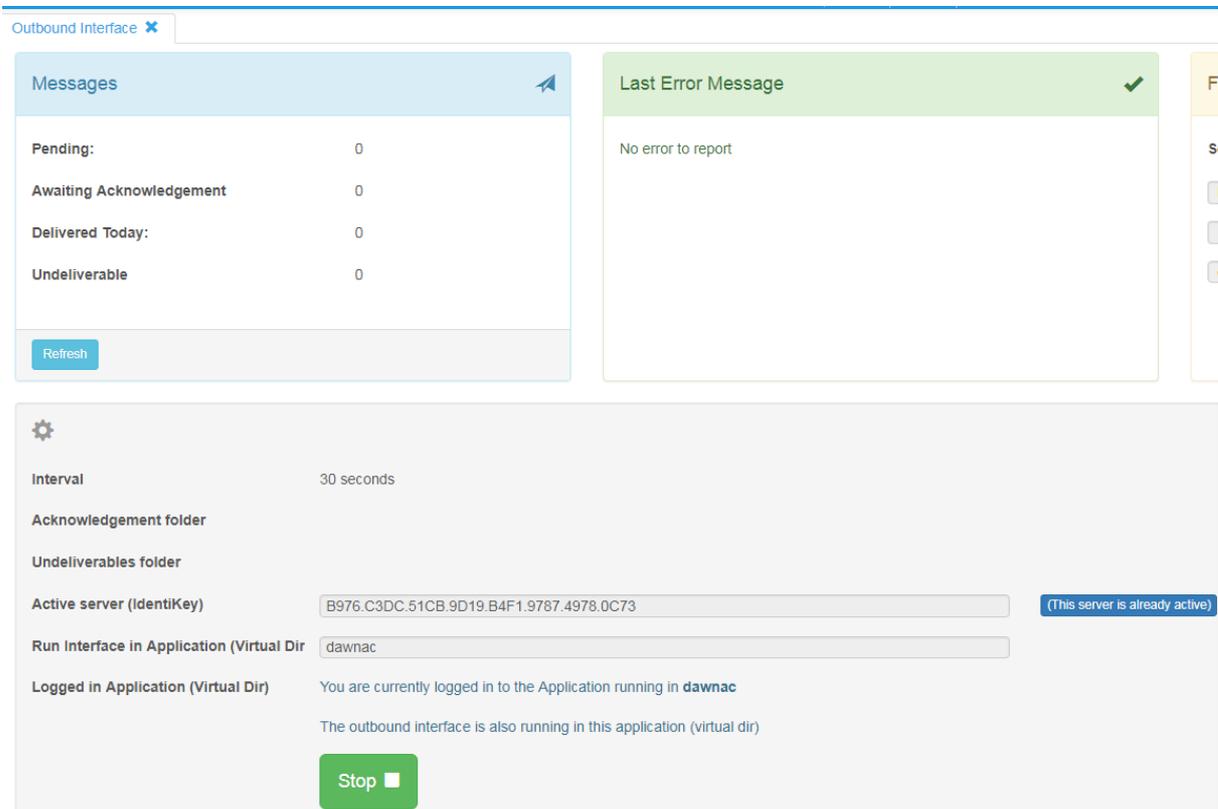
Once the menu structure is open (as in the example above), click on the OutboundInterface option.

15.1.2 Outbound Interface Screen



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



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:

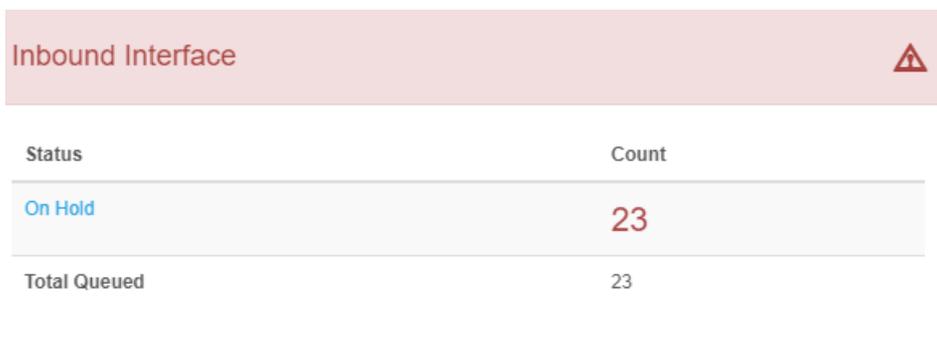
- Flat files
- PDF files

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.



Status	Count
On Hold	23
Total Queued	23

15.2.1 Viewing Unmatched Interface Results

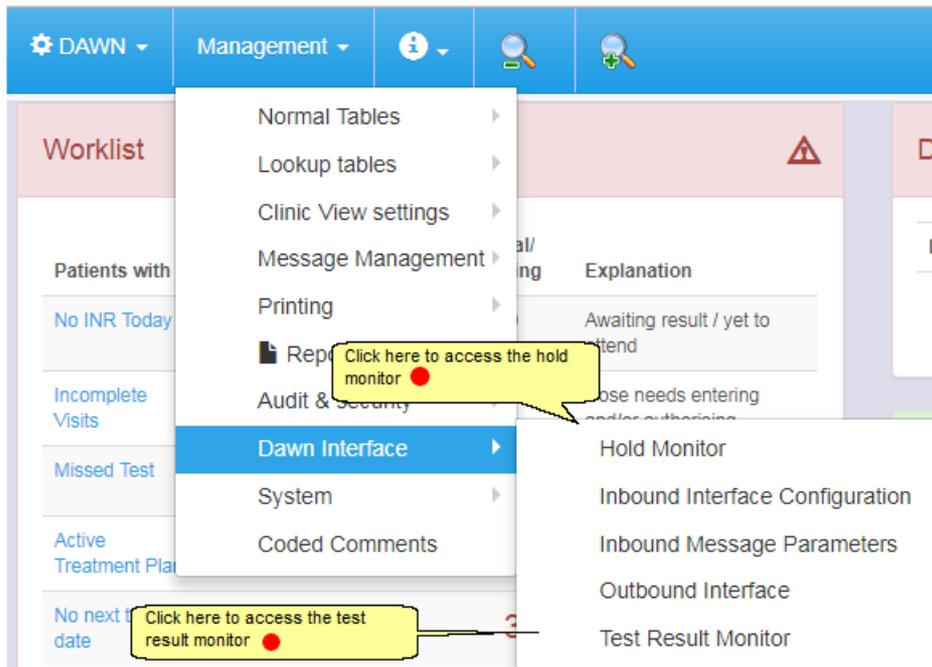
Your DAWN system may be linked to one or several other systems using interfaces.

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 Unit No | 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	Result 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 Barr

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 buttons: '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 is a table of messages with the following columns: Patient, Message Type, Inserted Date, Last Name, First Name, Unit No, National No, Hold Reason, DoB, and Re: Dat.

Patient	Message Type	Inserted Date	Last Name	First Name	Unit No	National No	Hold Reason	DoB	Re: Dat
WIL	ORU^RI	19/01/2	WILLI	Lisa	C72!		Existing result for same day	19/	20
CA	ORU^RI	19/01/2	CAMF	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



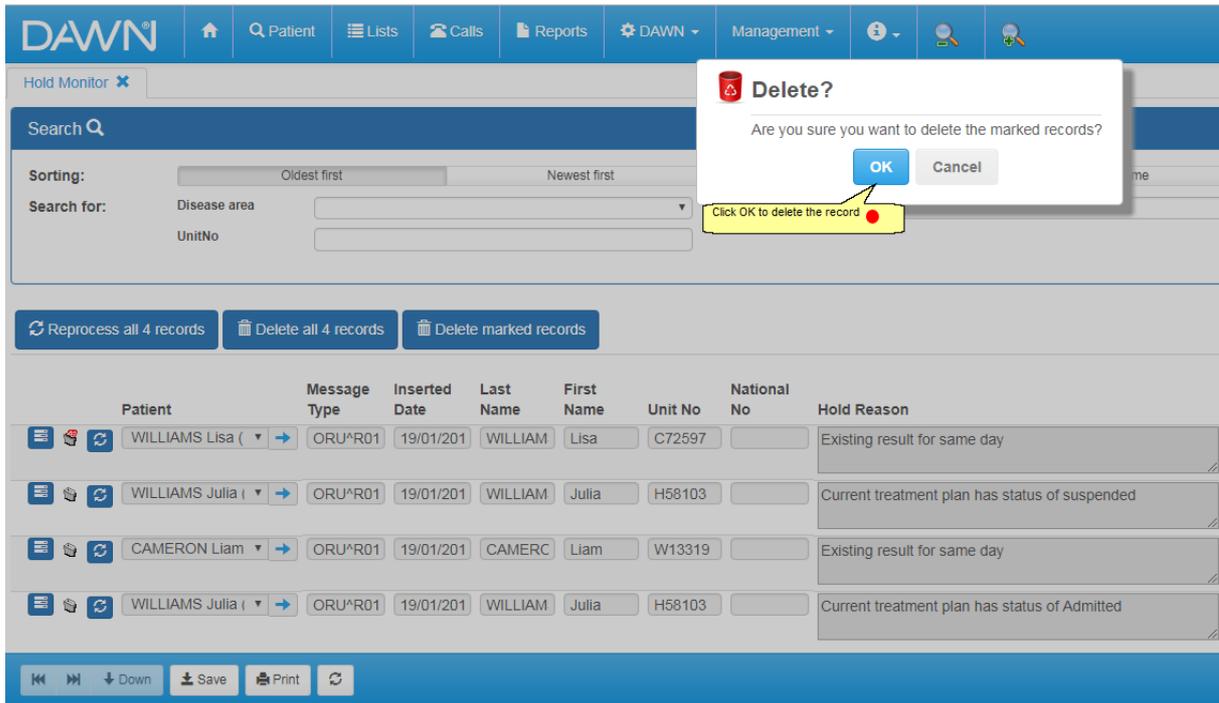






15.2.1.5 Deleting Messages From The Hold Monitor

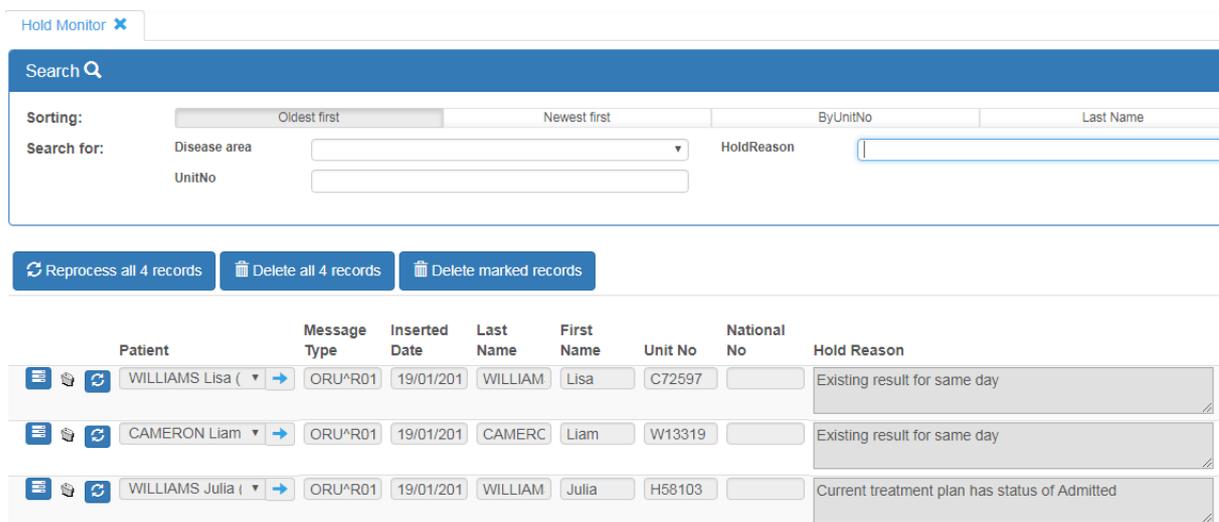
Having reviewed the Hold Monitor messages, it may be that no further action is necessary and the messages can simply be deleted from the Hold Monitor. To delete individual messages or a selection of messages, click on the trash can next to the message(s) to be deleted and then click on the 'Delete marked 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.



HINT

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 a web-based interface for monitoring test results. At the top, there is a search bar with a callout: "You can search for a particular test result record here". Below the search bar are sorting options (Oldest first, Newest first, By Unit No, Last Name, By Message Type, By Hold Reason) and search filters (Disease area, UnitNo, HoldReason, LastName). A "Search" button is on the right. Below the search area are buttons for "Reprocess all 6 records", "Delete all 6 records", and "Delete marked records". The main part of the screen is a table with columns: Message Type, Inserted Date, Last Name, First Name, Title, Sex, DoB, Unit No, National No, Prior Unit No, Hold Reason, Sample ID, Result TestName, Result Numeric, Result Character, Result Status, Result Dateime, and Patient. The table contains six rows of data, each with a different hold reason. A callout points to the "Reprocess" button: "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." Another callout points to the "Dateime" column: "The time that the result was received or the test was taken is displayed here".

Message Type	Inserted Date	Last Name	First Name	Title	Sex	DoB	Unit No	National No	Prior Unit No	Hold Reason	Sample ID	Result TestName	Result Numeric	Result Character	Result Status	Result Dateime	Patient
ORLUPRO	16/05/20	Flintston	Fred			01/01/19	TEST02	4403664		Result deleted in lab system. Please investigate and update DAWN record if necessary.	C341C	RBC	4.09	4.09	D	201705	
ORLUPRO	16/05/20	Flintston	Fred			01/01/19	TEST02	4403664		Result deleted in lab system. Please investigate and update DAWN record if necessary.	C341C	HGRRR	114	114	D	201705	
ORLUPRO	16/05/20	Flintston	Fred			01/01/19	TEST02	4403664		Failed to add test result - You cannot enter a result for a datetime that lies in the future.	C341C	CB_TCK	114	114	F	201705	
ORLUPRO	16/05/20	Flintston	Fred			01/01/19	TEST02	4403664		Patient already flagged as deceased on DAWN. Manual resolution required	C341C	CB_TIGI	114	114	F	201705	
ORLUPRO	16/05/20	Flintston	Fred			01/01/19	TEST02	4403664		No test result received	C341C	WBC			F	201705	
ORLUPRO	16/05/20	Flintston	Fred			01/01/19	TEST02	4403664		No test result received	C341C	WBC			F	201705	

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.

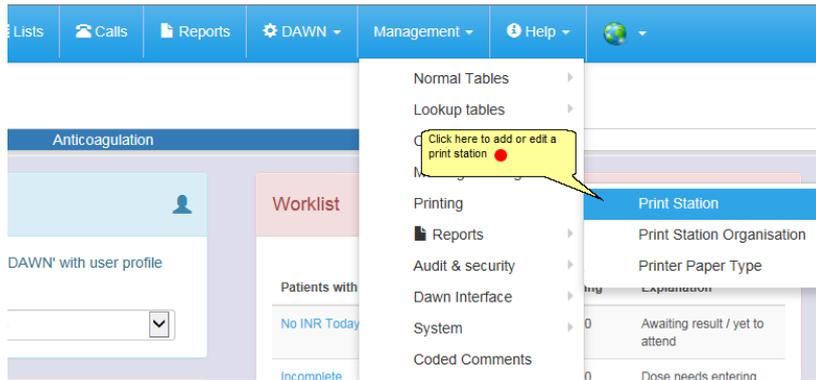
These messages are printed, faxed or emailed by a separate application called DAWNMailer, which connects to a specific Print Station and sends out all the pending messages to the right location.

