



DAWN Hold Monitor User Guide



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Change History

Version	Date	Author	Details
1.0	25/05/2017	Jonathan Stephenson	Creation of Document
2.0	25/05/2017	Tracy Fairhurst	Updated to add front page, change history, table of contents etc.
3.0	24/08/2017	Steven Kelly	Included test results and demographics hold reasons and actions
4.0	31/07/2019	Melissa Newton	Add warning to 'Deleting messages' section and update text around Hold Monitor Reasons
5.0	04/11/2019	Steven Kelly	Added section on the interface warnings tab

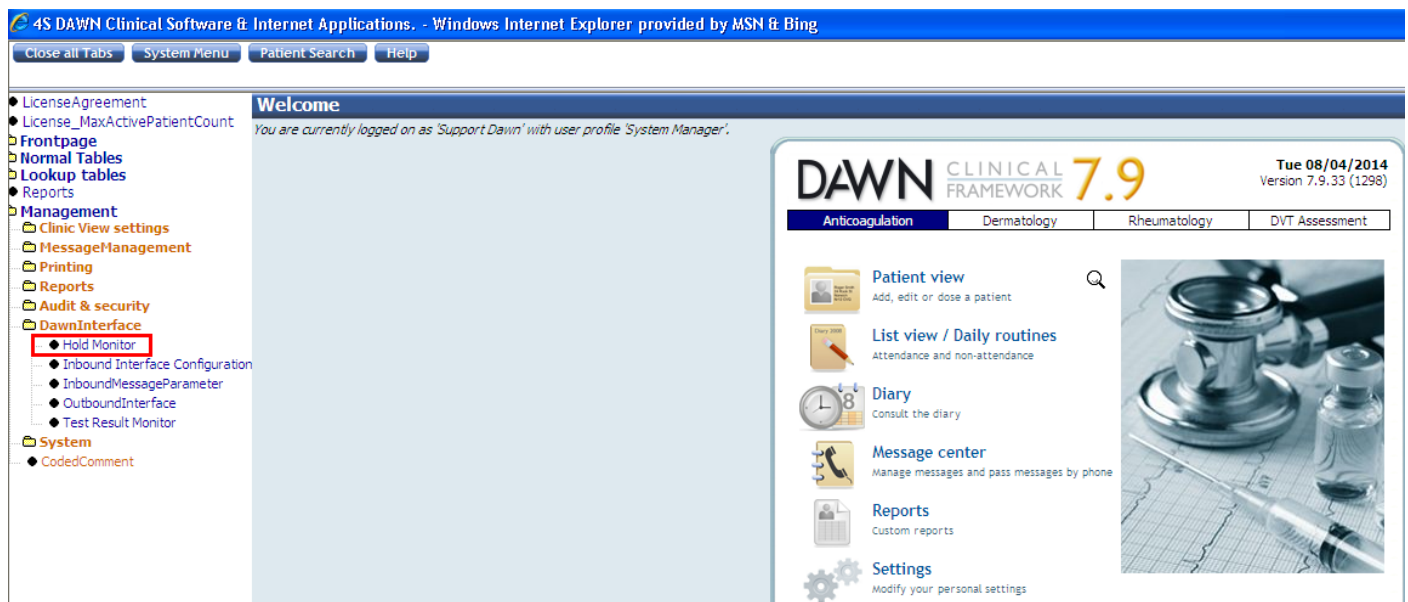
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Hold Monitor Overview

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.

Assuming the user has the relevant permissions to access the Hold Monitor, it is located under the System Menu (F5) > Management > Dawn Interface menu option.



WARNING

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 on 015395 63091 or support@4s-dawn.com

On selecting the Hold Monitor menu option, the user is presented with the Hold Monitor screen:

Hold Monitor

Sorting: **Oldest first** | Newest first | ByUnitNo | Last Name | ByMessageType | By Hold Reason
Search for: Disease area: HoldReason:
LastName: UnitNo:
SEARCH

Reprocess all 4 records
Delete all 4 records
Delete marked records

	Patient	Message Type	Inserted Date	Last Name	First Name	Unit No	National No	Date Of Birth	Hold Reason
	(None selected)	ADT^A04	14/02/2014 1	Wooster	Eric	77337722			No match found for patient with Unit No 77337722
	Flintstone William (01/04/1966)	ORU^R01	07/04/2014 1	Flintstone	William	54646546	012 345 6789	01/04/1966	Existing result found for same date
	Pepper Peter # 11772288 /	ORU^R01	07/04/2014 1	Pepper	Peter	11772288		01/04/1966	Existing result found for same date
	Rubble Trevor (04/02/1966)	ORU^R01	07/04/2014 1	Rubble	Trevor	11229988		04/02/1966	The patient's treatment plan is suspended

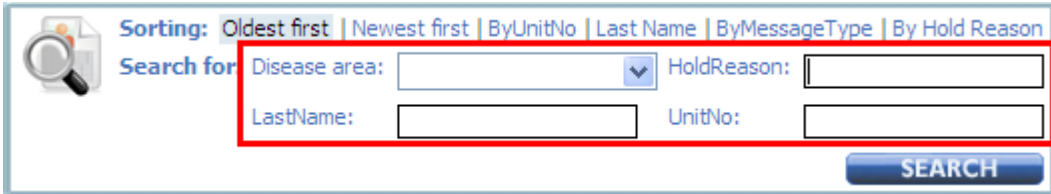
The screen above shows a list of patients who had received messages but could not be matched and updated with a patient in DAWN. This can be for various reasons listed in the Hold reason column in the Hold Monitor.



NOTE: Different/extra columns such as Phone number etc, can be added to the Hold Monitor if required. Please contact 4S Support staff for further details

Searching For & Displaying Records

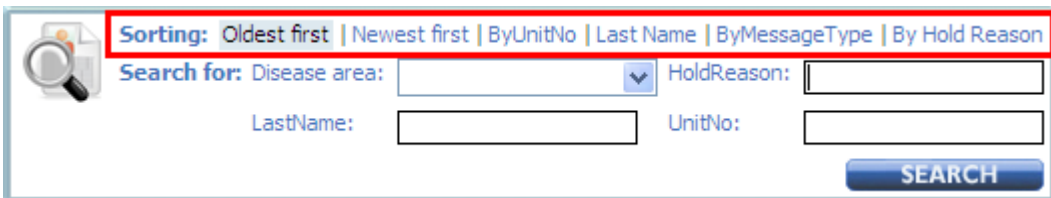
Located at the top of the Hold Monitor screen is a panel which allows the user to