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:

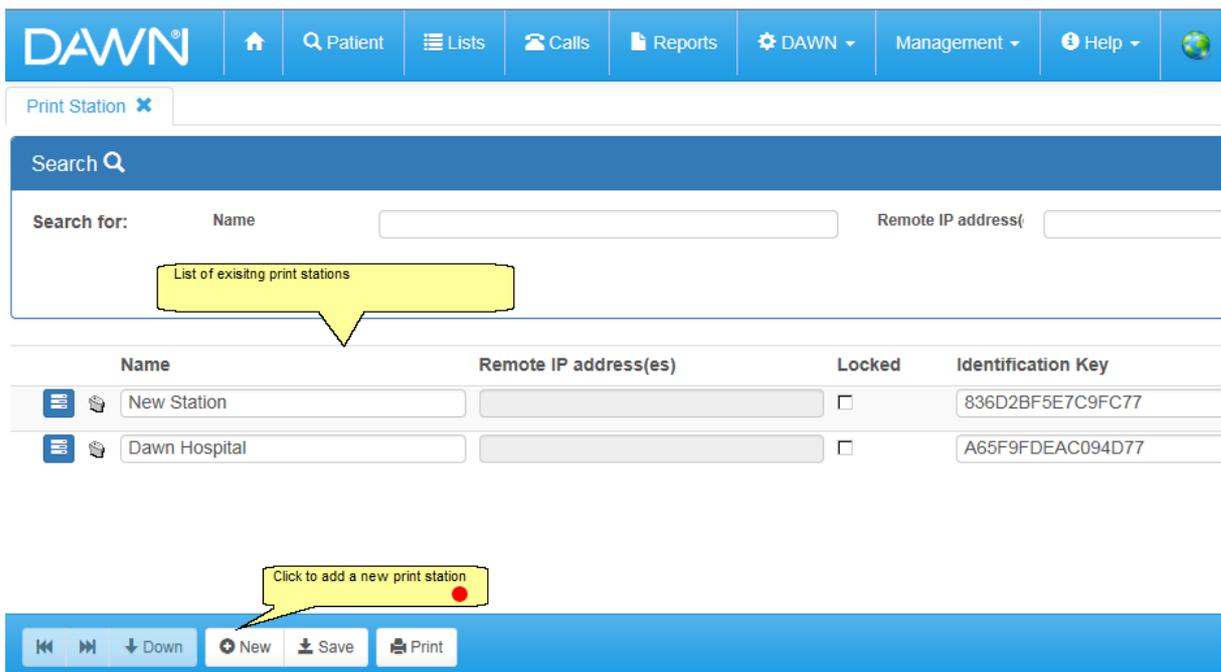
1. Setting up a print station
2. Setting up DAWNMailer to process messages for a print station
3. Setting up a new paper type
4. Mapping printers with PrinterPaperType
5. Setting up a new printing location
6. Selecting paper type in message template
7. Selecting paper type in message event

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 Search 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

Supported organisations

Add a new record Printers

There are no items to display

Leave blank. This list is automatically populated by DAWN/Tasker

Home Back Forward New Delete Save List Print

16.1.4 Choose which organisations can use this print station

DAWN®

Print Station ✕ Print Station Organisation ✕

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

OK Cancel

Select the organisations to use this print station

Click OK

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

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 Patient Lists Calls Reports DAWN Management Help

Printer Paper Type ✕

	Name
▶	A4 Blank
	A4 Colour
	A4 Plain
	Economailer1
	Template?

Name: A4 Blank

Order Nr: 0

In Use:

There are no items to display

Add new paper type

Navigation: ⏪ ⏩ 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

Lists Calls Reports DAWN Management Help

Anticoagulation

Worklist

DAWN with user profile

Patients with

No INR Today

Incomplete

Normal Tables

Lookup tables

Click here to add or edit a print station

Printing

Print Station

Print Station Organisation

Printer Paper Type

Reports

Audit & security

Dawn Interface

System

Coded Comments

Awaiting result / yet to attend

Dose needs entering

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	
<input type="text" value="New Station"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text" value="836D2BF5E7C9FC77"/>	<input type="button" value="Create random key"/>
<input type="text" value="Dawn Hospital"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text" value="A65F9FDEAC094D77"/>	<input type="button" value="Create random key"/>
<input type="text" value="New"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text" value="C44E5F26777211AD"/>	<input type="button" value="Create random key"/>

16.4.2 List of printers

Print Station ✕

Name

Remote IP address(es)

Locked

Identification Key

Notes

Return Email

[Supported organisations](#)

Organisation	Return Email
<input type="text" value="Dawn Hospital"/>	
<input type="text" value="Dalton Square Surgery"/>	

[Printers](#)

Name

- HP Officejet 6000 E609a Series
- \\MM-DC-01\HP **Select a printer to map**
- \\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

The screenshot shows the DAWN software interface for configuring printers. At the top, there is a navigation bar with 'DAWN' logo and icons for Patient, Lists, Calls, and Reports. Below this, there are tabs for 'Print Station' and 'Printer'. A table lists several printers with their network paths. Below the table, a form allows editing a printer record. The form fields include:

- Name:** \\MM-DC-01\Brother MFC-9460CDN Printer
- Device Name:** \\MM-DC-01\Brother MFC-9460CDN Printer
- Notes:** (Empty text area)
- Paper Type:** (None selected) - A callout 'Select a paper type' points to this dropdown.
- Order Nr:** 10 - A callout 'Set the order of this printer' points to this field.
- In Use:**

 Below the form is a section for 'PrinterLocation' with an 'Add a new record' button. A callout 'Click here to add a new location' points to this button. Below the table, there is a message 'There are no items to display' and a 'Click to save the record' callout pointing to the 'Add a new record' button. At the bottom, there is a navigation bar with icons for New, Delete, Save, List, and Print.

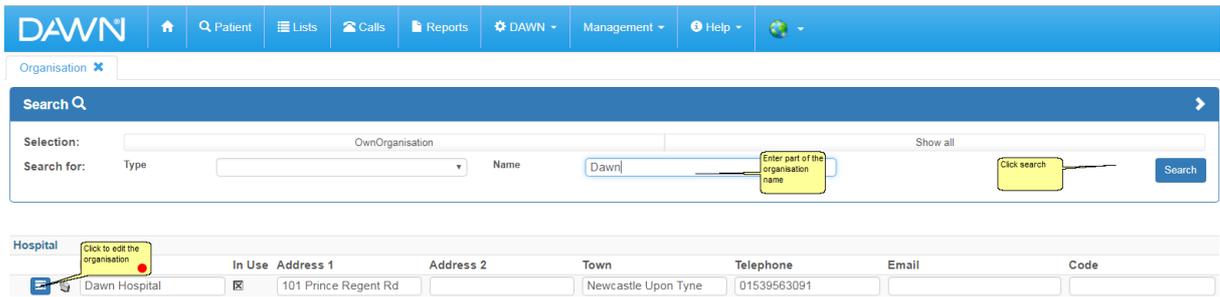
16.5 Adding/Editing Printing Locations

The screenshot shows the DAWN software interface with the 'Management' menu open. The menu items are:

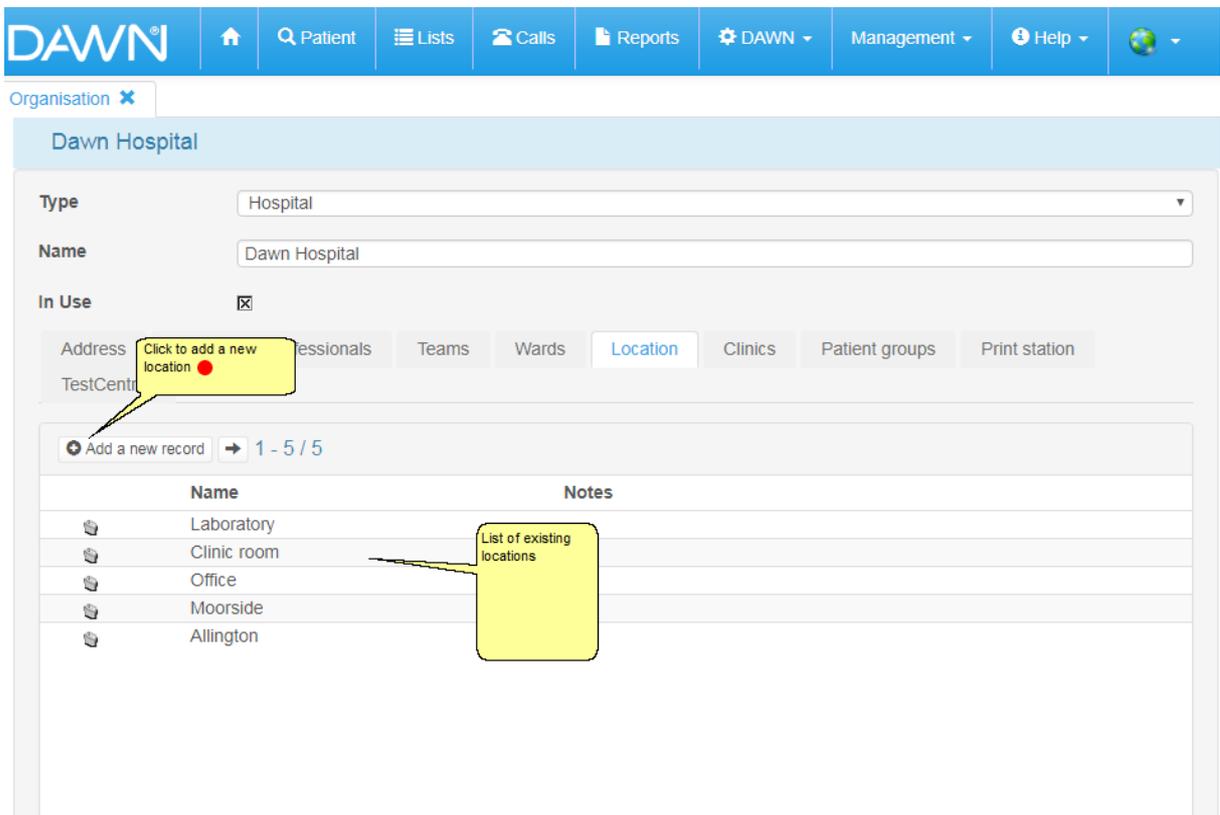
- Normal Tables
- Lookup tables
- Clinic View settings
- Message Management
- Printing
- Reports
- Audit & security
- Clinic
- Clinic-diary
- General Lookup Category
- HCPProfessional
- Health Authority
- LoginLog
- Organisation (highlighted)

 A callout 'Click to find the organisation' points to the 'Organisation' option. The background shows the 'Anticoagulation' section with a 'Welcome DAWN' message and a 'Worklist' section.

16.5.1 Search for the organisation



16.5.2 Select the Location tab



16.5.3 Add a new location

DAWN®

Location ✕

Organisation: Dawn Hospital > Location: (New record)

Name

Notes

Order Nr

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

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

Worklist

Patients with

No INR Today

Incomplete V

Management

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

Click to add or edit a message template paper type

- Message Template
- Message Event
- Timed Message Template
- Timed Message

0 Awaiting result / yet to attend

0 Dose needs entering

16.6.1.1 List of message templates

The screenshot displays the DAWN Message Template management interface. At the top, there is a navigation bar with the DAWN logo and several menu items: Home, Patient, Lists, Calls, Reports, DAWN (with a dropdown arrow), and Management (with a dropdown arrow). Below the navigation bar, there is a search bar labeled 'Message Template' with a close button (X). A search bar with a magnifying glass icon is also present. Below the search bar, there is a 'Search for:' section with a 'Name' label and an input field, and a 'Description Template' label. A yellow callout box with a red dot points to the first row of the table, containing the text 'Click here to set the paper type for this message'. The table has two columns: 'Name' and 'Description'. The first row is highlighted in blue.

Name	Description
Annual Review Letter (to GP) [DM]	Annual
Dosing Instruction examples	Dosing
Example Addresses	Ownin
Annual Review Letter (to referring physician)	Annual
Annual Review Letter (to referring physician) [DM]	Annual
Annual Review Letter (to GP)	Annual
[**Content**] Annual Review Letter Text	
Due To Stop Request (to referring Physician)	Due To
Due To Stop Request (to GP)	Due To
Due To Stop Request (to referring Physician) (DM)	Due To
Due To Stop Request (to GP) (DM)	Due To
[**Content**] Due To Stop Confirmation Text	
Non Attendance Letter (cc referring physician #3)	Non A
Non Attendance Letter (cc referring phys #3)[DM]	Non A
Non Attendance Letter (cc GP #3)	Non A

here.

16.6.1.2 Adding/Editing a message template paper type

The screenshot shows the 'Message Event' form in the DAWN system. The form includes the following fields:

- Caption:** Dose letter as PDF
- 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:** 0

Callouts in the image indicate:

- "Select the paper type" pointing to the Paper Type dropdown menu.
- "Click to save the message event paper type" pointing to the Save button in the bottom toolbar.

The bottom toolbar contains buttons for: New, Delete, Save, List, and Print.

16.6.2 Selecting Paper Type in Message Event

The screenshot shows the DAWN system interface with the 'Management' menu open. The menu items are:

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

The 'Message Management' sub-menu is open, showing the following options:

- Message Template
- Message Event** (highlighted)
- Timed Message Template
- Timed Message

A callout points to the 'Message Event' option with the text: "Click here to add or edit a message event paper type".

16.6.2.1 List of message events

Message Event ✕

Search

Search for: Caption Event Type Template

Choose a message event

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
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 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 type="checkbox"/>	220
PAS update - activate	TreatmentPlan_OnActivate	Outbound ADT^A01 or A03 Status Update Message	<input type="checkbox"/>	230
PAS Update - inactivate (on deceased)	Patient_OnPatientDeceased	Outbound ADT^A01 or A03 Status Update Message	<input type="checkbox"/>	240

16.6.2.2 Adding/Editing a message event paper type

DAWN ⌂ 🔍 Patient ☰ Lists 📞 Calls 📄 Reports 🌐

Message Event ✕

Caption

Event Type

Template

Patient message

Next Of Kin message

GP message

Consultant message

HC Profs message

Keep informed level

HC Professional Type

In Use

Paper Type **Select the paper type**

Order No

Click here to save this message event paper type

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.

Description	Created
Consultant Referral Request	18/12/2017 13:42
Dosing Instruction	18/12/2017 13:26

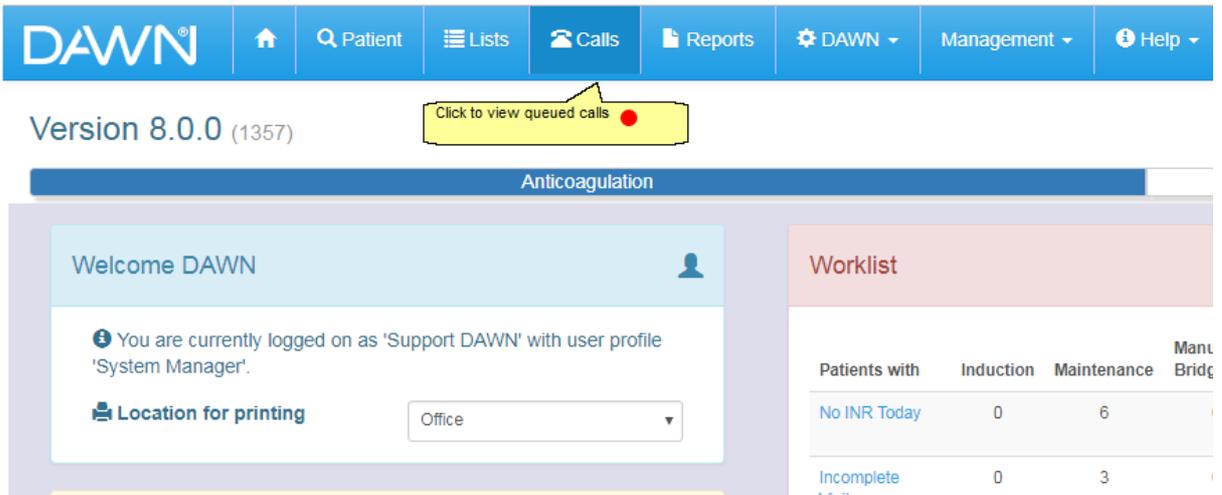
Some messages can be triggered manually from the DAWN patient record via the Letters tab. The user can select from the 'Direct print' options to print to local printers or use the 'Custom message' menu to send a print to a remote printer or send a phone call to the Message Center queue of calls.

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

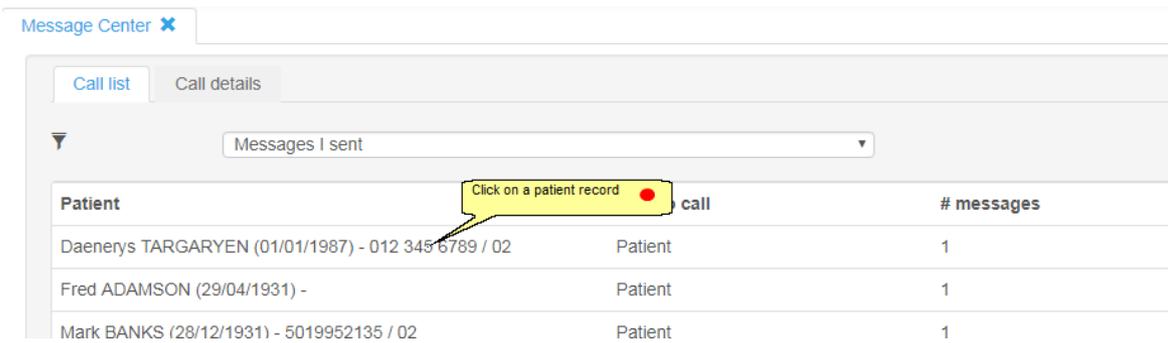
17.1 Queuing phone calls - Message Center

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**'.



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.



17.1.2 View the message

The screenshot shows a user interface for viewing a patient's message. At the top, there are tabs for 'Call list' and 'Call details'. Below this is a patient information section with a 'Patient' icon and a 'Go to Patient Record' button. The patient's details are as follows:

Name TARGARYEN, Daenerys
NHS Number 012 345 6789 / 02
Address
Home phone 01539563091
Mobile phone 07527113321

Below the patient information is a section titled 'Messages for Daenerys TARGARYEN'. It contains a table with the following columns: 'Sent at', 'Patient/message', 'Status', and 'Sent written?'.

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"/>

At the bottom of the message list, there are navigation controls (back, forward, 1/2) and a 'Dosing Instruction' section. The message content is 'Anticoagulation Miss Daenerys TARGARYEN'. Below the message, there are several action buttons: 'Success', 'No answer', and 'Undeliverable'. A 'Postpone' dropdown menu is set to '15 minutes', and a 'Send written' button is also present.

Yellow callout boxes provide instructions: 'Click here to go to the patient record' points to the 'Go to Patient Record' button; 'Click here to mark the call a success' points to the 'Success' button; 'Click here to mark the call as undeliverable' points to the 'Undeliverable' button; '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' points to the 'No answer' button; and 'Scroll here to see the full message' points to the message content area.

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 a patient record interface with several tabs: Graph, History, Personal (selected), Treatment plans, Questionnaires, Test Results, and Interface Warnings. Under the 'Personal' tab, there are sub-tabs: Contact info (selected), Next of kin, Clinical, Owners, Account, and Audit. The 'Contact info' sub-tab is active, showing fields for Home phone, Mobile phone, Work phone, Email address, and Fax number. A dropdown menu is open for 'Messaging method:', listing various options. The 'Mail' option is currently selected and highlighted in blue.

- **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)

Ensure at least one phone number fields have been entered to generate a call message

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 **Select a template** (Make a choice) ▼

Message Method (Make a choice) **Select a messaging method** ▼

Contact Type (None selected) ▼ **Select a contact type**

In Use

Select OK when done

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.

✓ OK ✕ Cancel

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:

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:

Mobile:

Email:

Direct Fax:

Messaging method: Mail

Dropdown menu options:

- E-mail
- Email with PDF Attachment
- SMS
- Fax
- Mail (selected)
- Phone pref. (written by E-mail)
- Phone pref. (written by E-mail/PDF)
- Phone pref. (written by SMS)
- Phone pref. (written by fax)
- Phone pref. (written by mail)

Right sidebar: Email / SMS Alerts

Buttons: Add a new record

Message: There are no items to display

- **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	<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 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:

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.

Select a Template

Select a Message Method

Select a Contact Type

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.

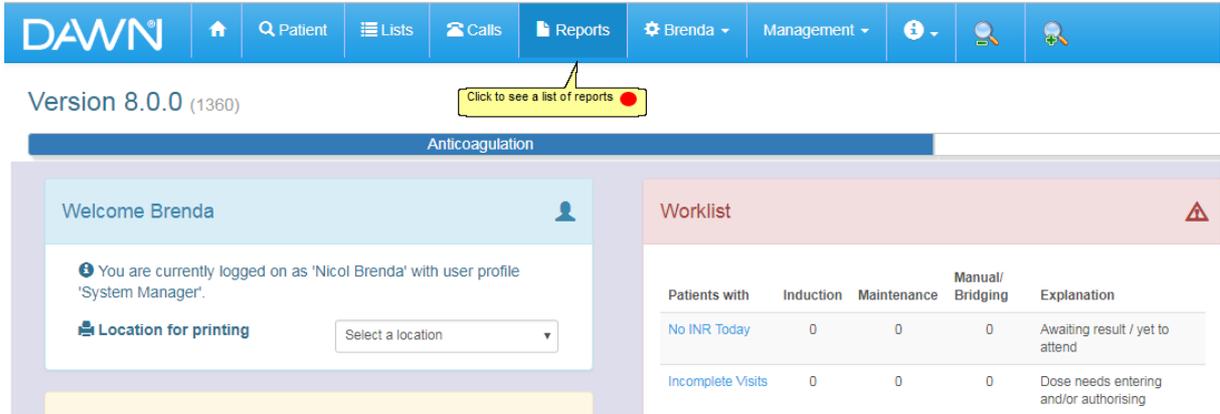
- **Timed messages** in DAWN can send an automatic message at a predefined time such as 7 days after a patient's blood test was due
- **Timed messages** might include the count of patient records awaiting attention for some reason such as flagged results or missing results.



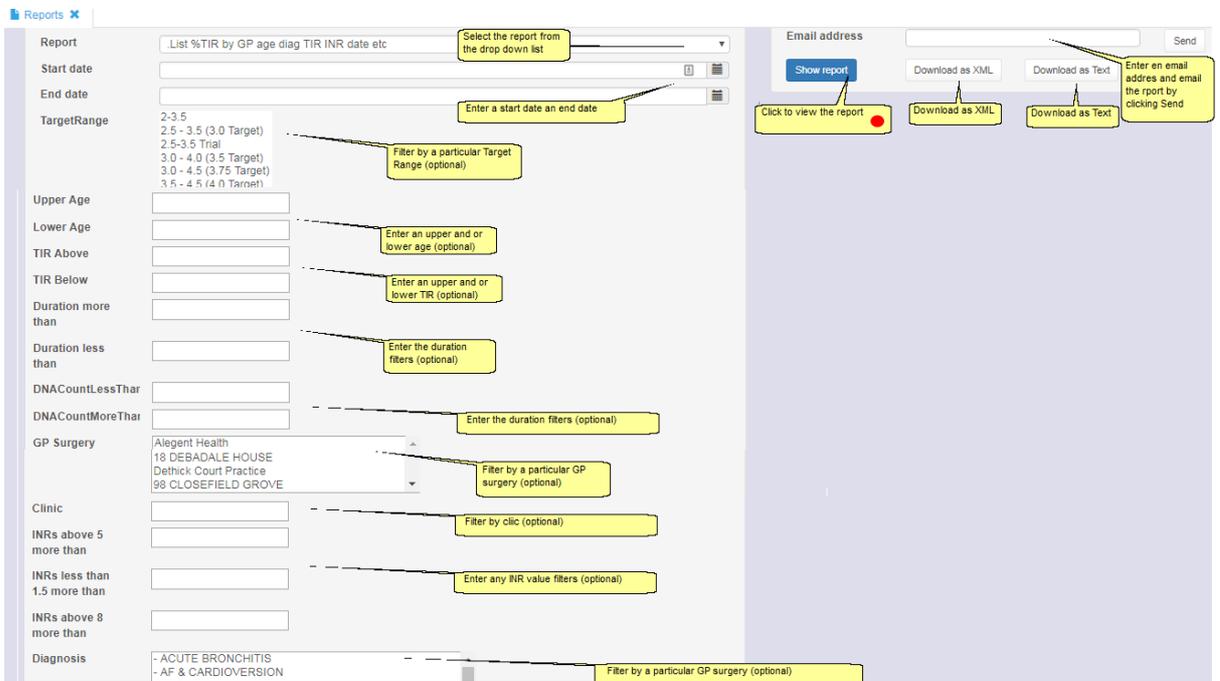
See preferences for messaging by Healthcare professional

See settings for timed messages

18 Reports



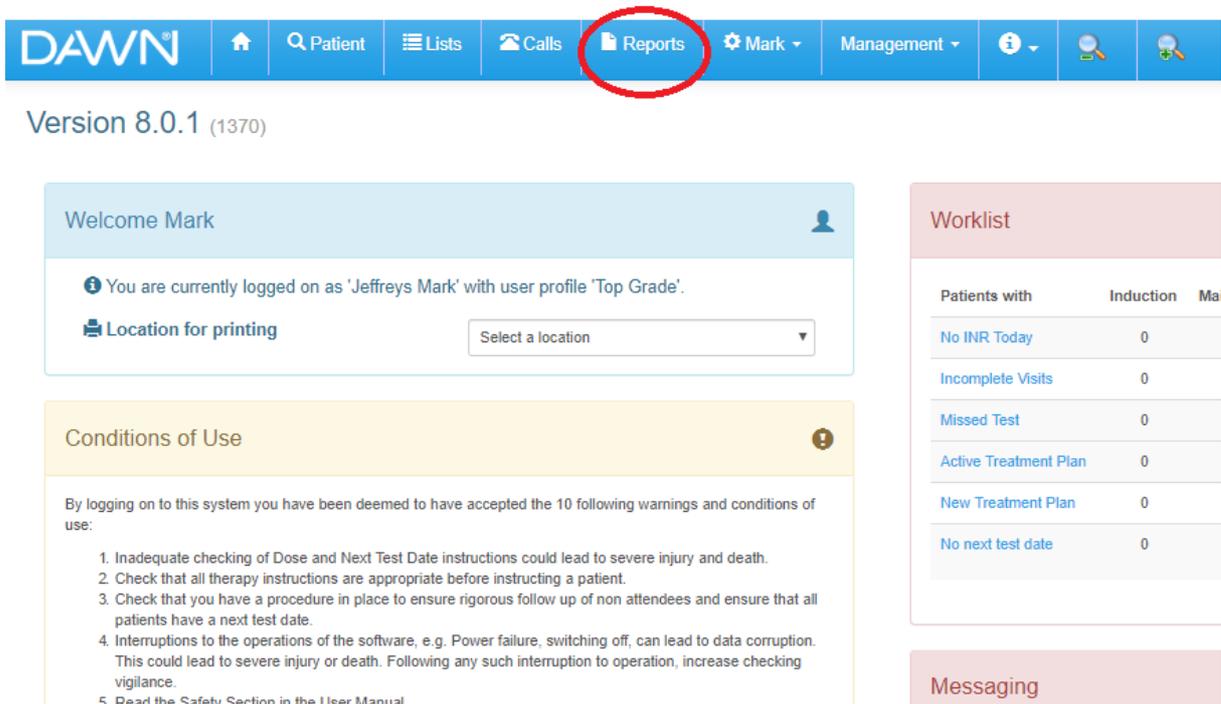
18.1 List of reports



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	Total DNAs	Total INRs
Frank	JACKSON	G44406	5479784137	M	27/10/1982	35	ATRIAL FIBRILLATION	2.0 - 3.0	580	100	0	0	4.71	0	3
Alistair	SIMMONS	1456289		M	11/08/1961	56	STAFF NOT SURE	2.5 - 3.5 (3.0 Target)	572	100	0	0	2.64	0	4
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	Total DNAs	Total INRs
Regina	MITCHEL	M28447		F	01/01/1945	73	ATRIAL FIBRILLATION	2.0 - 3.0	690	100	0	0	1.35	0	10
Pat	LILLEY	W23693	9882472948	F	11/08/1920	97	PE POST OPERATIVE	2.0 - 3.0	606	75.45	24.55	0	7.79	1	4
Mimi	WOLSENHOLME	P81882	9738439374	F	05/10/1919	98	PULMONARY EMBOLISM NOT SP	2.0 - 3.0	375	100	0	0	50	0	3
Mary	BROWN	J16081	9776258475	F	18/01/1958	60	ANGINA	2.0-3.0 trial	538	77.45	0	22.55	2.21	0	6
Alistair	MENDLESON	Z88508	5988481614	M	07/09/1908	109	ARTERIALSCLEROSIS	2.5 - 3.5 (3.0 Target)	551	56.83	43.17	0	10.07	0	4
Anne	BROWN	P43837	4222297500	F	29/03/1957	60	ATRIAL FIBRILLATION	2.0 - 3.0	633	59.15	0	40.85	2.79	0	4
Jonathan	HIGSON	E80266	4192569903	M	22/01/1936	82	ATRIAL FIBRILLATION	2.0 - 3.0	594	80.5	0	19.5	0.64	0	2

18.3 Running Reports



Choose the report from the dropdown menu and select any parameters as required before choosing [Show report](#).

Report:

Start date:

End date:

Email address:

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
Total mg	8	7½	7½	8	7½	7½	7½

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)							
Total mg	8	7½	7½	8	7½	7½	7½



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)							
Total mg	8	7½	7½	8	7½	7½	7½

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)

INR: 2.3 In Range ✓ Date: 16/01/2018

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
Total mg	3	3.5	3.5	3	3.5	3.5	3.5

Dose: 3.36 d ✓ No dose change Next: 30/01/2018 2 wk ✓

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	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 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 dose 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
Total mg	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>Total mg</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	Total mg	3	3.5	3.5	3	3.5	3.5	3.5	2 wk		<div style="width: 100%; height: 10px; background: linear-gradient(to right, blue, green);"></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																																
Total mg	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

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
Total mg		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>Total mg</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	Total mg	3	3.5	3.5	3	3.5	3.5	3.5	2 wk		<div style="width: 100%; height: 10px; background-color: #4CAF50;"></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																																
Total mg	3	3.5	3.5	3	3.5	3.5	3.5																																

- 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

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				
Total mg	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

- 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	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)							
Total mg	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 Pentasaccaride agent from the drop down list.

[Dosing](#) | [Contacts](#) | [Letters](#) | [Drugs 1](#) | [Events](#) | [Procedures](#) | [Reviews](#) | [Reminders](#) | [Grou](#)

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
Total mg					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>Total mg</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	Total mg	3	3.5	3.5	3	3.5	3.5	3.5	2 wk		<div style="width: 50%; height: 10px; background: linear-gradient(to right, blue, green);"></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																																
Total mg	3	3.5	3.5	3	3.5	3.5	3.5																																

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.

The screenshot displays a 'Customize dosing-instruction' window for Warfarin. At the top, there are tabs for 'Dosing', 'Contacts', 'Letters', 'Drugs' (with a red '1' notification), 'Events', 'Procedures', and 'Review'. Below the tabs, the patient's INR is 2.4 (In Range) and the date is 12/01/2018. The main window contains a table for 'Warfarin' with columns for days of the week (Sun-Sat) and rows for 'Pills (3 mg)' and 'Pills (1/2 mg)'. The 'Total mg' row shows 3 mg for each day. Below the table, there are fields for 'Innohep' (08:00), 'Tinzeparin', and a 'Dose' of 3.00 d. A 'Next' date of 26/01/2018 is shown with a '2 wk' interval. A dropdown menu is open, listing dose values from 6000 to 21000, with 11000 selected. A yellow callout box points to the 11000 option with the text 'Select the syringe size'.

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)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	1	1
Pills (½ mg)	<input type="checkbox"/>						
Total mg	0	0	0	3	3	3	3

Change the time here ●

Innohep	Fri	Sat	Sun	Mon	Tue	Wed	Thu
08:00 11000 ▼ iu	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6000 ▼ iu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tinzeparin ▼ Manual ▼ 24h (two amounts) ▼

Dose 1.71 d? **Dose decreased by 43%** Next 26/01/2018 📅 2 wk ?

Accept dose New INR/Dose Tested No Further Tests

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)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	1	1
Pills (½ mg)	<input type="checkbox"/>						
Total mg	0	0	0	3	3	3	3

Click here to save ●

Innohep	Fri	Sat	Sun	Mon	Tue	Wed	Thu
10.00 11000 ▼ iu	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6000 ▼ iu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tinzeparin ▼ Manual ▼ 24h (two amounts) ▼

Dose 1.71 d? **Dose decreased by 43%** Next 26/01/2018 📅 2 wk ?

Accept dose New INR/Dose Tested No Further Tests

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

The screenshot shows the 'Dosing' tab with the following details:

- INR: 2.4 In Range ✓
- Date: 12/01/2018 ✓ ↺
- Not scheduled
- Warfarin dosing table:

Warfarin	Fri	Sat	Sun	Mon	Tue	Wed	Thu
Pills (3 mg)						1	1
Pills (½ mg)							
Total mg	0	0	0	0	0	3	3
- Innohep dosing table:

Innohep	Fri	Sat	Sun	Mon	Tue	Wed	Thu
10:00	11000iu	✓	✓	✓	✓		✓
	6000iu				✓		
- Dose: 0.86 mg ⚠️ Dose decreased by 71%
- Next: 19/01/2018 📅 7 d ✓
- Buttons: Accept dose (highlighted), 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.

The screenshot shows the 'Dosing' tab with the following details:

- INR: 2.1 In Range ✓
- Date: 12/01/2018 ✓ ↺
- 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)							
Total mg	3	3	3	3	3	3	3
- Lovenox dosing table:

Lovenox	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00	40Mg	<input type="checkbox"/>					
20:00	40Mg	<input type="checkbox"/>					
- Enoxaparin 1 mg per Kg (q12h)
- Patient's weight: 40.8 kg (89.9 lbs) (Measured 20/12/2017) (highlighted with tooltip)
- Dose: 3.00 mg ✓ No dose change
- Next: 26/01/2018 📅 2 wk ?
- Buttons: Accept dose (highlighted), 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 ✓ ↻

Customize dosing-instruction ↻ ✕

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

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

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
Total mg		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	<input type="text" value="91.9"/>	lbs
Measured at	<input type="text" value="01/09/2017"/>	BMI <input type="text" value="17.4"/>

Height	<input type="text" value="61.0"/>	Inch
Measured at	<input type="text" value="01/09/2017"/>	BSA <input type="text" value="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)	<input type="text" value="1"/>						
Pills (½ mg)	<input type="text"/>						
Total mg	3						

Lovenox	Sun	Mon	Tue	Wed	Thu	Fri	Sat
<input type="text" value="08:00"/> <input type="text" value="50"/> Mg	<input type="checkbox"/>						

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)							
Total mg	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"/>				

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

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 20/12/2017	2.6	0.64 d	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 1 1/2 1 1/2 1 1/2 1/2 Pills (3 mg) 1 Pills (5 mg) 1 Total mg 1 0.5 0.5 1 0.5 0.5 0.5	2			
Tue 14/11/2017	2.4	0.64 d	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 1 1/2 1 1/2 1 1/2 1/2 Pills (3 mg) 1 Pills (5 mg) 1 Total mg 1 1/2 1/2 1 1/2 1/2 1/2	7 d			The patient answered as follows to the questions: Any bleeding or bruising? No...
Tue 31/10/2017	2.5	0.64 d	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 1 1/2 1 1/2 1 1/2 1/2 Pills (3 mg) 1 Pills (5 mg) 1 Total mg 1 1/2 1/2 1 1/2 1/2 1/2	2 wk			
Tue 24/10/2017	2.8	0.64 d	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 1 1/2 1 1/2 1 1/2 1/2 Pills (3 mg) 1 Pills (5 mg) 1 Total mg 1 1/2 1/2 1 1/2 1/2 1/2	7 d			
Tue 03/10/2017	2.3	0.64 d	Warfarin Sun Mon Tue Wed Thu Fri Sat Pills (1 mg) 1 1/2 1 1/2 1 1/2 1/2 Pills (3 mg) 1 Pills (5 mg) 1 Total mg 1 1/2 1/2 1 1/2 1/2 1/2	31/2 wk			

19.4.8.1 View full notes

Hovering over the *info* icon displays the full dosing instruction and full notes in a popup window:

Date	INR	Dose	Dosing Instructions	Time	DNA	In range	Comments
Wed 06/12/2018	0.0	0.00 d					
Wed 06/09/2017	3.5	8.50 d	Bmg/mg ALTERNATE DAYS				
Wed 16/08/2017	3.7	8.50 d	Bmg/mg ALTERNATE DAYS	7 d			

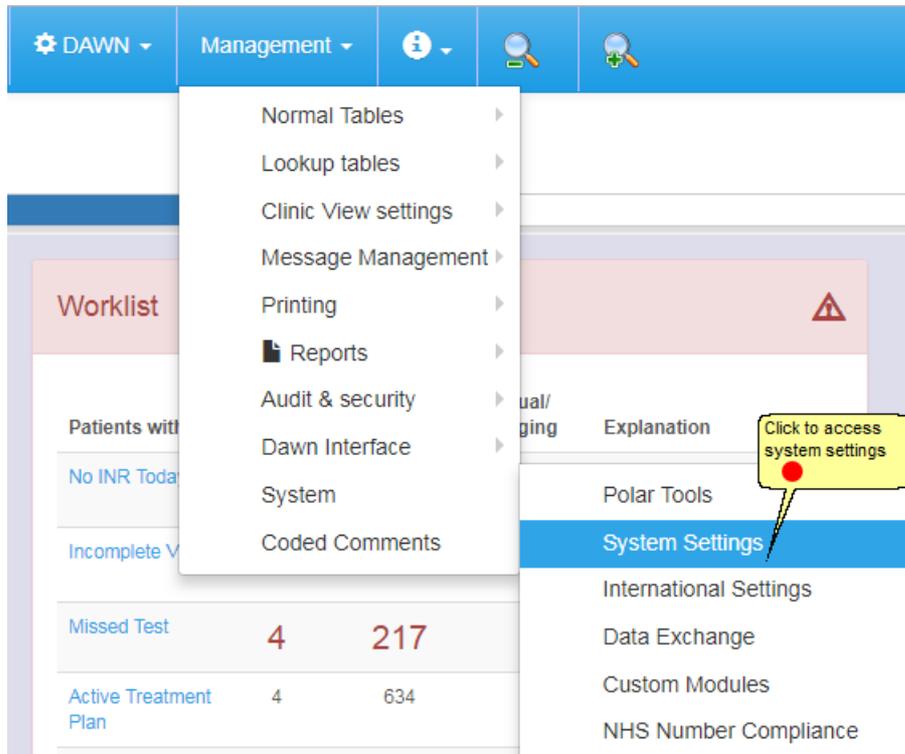
Details

Bmg/mg ALTERNATE DAYS

Patient was unable to get transport to the clinic and has requested home visits. Assessment will be arranged.

View additional visits

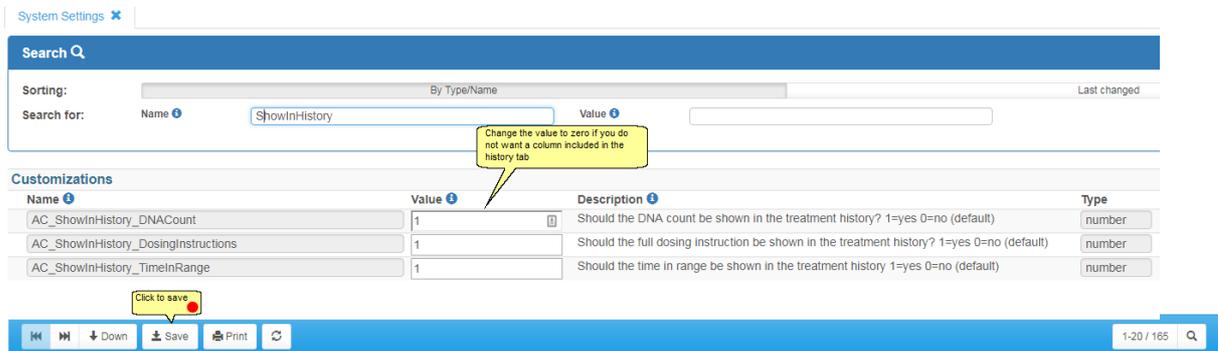
19.4.9 Deciding which columns to include in the history tab



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

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:

- | | |
|----------|---|
| 2 | The smallest tablet part used in the regime.

<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>
1 (default)	One whole tablet (if the regime uses more than one tablet strength, this is the smallest tablet strength).
0	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>1</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>Total 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	Pills (3 mg)	1	1	1	1	1	1	1	Pills (1 mg)								Total mg	3	6 wk								
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																															
Pills (3 mg)	1	1	1	1	1	1	1																															
Pills (1 mg)																																						
Total mg	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)							
Total mg	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

See Dr Flag

Seen Dr Flag

Sample No

Inpatient

Contact Status

Auto Authorisation Result

INR Time

Maintenance

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

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (3 mg)	<input type="text" value="1"/>						
Pills (1 mg)	<input type="text"/>						
Total mg	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

<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

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			
Total mg	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

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				

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			
Total mg	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)							
Total mg	3	3	3	3	3	3	3

19.4.12 Including Instructions in MessageTemplates

1. 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.

- 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.
- 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

```

- 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	
Total mg	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

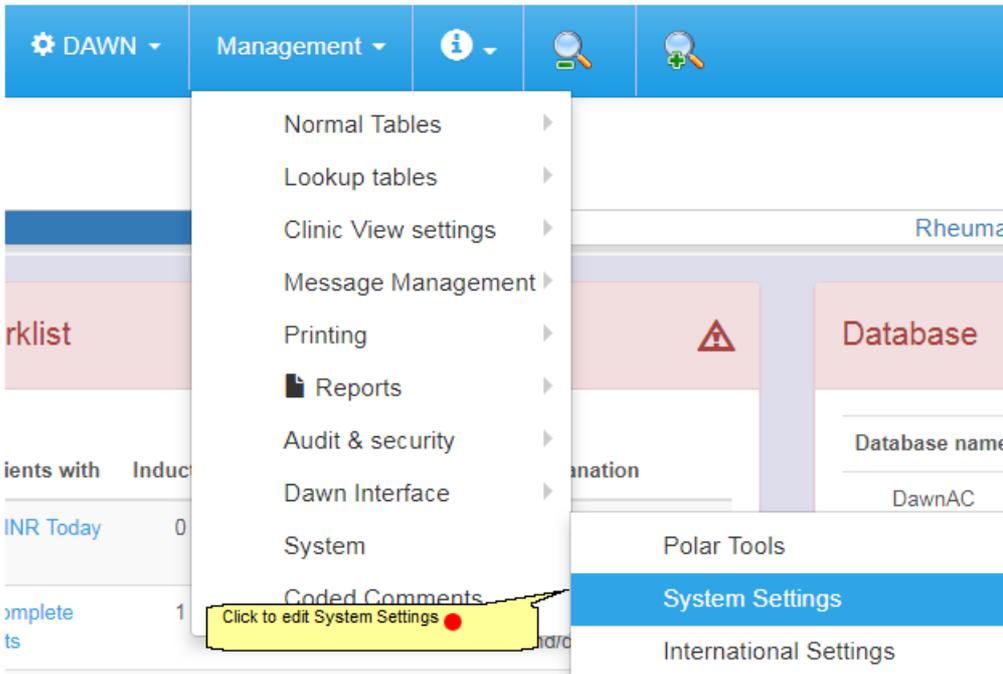
A system setting controls whether doses can be customised and a user profile setting controls which users are permitted to custom dose a patient.

Permitting or Prohibiting Custom Instructions - System Setting

Permitting or Prohibiting Custom Instructions - User Profile Setting

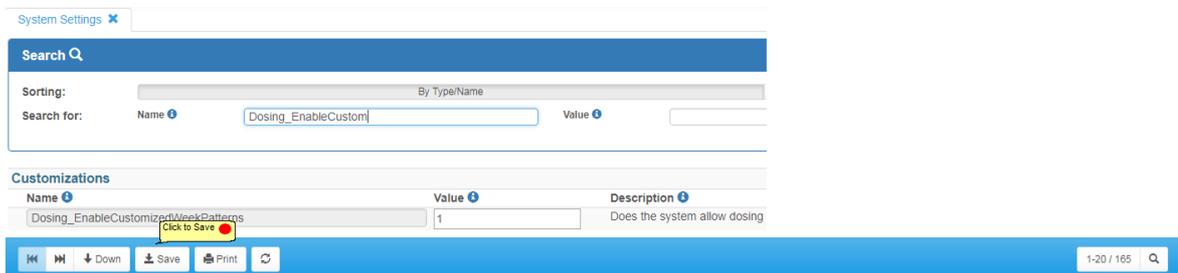
19.4.13. Permitting or Prohibiting Custom Instructions - System Setting

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.

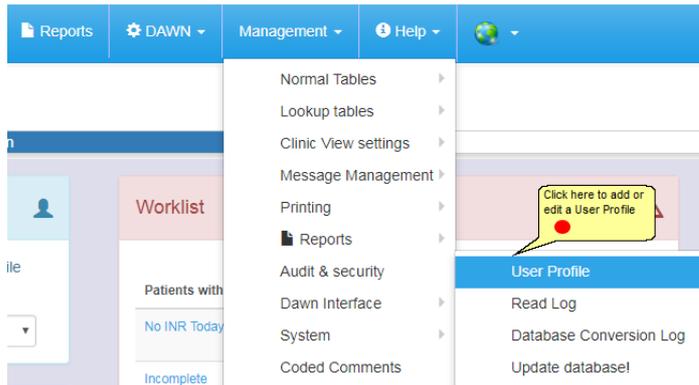


Change the Value to:

- 1 Permit users to customise dosing instructions (depending on User Profile settings - see below)
- 0 Prohibit anyone from customising dosing instructions

19.4.13. 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 a '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 highlights a disabled cycle button, stating: 'The cycle button is disabled for plain text instructions.' Below the instruction, the dose is set to 10.00 d, with 'No dose change' and 'Next' date of 07/06/2018 for a 12-week duration. 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 'Customize dosing-instruction' dialog for Warfarin. It features a table for selecting the day of the week and the corresponding dose in mg. The 'Total mg' row shows 0 for all days. The dialog also includes a dropdown for 'LMWH drug' (None selected) and buttons for 'Accept dose', 'New INR/Dose', 'Tested', and 'No Further Tests'.

Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
mg							
Total mg	0	0	0	0	0	0	0

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.

Dosing							
INR: 2.6 InRange ✓ Date: 29/07/2009							
Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Pills (10 mg) 10	1/2	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

INR: 2.6 InRange ✓ Date: 29/07/2009							
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
1/2	1/2	1/2	1/2	1/2	1/2	1/2	
White tablet(s) [10 mg strength]							

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

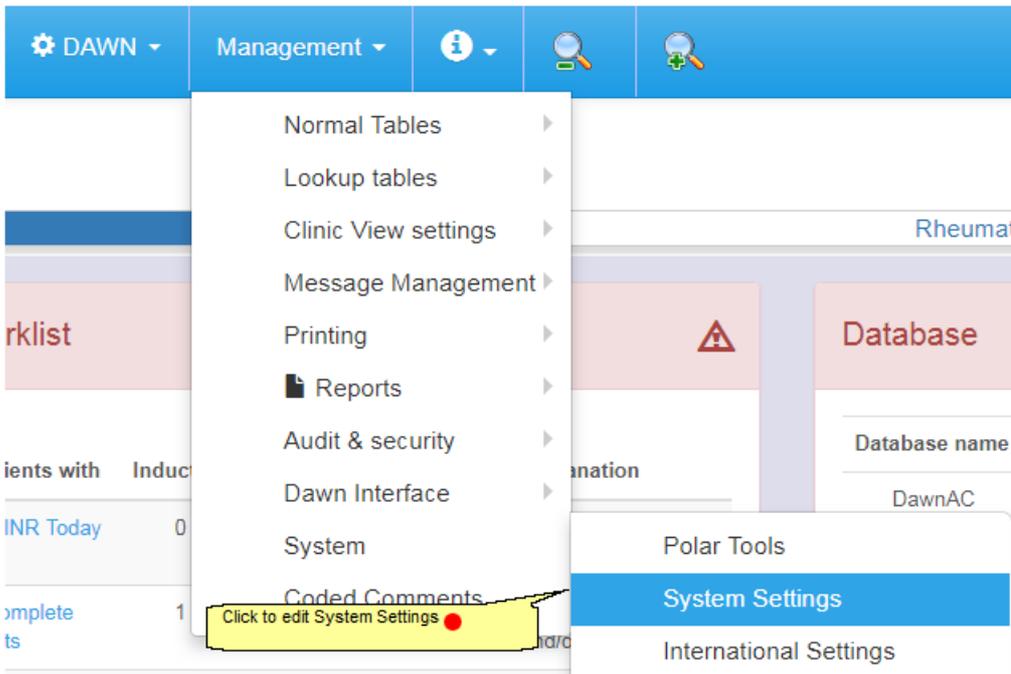
- Compatibility mode instructions cannot be defined for Regimes comprising more than one tablet strength.

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

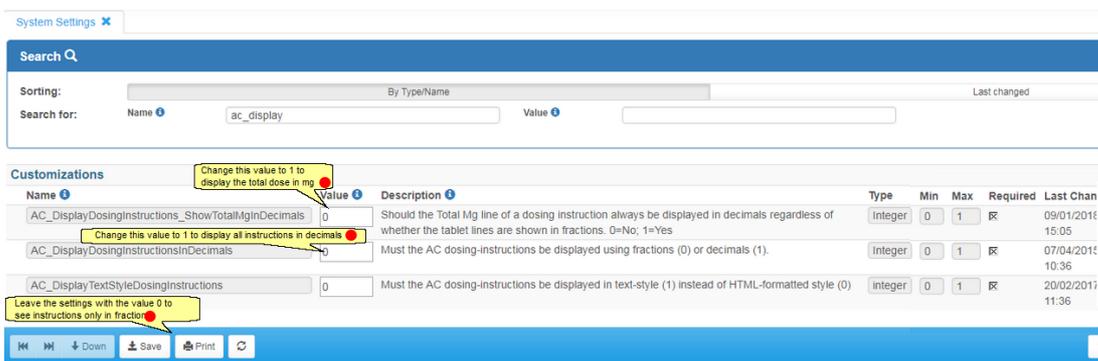
Dosing instructions can be displayed in fractions (eg. 2½ tablets, 3¼ mg) or decimals (eg. 2.5 tablets, 3.25 mg) or a mixture of both (eg Dosing in multiple tablet sizes with the total dose per day in mg).



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*



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	
Total mg	3	3½	3	3½	3	3½	3

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	
Total mg	3	3.5	3	3.5	3	3.5	3

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)		½		½		½	
Total mg	3	3.5	3	3.5	3	3.5	3

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 software interface. The top navigation bar includes 'DAWN', 'Management', and several icons. A dropdown menu is open under 'Management', listing various options. The 'Patient Tablet Options Default Settings' option is highlighted in blue. A callout box with a red dot points to this option, containing the text: 'Click here to add / amend default patient tablet options'.

Management	Anticoagulation Tables	TargetRange INR
Normal Tables	Allergy	Anticoagulant
Lookup tables	Anticoagulant Brand	Regime
Clinic View settings	Blood Group	Induction Algorithm
Message Management	Cessation Reason	INR Result Range
Printing	Diagnosis	AC Test Alias
Reports	Disease area	Therapeutic Indications
Audit & security	Drug	Qualifying Risk Factors
Dawn Interface	Ethnic Origin	Interacting Drugs
System	Event	Specific Risks
Coded Comments	HC Professional Type	Permitted Regimes
	Intervention Timeslot	Non VKA Dose
	Language	Questionnaire Settings
	LN	Patient Tablet Options Default Settings

19.6.1 Default patient tablet options - anticoagulant

Patient Tablet Options Default Settings × Patient × Anticoagulant Brand × Anticoagulant ×

Anticoagulant

Brand

Record Dose As:

Split Tablet Into:

Dose in:

Tablet Strength 1

Tablet Strength 2

Tablet Strength 3

Show Total Daily Dose Line?

Use Patient Tablet Options by default?

Zero Dose Message

Warfarin × →

Search for:

Warfarin

Phenindione

Acenocoumarol

Phenprocoumon

Dindevan

COUMADIN

Select your most commonly used anticoagulant

19.6.2 Default patient tablet options - brand

Patient Tablet Options Default Settings ×

Anticoagulant

Brand

Record Dose As:

Dose in:

Tablet Strength 1

Use Patient Tablet Options by default?

Zero Dose Message

Warfarin ▼ →

(None selected) ×

Search for:

(None selected)

kovar (kovar)

Canonpharma (Canonpharma)

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

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##

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##

Decide whether whole tablets or splitting tablets is allowed

19.6.5 Default patient tablet options - mg or tablets

Patient Tablet Options Default Settings x Patient x Anticoagulant Brand x Anticoagulant x

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 x Patient x Anticoagulant Brand x Anticoagulant x

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), 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))

Show Total Daily Dose Line?

Use Patient Tablet Options by default?

Zero Dose Message:

19.6.7 Default patient tablet options - save default settings

Patient Tablet Options Default Settings x Patient x Anticoagulant Brand x Anticoagulant x

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: Take no ##anticoagulant name##

Click here to save

Save List Print Refresh

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
Total mg	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).

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:



HINT

+/-	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)

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.

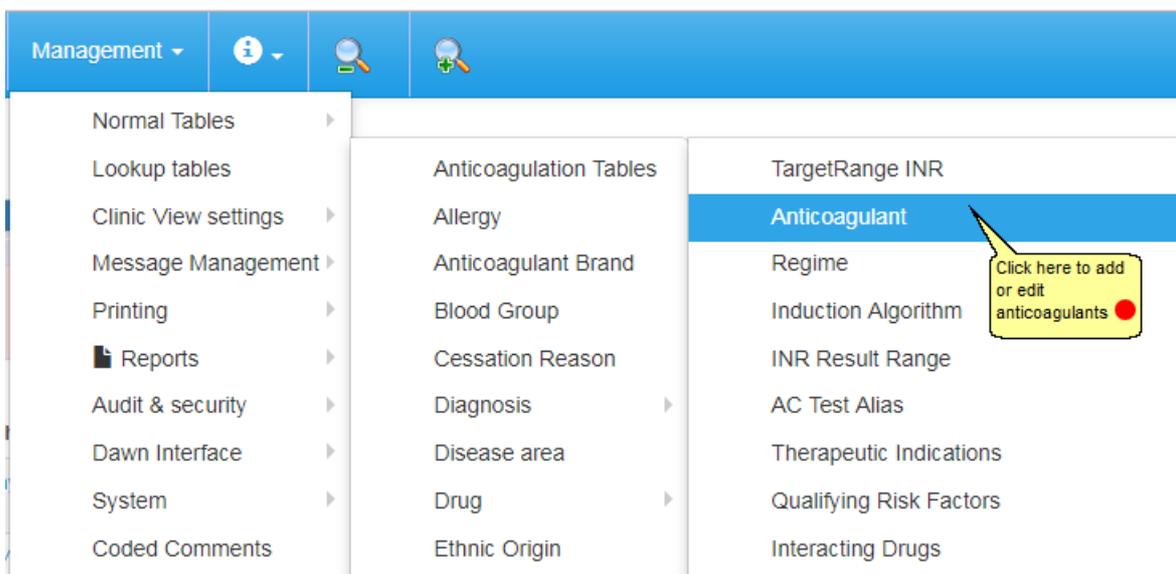
Anticoagulants

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 ✕

Description: Warfarin

Notes:

Dose Units: mg

Caption	AltText	In Use
Barr (USA) (Warfarin)		
Pills 1 mg .	Pink	<input checked="" type="checkbox"/>
Pills 2 mg .	Lavender	<input checked="" type="checkbox"/>
Pills 2½mg .	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 7½mg .	Yellow	<input checked="" type="checkbox"/>
Pills 10 mg	White	<input checked="" type="checkbox"/>

Click Edit to unlock the form

Description
Warfarin
Phenindione
Acenocoumarol
Phenprocoumon
Dindevan
Fluindione
Bishydroxycoumarin
COUMADIN
Dabigatran
Old
Rivaroxaban
Newfarin
Warf
Dabigatran 110mg

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...

Click OK and then Click edit again

OK

19.7.1.3 Creating a New Anticoagulant Record

Anticoagulant ✕

Description

Notes

Dose Units

→ [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"/>

Click new to add a new anticoagulant

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 callouts:

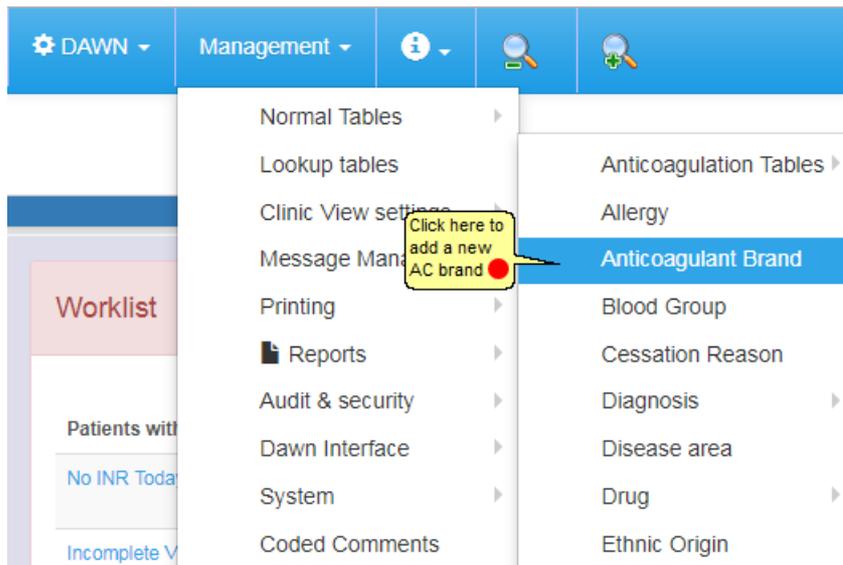
- Description:** A text input field with a callout: "Enter a description".
- Notes:** A large text area with a callout: "Enter any notes".
- Dose Units:** A text input field with a callout: "Enter the DoseUnits (e.g. mg) the Anticoagulant is normally prescribed in.".
- Non Vitamin K Antagonist:** A checkbox 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 checked checkbox 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, with a callout: "Click OK to save" pointing to the OK button.

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

The screenshot shows the DAWN Management interface. The 'Management' menu is open, displaying a list of options. The 'Anticoagulation Tables' option is selected, leading to a sub-menu where 'Anticoagulant' is highlighted. A yellow callout bubble points to the 'Anticoagulant' option with the text 'Click on Anticoagulant'.

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.

The screenshot shows the 'Anticoagulant' configuration screen for Warfarin. The 'Description' field contains 'Warfarin'. The 'Dose Units' field is set to 'mg'. A yellow callout bubble points to the 'Add a new record' button with the text 'Click to add / edit tablets'. Below this, a table lists the tablets for Warfarin, sorted by Brand (Region) then by size.

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"/>

On the right side of the screen, a list of anticoagulants is displayed, including Warfarin, Phenindione, Acenocoumarol, Phenprocoumon, Dindevan, Fluindione, Bishydroxycoumarin, COUMADIN, Dabigatran, Old, Rivaroxaban, Newfarin, Warf, and Dabigatran 110mg.

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:

	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"/>	

19.7.3.3 Creating a Tablet Strength record

AnticoagulantTablet

Anticoagulant: Warfarin > AnticoagulantTablet: (New record)

Brand: (None selected)

TabletSize:

Caption:

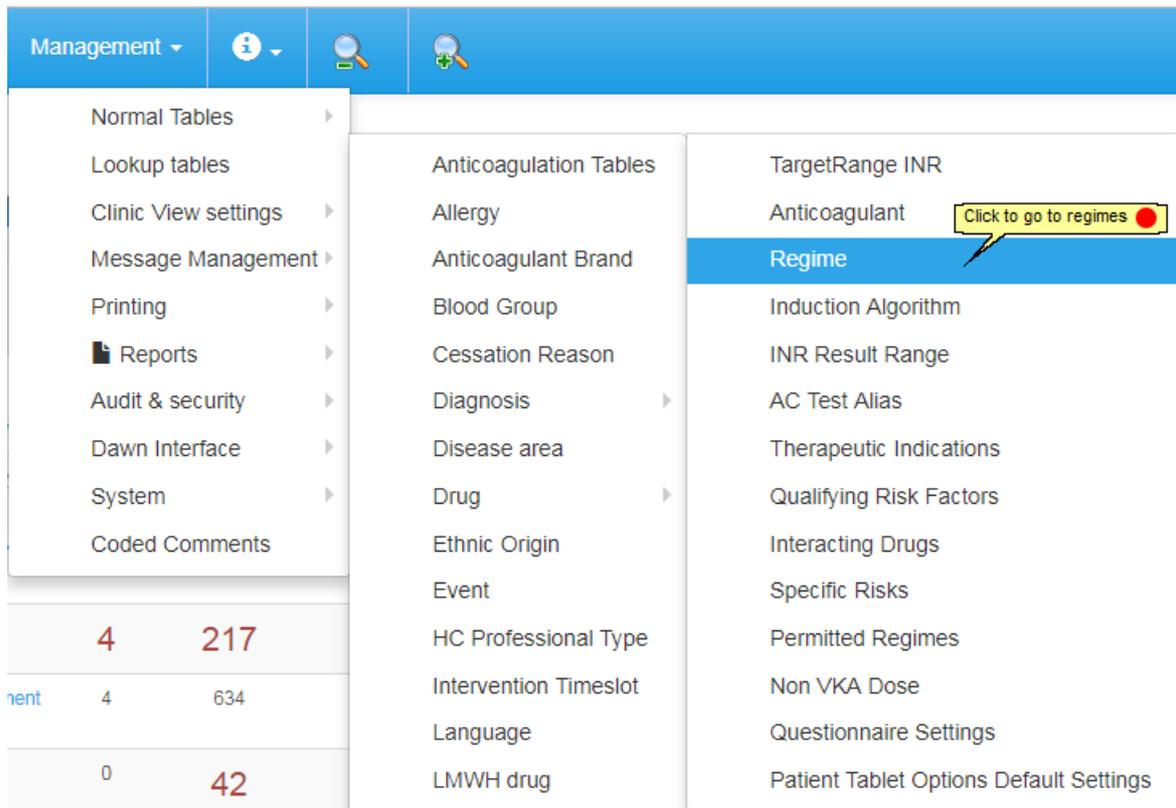
AltText:

Notes:

In Use:

Image: No file chosen

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 Synthrome (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
Synthrome	Daily Average	Active
Synthrome 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	<input type="text" value="Mg Sinthrome (weekly)"/>		
Code Name	<input type="text" value="SINMGW"/>		
Anticoagulant	<input type="text" value="Acenocoumarol"/> ▼ →		
Brand	<input type="text" value="(None selected)"/> ▼		
Status	New		

Record Dose As ⓘ	Weekly Total	Dose Units ⓘ	Mg
Split Tablet Into	Whole tablet		
Tablet Strength 1	<input type="text" value="0.00"/>	<input type="text" value="(None selected)"/> ▼	
Max Step Between Instructions	<input type="text" value="5"/>	mg per	Week
Max Dose Increment	<input type="text" value="5"/>	Clone Regime	

[Instructions](#) Defaults for New Instructions

→ [Instruction 1 - 50 / 175](#)

19.7.4.3 Make the regime editable

Regime ✕

Description	Mg Sintrome (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...



19.7.4.5 Confirm editing is required

Regime ✕

Description

Code Name

Anticoagulant ▼ →

Brand ▼

Status New

Record Dose As ⓘ **Dose Units** ⓘ

Split Tablet Into

Tablet Strength 1 ▼

Max Step Between Instructions mg per

Max Dose Increment Clone Regime

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

Code Name

Anticoagulant ▼ →

Brand ▼

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)

[OK] [Cancel]

19.7.4.5.2 Deactivating a Regime

The screenshot shows a form for a regime with the following fields: Description (Mg Sintrome (weekly)), Code Name (SINMGW), Anticoagulant (Acenocoumarol), Brand ((None selected)), and Status (Active). At the bottom right, there are three buttons: 'Click deactivate' (highlighted with a red dot and a callout box), 'Deactivate', and 'Maintain'.

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. At the bottom right, there are three buttons: 'Deactivate', 'Maintain' (highlighted with a red dot and a callout box), and '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"> a) Regimes that are <i>New</i> do not appear in the Regime selection list on the Treatment plan form. 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. c) Settings for <i>New</i> regimes and their instructions can be altered.
2. Active	<p>In use.</p> <ul style="list-style-type: none"> a) <i>Active</i> regimes appear in the selection list on the Treatment Plan. b) Instructions for <i>Active</i> regimes can be used in Dosing patients c) Settings for <i>Active</i> regimes and their instructions cannot be altered

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:

Validation	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.
Format	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
Verification	<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">01 - Number present and verified02 - Number present but not traced03 - Trace required04 - Trace attempted - no single match05 - Trace needs to be resolved

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.

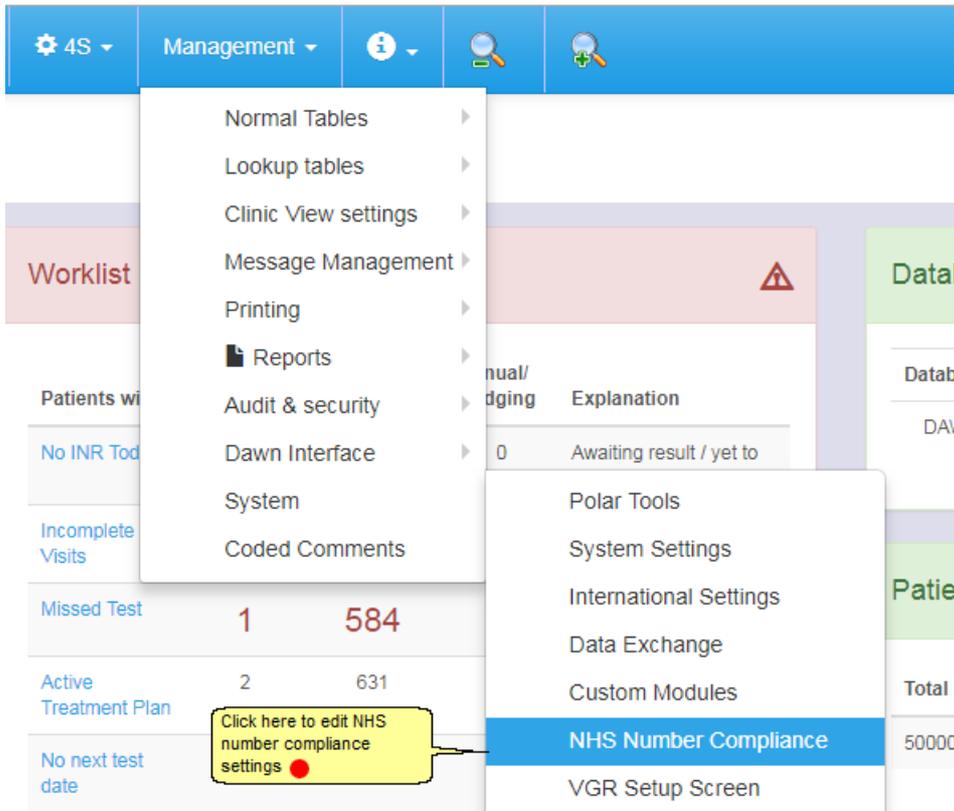
Output

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".

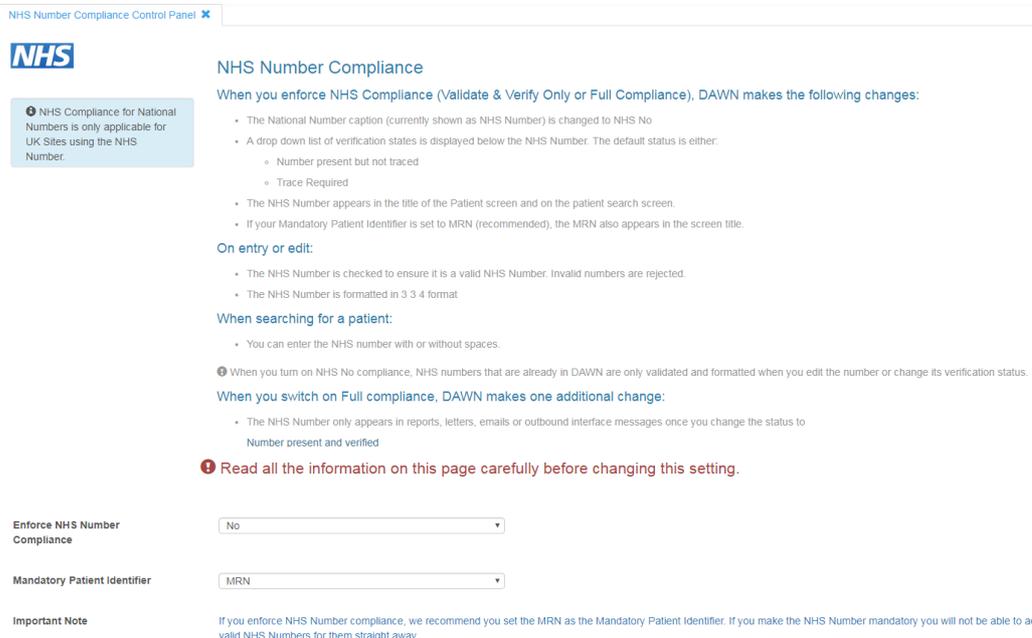
Validate and Verify Only Compliance

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



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

A screenshot of a dropdown menu. The menu is open, showing three options: 'No' (selected), 'Yes - Validate & Verify Only', and 'Yes - Full Compliance'. The dropdown is titled '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.

A screenshot of a dropdown menu titled 'Mandatory Patient Identifier'. The menu is open, showing two options: 'Unit Number' (selected) and 'NHS Number'.



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.

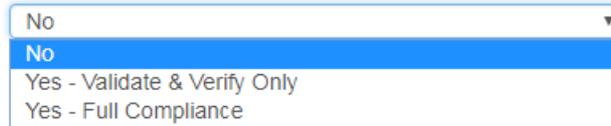
20.4 NHS number compliance options

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

A screenshot of the configuration interface. It shows two dropdown menus. The first is labeled 'Enforce NHS Number Compliance' and is set to 'No'. The second is labeled 'Mandatory Patient Identifier' and is set to '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.

**Enforce NHS Number
Compliance**A screenshot of a dropdown menu. The menu is open, showing four options: 'No' (selected and highlighted in blue), 'Yes - Validate & Verify Only', and 'Yes - Full Compliance'. The top of the menu shows 'No' with a small downward arrow.**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.



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	Click to see the list of options
Address 1	39 MAES YR & HAF	
Address 2		
Town	LEEDS & District	
County	LLANELLI	
Post Code		
Sex	Female	
Title	Mrs	
Date of birth	01/08/2006	
Date of Death		
Ethnic origin	(None selected)	
Language	Spanish	

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

NHS Number status

- 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

NHS Number status

Address 1

Address 2

Town

County

Post Code

Sex

- Number present but not traced
- Number present and verified
- Number present but not traced
- Trace required
- Trace attempted - no single match
- Trace needs to be resolved
- 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 Age

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".

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:
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

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	Dateofbirth	Address 1	Address 2	Town	County	Post Code	Sex	Status	Home phone	Mobile phone	W
ADAMS	John	59	999	012 345 6789	<input checked="" type="checkbox"/>	01/01/1959	11 SPRACKLANDS	Highgate	York	Yorks		Male	Active	015395083999		

- 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.

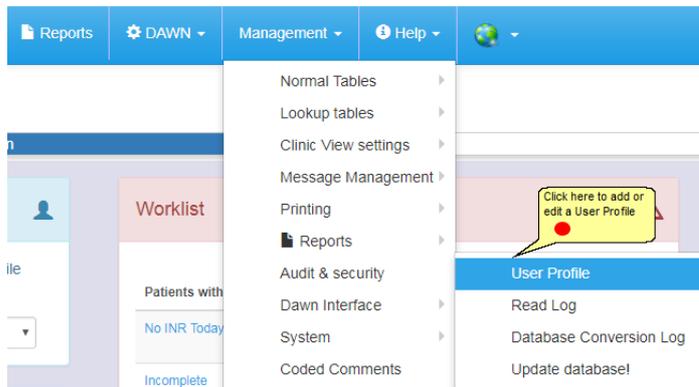
The table below shows the short codes and full descriptions for the possible NHS number statuses:

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.

The screenshot shows a patient record for TARGARYEN, Daenerys - Female. The screen title is: TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 / 02 - 4 The Square, Milnthorpe. Callouts point to 'Name', 'Gender', 'Date of birth', and 'NHS Number / Status'. Below the title, there are tabs for 'Dosing', 'Contacts', 'Letters', and 'Drugs' (with a red '1' notification). The 'Drugs' tab is active. There are also fields for 'INR' and 'Date' (19/03/2024). On the left, there are fields for 'Risk Class' (Low), 'Pref. Clinic' (Dalton Square Surgery GP (S)), and 'Phone' (01539563091 - home). Above the 'Risk Class' field, there are two green boxes: 'Above Average' and 'Above Average (max diff: 0.9)'. Above the 'Pref. Clinic' field, there is a green box: 'VGR'.

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
	AC Nurse
	Clerical
	IT Manager

Description

Patient

- AllowCreatePatient
- AllowEditPatientData
- AllowChangeRiskClass
- AllowEditNHSNoVerificationStatus
- AllowEditPatientOrganisations
- AllowDeactivatePatient
- AllowViewPatientTelAppFields
- AllowedPatientTab Sheets ?

-
-
-
- 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

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.

The screenshot shows the 'Dosing' tab selected in the top navigation bar. Below the navigation bar, there is a yellow highlighted area containing an INR input field with a star icon and a date field set to 16/01/2018. To the right of this area, there is a blue link labeled 'Reschedule' next to the appointment details: 'Tue 16/01/2018, 11:45 - 12:00: Dalton Square Surgery GP (S)'. Below this is a 'Treatment Notes' section with a plus icon and a text area. At the bottom, there are buttons for 'Accept INR', 'DNA', and 'Un-schedule', and the status 'Scheduled'.

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.

Recommended

Recommended date: Wed 17/01/2018
 Recommended interval: 14 days
 Preferred clinic: Dalton Square Surgery GP (S)

Clinic: Dalton Square Surgery GP (S)
 Date: 18/01/2018

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

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.

TARGARYEN, Daenerys - Female - 01/01/1987 - 012 345 6789 - 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 Date: 01/10/2016 - Indefinite
 Anticoagulant: Warfarin 3 & 0.5mg Whole Tablets Daily

Treatment Plan: 1 of 1 active | Report

Accept INR | DNA | Un-schedule

Date	INR	Dose
Thu 18/01/2018	0.0	0.00 d
Wed 03/01/2018	2.3	3.00 d

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

Induction algorithm

Max % Dose Change ⓘ

Max Interval ⓘ

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 / 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.									
Name	Hospital no.	Age	Appointment	Regime	Questionnaire	Status			
BILLINGS, Sarah	B29700	56		Dabigatran 75 mg Twice Daily		None Scheduled (active tr	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.		
HARRIS, Julie	H68899	114		Dabigatran 110mg bd		None Scheduled (active tr	The status shows whether a patient has no appointment scheduled, a scheduled appointment or an overdue appointment.		
DABIGATRAN, Lower Dose	75mgbd	89	12/08/2013	Dabigatran 75 mg Twice Daily	Dabigatran Initiation	Overdue (New treatment p			
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 treatme			
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 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-

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 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 (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> </tbody> </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																																							
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Tue 11/09/2018	2.4	1.07 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 (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> </tbody> </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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Warfarin	Sun	Mon	Tue	Wed	Thu	Fri	Sat																																							
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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 CHA₂DS₂VASc 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		
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		

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
			<div style="display: flex; align-items: center; gap: 5px;"> <input style="width: 80px;" type="text" value="17/05/2019"/> <input type="calendar"/> at: <input style="width: 30px;" type="text" value="09"/> : <input style="width: 30px;" type="text" value="30"/> </div> <small>24hr format</small>
			<small>NB Please check this appointment is made in your clinic diary or hospital administration system.</small>
Unit No:	F5	to be completed at	<input style="width: 100%;" type="text" value="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:	<input type="text" value="In Person"/>	
Therapeutic Indication:	<input type="text" value="ATRIAL FIBRILLATION NON VALVULAR"/>	
Qualifying Risk Factors:	<input type="checkbox"/> Aged \geq 65 with diabetes mellitus, coronary artery disease or hypertension	
	<input type="checkbox"/> Aged 75 or over	
	<input checked="" type="checkbox"/> Left ventricular ejection fraction $<$ 40%	
	<input type="checkbox"/> Previous Stroke, transient ischaemic attack or systemic embolism (SEE)	
	<input type="checkbox"/> Symptomatic heart failure \geq NYHA Class 2	
Duration of use?	<input type="text" value="Long-term"/>	
Planned end date of current anticoagulant:	<input type="text"/> 	
Planned start date of Dabigatran:	<input type="text"/> 	
If switching from VKA, please enter the current INR:	<input type="text"/>	<input type="text"/> 
is the INR \geq 2?:	<input type="checkbox"/>	
Measured Creatinine Clearance:	<input type="text"/> mL/min	<input type="text"/> 

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="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	
<input type="button" value="Calculate Cockcroft-Gault CrCl"/>	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:

CHA₂DS₂-VASc score?

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
A₂	Age ≥ 75 years	2
D	Diabetes Mellitus	1
S₂	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

H	Hypertension? systolic blood pressure > 160 mmHg or uncontrolled	1
A	Renal Disease? (creatinine > 200 μM or > 2.6 mg/dL)	1
S	Liver Disease? (cirrhosis, bilirubin > 2xULN, AST/ALT/AP > 3xULN)	1
S	Stroke History?	1
B	Prior Major Bleeding or Predisposition to Bleeding?	1
L	Labile INR?	1
E	Age ≥ 65 years	1
D	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
			<input type="text" value="17/05/2019"/>  at: <input type="text" value="00"/> : <input type="text" value="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	<input type="text" value="(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:

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:	<input type="checkbox"/> Dementia <input type="checkbox"/> Fear of side-effects <input type="checkbox"/> Gastroesophageal Reflux Disease <input type="checkbox"/> Gastrointestinal Bleed <input type="checkbox"/> Lack of information <input type="checkbox"/> Lives alone <input type="checkbox"/> Multiple medications <input type="checkbox"/> Other <input type="checkbox"/> Prescriptions from several doctors

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.



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](#)

CHA₂DS₂-VASc score?

(None selected) ▼

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
A₂	Age ≥ 75 years	2
D	Diabetes Mellitus	1
S₂	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?

(None selected) ▼

H	Hypertension? systolic blood pressure > 160 mmHg or uncontrolled	1
A	Renal Disease? (creatinine > 200 uM or > 2.6 mg/dL)	1
A	Liver Disease? (cirrhosis, bilirubin > 2xULN, AST/ALT/AP > 3xULN)	1
S	Stroke History?	1
B	Prior Major Bleeding or Predisposition to Bleeding?	1
L	Labile INR?	1
E	Age ≥ 65 years	1
D	Medication Usage Predisposing to Bleeding? (Antiplatelet agent / NSAIDs)	1
D	Alcohol Usage History?	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

! 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

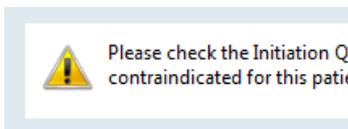
Contraindications are highlighted in **RED** on the Initiation Questionnaire and shown on the Questionnaires tab summary comment. Pop-ups will also highlight contraindications on attempting to proceed with a plan for DOAC therapy.



Questionnaire screen shows a red **X**

Summary shows contraindicated

Questionnaire Type	Entry date	Summary
Dabigatran Initiation	28/03/2014	Contraindicated
Dabigatran Initiation	28/03/2014	CYC 100 RL/100 (90L - 45 y&A, Wt. 50 kg) - Dose: 100 mg twice daily



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: $1.23 \times (140 - \text{Age (years)}) \times \text{Body Mass (kg)} \times (x 0.85 \text{ if female})$

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: 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:

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	PIRN	Event	Severity
03/09/2012	Dabigatran 150 mg once daily	Current	Lancaster, Eric	12/06/1934		9878542	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 / 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 Q

Selection: Active patients Patients with active Treatment Plans for selected app.area

Search for:

Last name	<input type="text"/>	First name	<input type="text"/>
NHS No +	<input type="text"/>	Town	<input type="text"/>
Post Code	<input type="text"/>	Sex	-All-
Date of Death	<input type="text"/>	Language	<input type="text"/>
Home phone	<input type="text"/>	Mobile phone	<input type="text"/>
Email address	<input type="text"/>	Next of kin nam	<input type="text"/>

	Last name	First name	Age	MRN	NHS No +	Verified	Dateofbirth	Address 1	Address 2
▶	ADAMS	John	58	999	012 345 6789	☑	01/01/1959	11 SPRACKLANDS	Highgate
▶	ADAMS	Julie	11	H23023	012 345 6789	☐	01/08/2006	39 MAES YR & HAF	
▶	ADAMS	Mary	55	M47904	4560508360	☐	18/01/1962	6 MARTIN AVE	TYNEMOUTH
▶	ADAMS	Tom	71	S62778	8709784337	☐	16/10/1946	FLAT 2	
▶	ADAMSON	Fred	86	987654			29/04/1931	4 The Square	Milnthorpe
▶	ADD	history	45	33333	468 074 9709	☐	01/01/1972		
▶	ALDERSON	Eddie	70	D78137			02/03/1947	12 ROCKCLIFFE GDNS	ASHFORD
▶	ANDERSON	Luke	107	T18164	1582273540	☐	20/03/1910	6 HAULFRYN	
▶	AND		80	P67190	3158256668	☐	09/05/1937	5 MARKET PLACE	ROTHWELL

⏪
⏩
↓ Down
➕ New
💾 Save
🖨 Print

Click on New ●

1. Check if the patient details are already on DAWN AC

Search Q

Selection:

Search for:

Last name	<input type="text" value="smith"/>
National No +	<input type="text"/>

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 (None selected)

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 (None selected)

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 Low

Pref. Clinic Default Clinic

Phone - home

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.

The screenshot displays a patient record for Wilma Watters, Female, ID 4S-1265. The interface includes several sections:

- Patient Details:** 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:** (Empty list)
- Quick Notes:** Add Quick Note button.
- Navigation Tabs:** Dosing, Contacts, Letters, Drugs, Events, Procedures, Graph, History, Personal, Treatment plans, **Questionnaires** (highlighted).

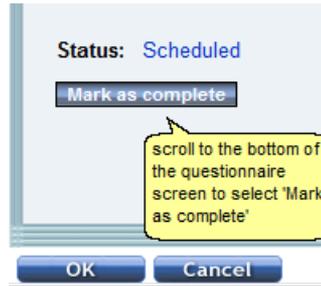
The 'Due Date' will default to today but you can change this if you wish. If you are not ready to answer all the questions, simply click OK and the details may be completed later.

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
			<input type="text" value="24/05/2019"/> at: <input type="text" value="09"/> : <input type="text" value="00"/> <small>24hr format</small>
			NB Please check this appointment is made in your clinic diary or hospital administration system.
Unit No:	4S-1265	to be completed at	<input type="text" value="(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.

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

Status Not Scheduled:

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.



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 Scheduled as above:
UnSchedule

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

Prof. 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.

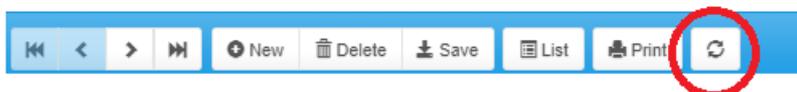
Status: Scheduled

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

A blue rectangular button with the text "Unlock to edit" in white.

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.

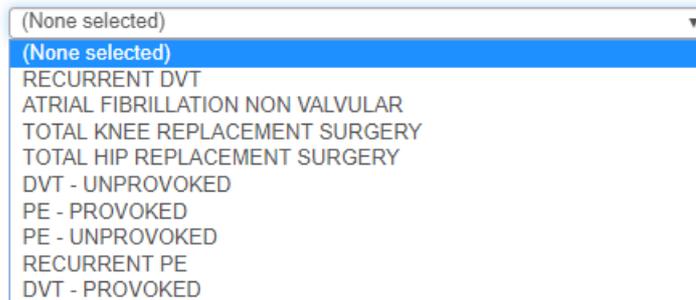
(back to Initiation Questionnaire page)

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:

A screenshot of a dropdown menu. The menu is open, showing a list of options. The top option is "(None selected)" and is highlighted in blue. Below it are several other options: "RECURRENT DVT", "ATRIAL FIBRILLATION NON VALVULAR", "TOTAL KNEE REPLACEMENT SURGERY", "TOTAL HIP REPLACEMENT SURGERY", "DVT - UNPROVOKED", "PE - PROVOKED", "PE - UNPROVOKED", "RECURRENT PE", and "DVT - PROVOKED". The menu has a small downward arrow in the top right corner.

(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 ≥ 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:		$1.23 \times (140 - \text{Age (years)}) \times \text{Body Mass (kg)} \times (x 0.85 \text{ if female})$	
Cockcroft D, Gault MD. Nephron, 16:31-41, 1976		serum creatinine ($\mu\text{mol/L}$)	
Serum Creatinine:	<input type="text" value="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		
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.		

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
<p>Add a new record → 1 - 2 / 2</p>				
Questionnaire Type	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:

<input type="checkbox"/>	AMIODARONE	CLOPIDOGREL: Close clinical surveillance (looking for signs of bleeding or anaemia)
<input type="checkbox"/>	ASPIRIN	
<input type="checkbox"/>	CLARITHROMYCIN	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
<input checked="" type="checkbox"/>	CLOPIDOGREL	
<input type="checkbox"/>	OTHER NSAIDs	
<input checked="" type="checkbox"/>	QUINIDINE	
<input type="checkbox"/>	TICAGRELOR	
<input type="checkbox"/>	VERAPAMIL	

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:

<input type="checkbox"/>	Abciximab
<input type="checkbox"/>	Eptifibatide
<input type="checkbox"/>	Heparin
<input type="checkbox"/>	Prasugrel
<input type="checkbox"/>	Sinthrome
<input type="checkbox"/>	Ticagrelor
<input checked="" type="checkbox"/>	Warfarin
<input type="checkbox"/>	(Other)

If (other), please give details:

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 (CrCl $<$ 30ml/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 CHADS₂ and HASBLED scores

CHA₂DS₂-VASc and HASBLED scores may be optionally recorded from the dropdown menus on your questionnaire.

CHA₂DS₂-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 (CHA₂DS₂-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.mhrs.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:

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 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: <input type="text"/>

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 algorithm, Target range, Start date, and Duration. The 'Dosing and Tablet Options' section includes 'Use Dosing Regime?' (set to '(None selected)'), 'Use Customised Tablet options?', Anticoagulant (Warfarin), Record Dose As (Weekly Total), Brand (UK Genetic), Split Tablet Intoc (Half a Tablet), and Tablet Strength (Pills (1 mg)). The 'Initial Status' section has radio buttons for 'Set the status of the TreatmentPlan to Active', 'Set the status of the TreatmentPlan to Admitted', and 'Decide later'. A 'Finish' button is circled in red at the bottom.

2. Activate a treatment plan

The screenshot shows the patient record for Wilma Watters. The 'Diagnosis' section displays 'ATRIAL FIBRILLATION NON VALVULAR' with a 'Target Range' of 'Non-VKA' and a 'Start Date' of '24/05/2019'. Below this, a 'Treatment Plan' section shows 'New' with a '2. Click on the Treatment Plan link here and then click on the Activate button to activate.' annotation. The 'Questionnaires' section shows 'Add a new record' with a '1. add an Initiation Questionnaire' annotation.

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 date	24/05/2019 
Duration	Indefinite
Target range	Non-VKA
Anticoagulant	Dabigatran 150 mg Once Daily
Referring GP	-
Consultant	-

stopped

Start date	01/05/2019 
Duration	Treatment stopped - Stopped at: 24/05/2019 11:41
Target range	Non-VKA
Anticoagulant	Dabigatran 220mg once daily
Referring GP	-
Consultant	-
Notes	Increased 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?

Referral Transport Admission Notes VGR History **Audit**

[This treatment plan](#) Therapy phases Test 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 Diagnosis: ORTHO_HIP - TOTAL HIP REPLACEMENT SURGERY (24/05/2019)

Start date: 24/05/2019 First seen date:

Duration: Short Term 14 Weeks Days

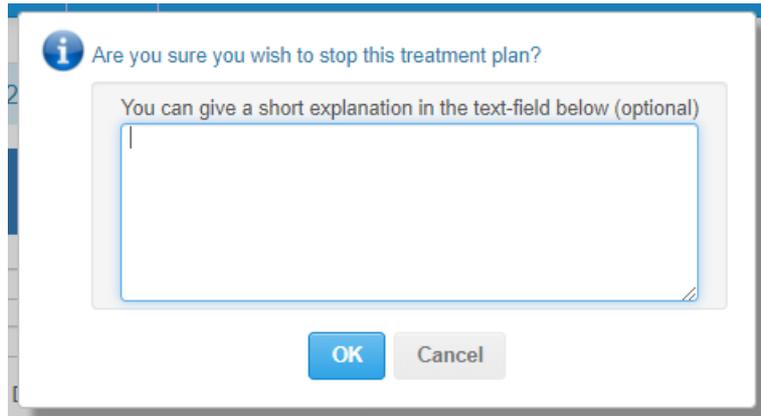
14 wks. Due to stop: 30/08/2019

Preferred clinic: Default Clinic (4S Dawn Clinical Software)

Preferred time: From until

Status: active

suspend **stop** admit



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 i
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 i
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?

Referral
Transport
Admission
Notes
VGR
History
Audit

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

at: :

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) ▼

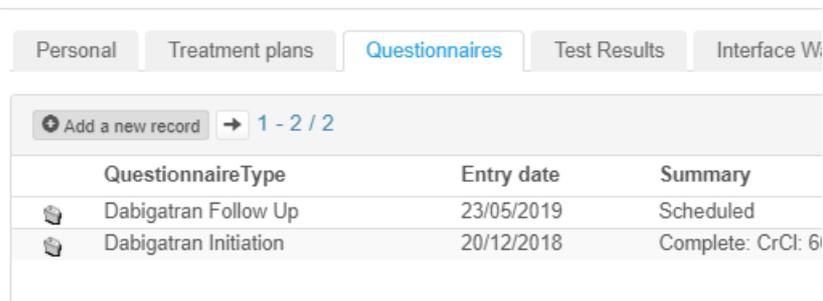
Status: Scheduled

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.



The screenshot shows a software interface with several tabs: 'Personal', 'Treatment plans', 'Questionnaires', 'Test Results', and 'Interface W'. The 'Questionnaires' tab is active. Below the tabs is a header bar with 'Add a new record' and a pagination indicator '1 - 2 / 2'. Below this is a table with three columns: 'QuestionnaireType', 'Entry date', and 'Summary'.

QuestionnaireType	Entry date	Summary
 Dabigatran Follow Up	23/05/2019	Scheduled
 Dabigatran Initiation	20/12/2018	Complete: CrCl: 6

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 CHA₂DS₂-VASc and HASBLED scores
- notes for planned procedures or other comments

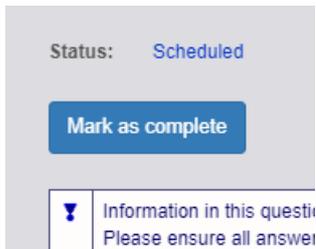
Please Note - Not all of the above items are on the Apixaban Audit Tool. See Apixaban Audit Tool - Completing a Follow-up for details.

If you cannot answer some questions, simply click OK or Save and come back later to complete the answers.



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.

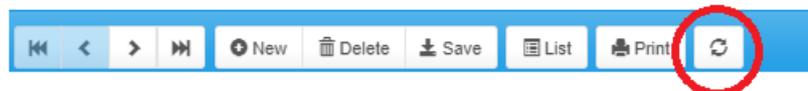
Then click on 'Mark as complete' and then schedule another Follow Up for your patient if relevant. See details of the Follow-up Questionnaire. (section 4.3.1 and section 4.3)



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
3. save your changes

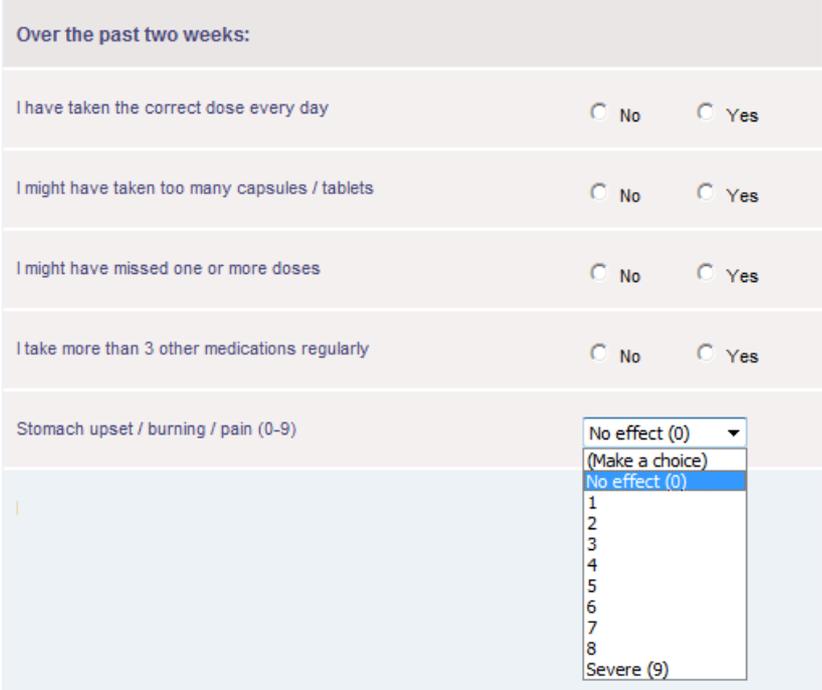


NB - unlocking a previous questionnaire to edit it may cause the details to be updated with subsequent changes to the patient details. For example, if the patient was previously on an interacting drug which was later removed from your DAWN AC database, the drug would still be stored in the old completed 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)	<input type="text" value="No effect (0)"/> (Make a choice) No effect (0) 1 2 3 4 5 6 7 8 Severe (9)	

(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 $\mu\text{mol/L}$. 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.

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 know 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:

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 CHADS₂ and HASBLED scores

CHA₂DS₂-VASc and HASBLED scores may be optionally recorded from the dropdown menus on your questionnaire.

CHA₂DS-₂VASc 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 (CHA2DS2-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: <input type="text"/>

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.mhrs.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. In 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 Personal tab?	You may need to click on 'Activate' or Re-activate'
2. Is an Initiation Questionnaire showing with a dose on the Questionnaires 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:

Pref. Clinic:

Phone:

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	All follow-ups & Apixaban Audit Tool	You can choose what to display here and what website to link to. To change them, edit the Event Reporting options in the GeneralLookupCategory, ask 4S Support for assistance.
Web links for Regime Info	All questionnaires & Apixaban Audit Tool	For example: <div style="border: 1px solid #add8e6; padding: 5px; margin: 5px 0;"> <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"> Apixaban Tablets 2.5 mg Apixaban Tablets 5 mg </div> To change them, you need to edit the DrugCoURL options in the GeneralLookupCategory, ask 4S Support for assistance.
Replace Chads2 with CHA2DS-2VASc 2	Rivaroxaban/ Edoxaban candidate & follow-up questionnaires	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	All questionnaires	This field can now be hidden using the system setting - <i>DOAC_DisplaySuggestedDose</i> . 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 hide the <i>Suggested Dose</i> if you make significant changes to the Permitted Regimes table.
Renal Limit for Contraindication	Dabigatran candidate & follow-up only	There is now a system setting entitled <i>DOAC_Renal_Contra_Limit_DABIG</i> 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</p>	<p>Rivaroxaban/ Apixaban candidate only</p>	<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"> • the Day 7 (Apixaban)/Day 22 (Rivaroxaban) dates are not displayed • the suggested dose is the maintenance one rather than the "induction then maintenance" one
<p>Education</p>	<p>All questionnaires</p>	<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>
<p>Medication Procurement Due to insurance issues</p>	<p>All questionnaires</p>	<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>
<p>Extra fields that can be hidden if</p>	<p>All questionnaires</p>	<p>In addition to the fields described above, the following fields can also be hidden if not required within your organisation:</p>

not required		<ul style="list-style-type: none"> • Yellow Card (image and link) • Who will manage AC? • Egfr • Chads/CHA2DS2VASC • HASBLED <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 fields for Primary Diagnosis (ATRIAL FIBRILLATION), Start date (23/04/2019), Duration (Long Term), Preferred clinic (Default Clinic), and Preferred time. The Status is 'active'. A red arrow points to the 'stop' button, which has 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 <input type="text"/> until <input type="text"/>
Status	active
<div style="border: 1px solid black; padding: 2px; display: inline-block;">First STOP any existing Treatment plan</div> <input type="button" value="stop"/> <input type="button" value="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 ▾ | [+ Update](#) ▾

 Barnaby, Fitzherbert - Male - 06/06/1966 - F5 - 836 Dawn Villas, The Square, Milnthorpe

Risk Class	Low ▾
Prof. 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
Risks	

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'

The screenshot shows the 'List View' interface for non-VKA patients. The top navigation bar includes tabs for 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, and Treatment Notes. The 'Filter' dropdown is set to 'With Overdue', showing 6 records found. The table below lists patient details including Name, Hospital no., Age, Appointment, Regime, Questionnaire, and Status. Annotations indicate that the 'Overdue' filter is selected and that the status column indicates whether a patient has no appointment scheduled, a scheduled appointment, or an overdue appointment.

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



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

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

Questionnaire Type	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

Questionnaire Type	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](#) [Groups](#)

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

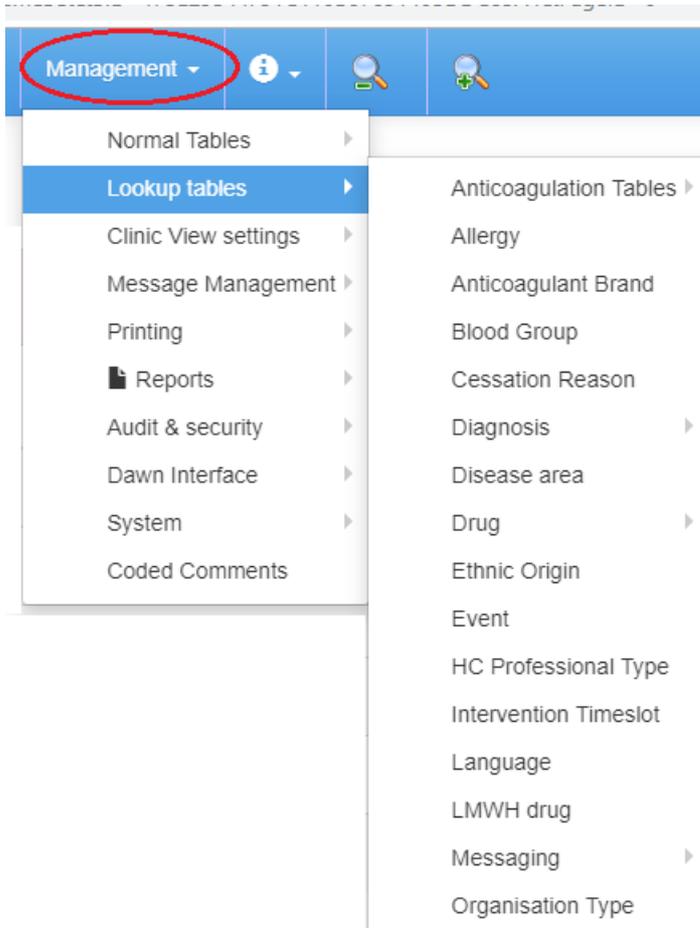
Description	Created
Dabigatran DNA for Follow up	23/05/2019 16:06

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

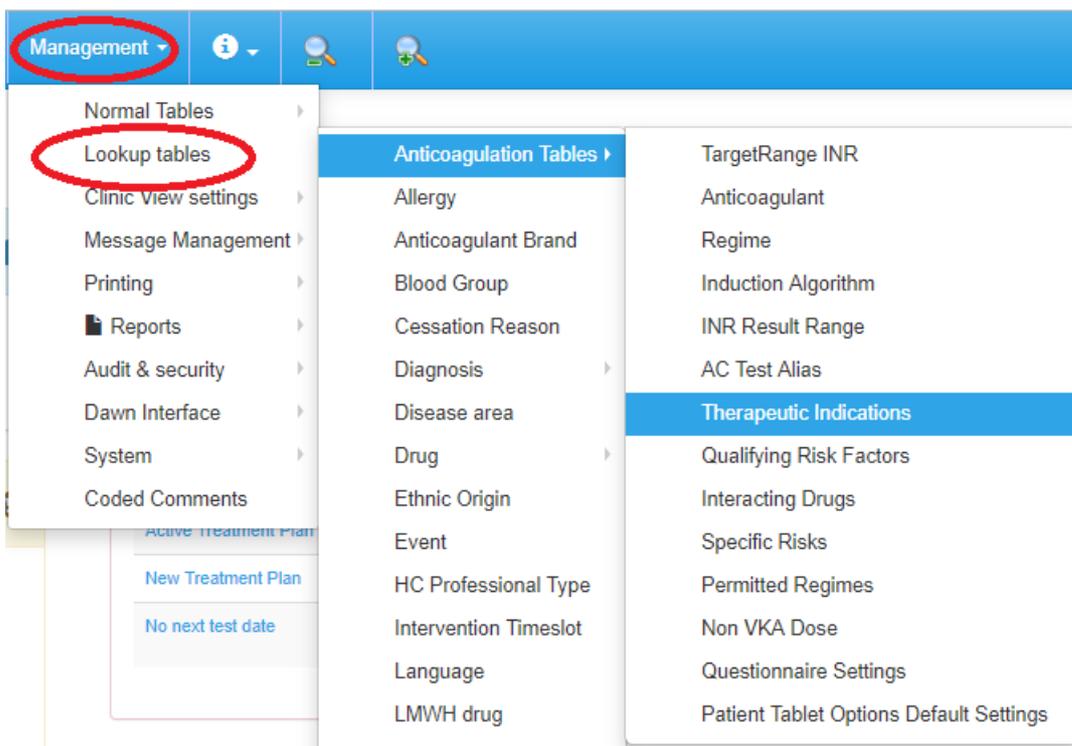
 **It is very strongly recommended that you do not make Therapeutic Indication & Regime changes before confirming them with the support team at 4S.**

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:



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

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.

The screenshot shows the 'Management' menu with 'Lookup tables' circled in red. The 'Risk Management' sub-menu is also open, showing 'Risk' as the selected option.

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	<input type="text" value="220"/>	
 Dabigatran 150 mg Once Daily ▼	150	mg	Once Daily	<input type="text" value="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	

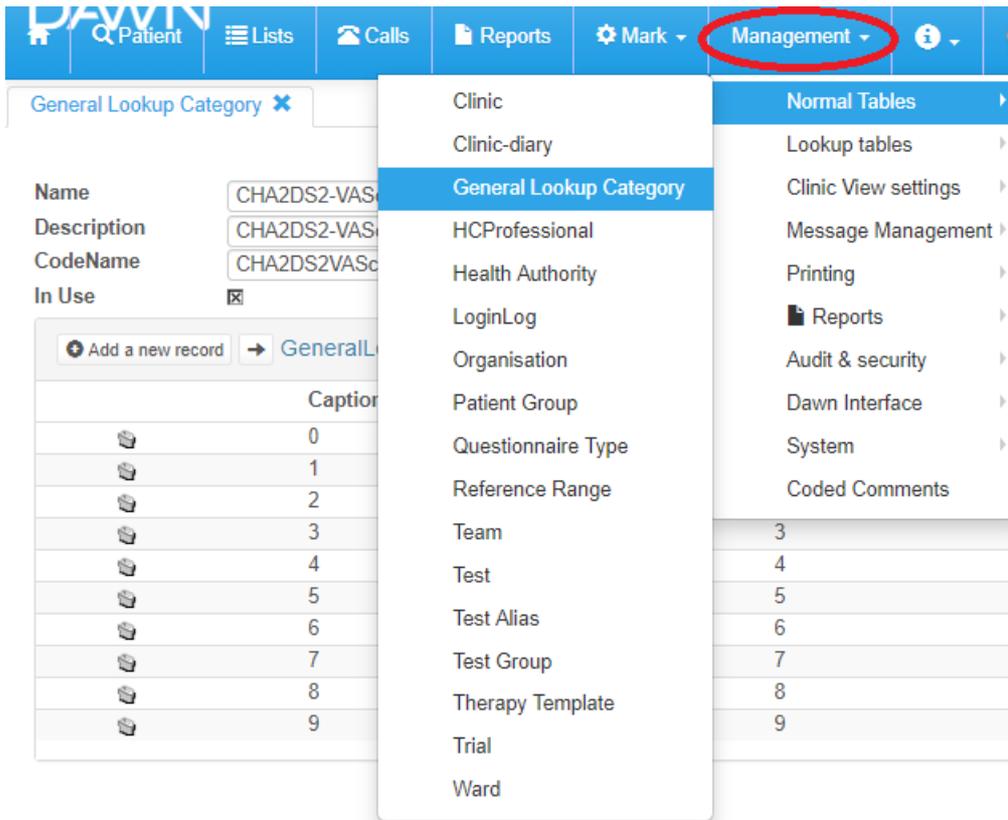
NB - deletion of an entry for Permitted Regimes may result in multiple patients not getting a dose or next appointment.

(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 study¹ 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.

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

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. target – the middle of the latest patient target range i.e. 2.5 for range of 2.0 – 3.0.

τ - 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.

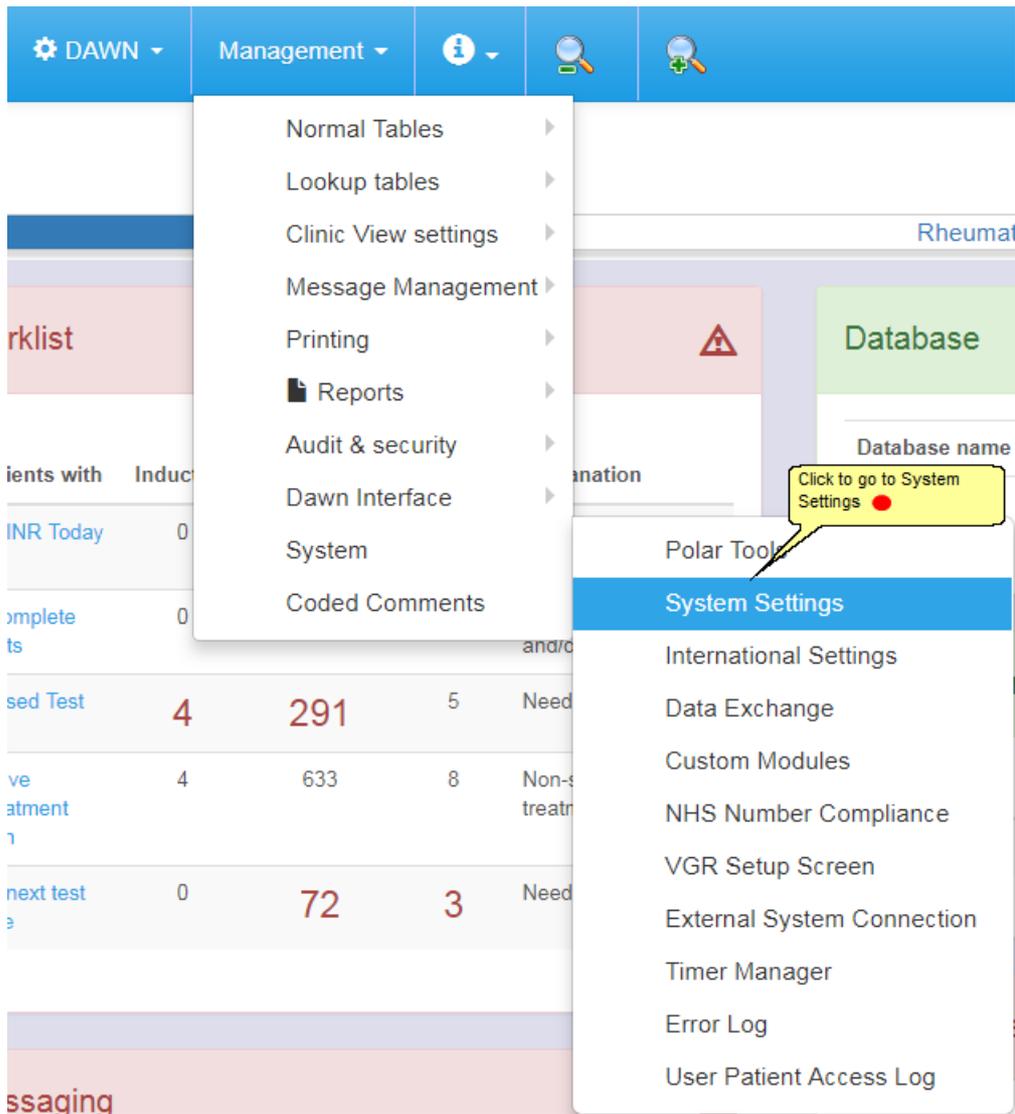
The VGR calculation is only carried out where the patient has at least the number of non-zero INRs recorded in the 3 month period specified on the VGR setup screen. This number defaults to 2 and must be at least 2.

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.

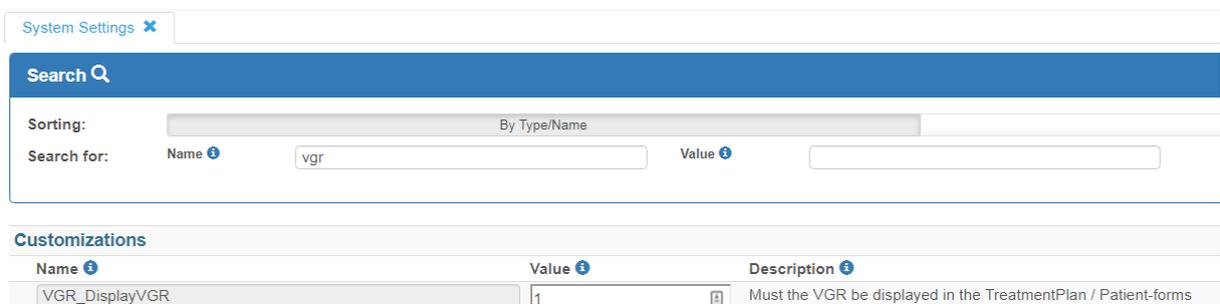
23.2 Enabling VGR Functionality

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.



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.

The screenshot displays the DAWN Patient Details interface for a patient named ADAMS, Julie. At the top, there is a navigation bar with icons for Patient, Lists, Calls, Reports, DAWN, and Management. Below this, the patient's name and date of birth are shown. The VGR section features two green 'Above Average' indicators for TIR% and VGR, and a 'Max Diff' field with a value of 1.7. A tooltip is visible over the VGR indicator, stating: '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.' The patient is identified as a 'PAEDIATRIC PATIENT' with a risk class of 'AF & CARDIOVERSION ...'. The target range is 2.0 - 3.0, and the start date is 26/08/2006. The anticoagulant is Warfarin 2 & 1mg Tablets With Halves Daily. A risk is noted as 'current or recent gastrointestinal ulceration'. The interface also shows a dosing schedule for Warfarin and Lovenox, and buttons for 'Accept dose' and 'New INR/Dos'.

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.



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.



Do not use the Percentage Time in Range and VGR figures in isolation to make any clinical decisions.

WARNING

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 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.



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

Home 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
<input type="text" value="Above Average"/>	<input type="text" value="#66B050"/>	<input type="text" value="0.1"/>
<input type="text" value="Average"/>	<input type="text" value="#FFC000"/>	<input type="text" value="0."/>
<input type="text" value="Below Average"/>	<input type="text" value="#FF0000"/>	<input type="text" value="0."/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

6 Month %TIR Ranges

Caption	Colour	Min Value
<input type="text" value="Below Average"/>	<input type="text" value="#FF0000"/>	<input type="text" value="0.1"/>
<input type="text" value="Average"/>	<input type="text" value="#FFC000"/>	<input type="text" value="52"/>
<input type="text" value="Above Average"/>	<input type="text" value="#66B050"/>	<input type="text" value="73"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Minimum Number of INRs in 3 Month Period to Calculate VGR (min 2):

Minimum Number of INRs in 6 Month Period to Calculate 6 Month %TIR:

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_DisplayGender	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_MaxRecordsInTreatmentList		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 not configured to send emails in plain text format (otherwise the tags are rendered as part of the text, e.g, IMPORTANT test result instead of IMPORTANT test result .			
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

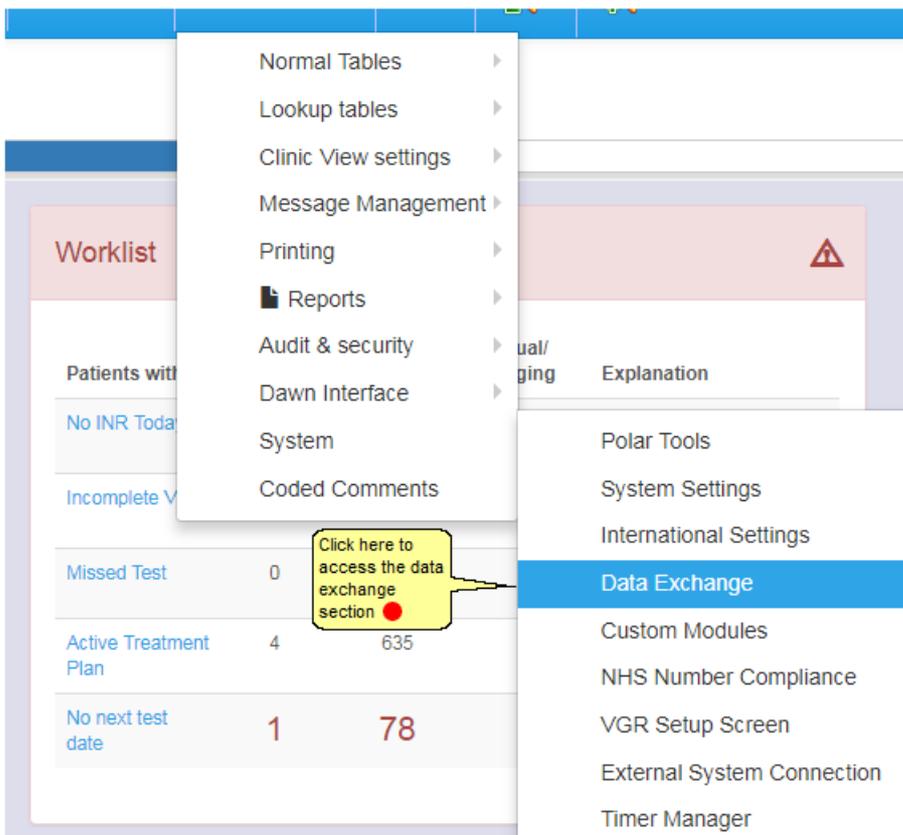
Specify the interval in minutes at which the system should check for updates to system settings	SystemSettingCheckForUpdatesInterval		1
Last Date / Time of Timed Message which processed	TimedMessagesLastRunDate Time		2019-02-21 09:32:18
Process any timed messages missed in the last week when service 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)
Pheninidione (generic) (Phenindix)
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

Polar DataExchange ✕

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

The screenshot shows a web interface for importing data. At the top, there is a breadcrumb 'Polar DataExchange' with a close icon. Below it are three tabs: 'Export', 'Import' (which is active), and 'Customized import'. The main area contains the text 'Please give the file to import:'. Underneath this text are two buttons: 'Choose File' and 'No file chosen'. Below the 'Choose File' button 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'.

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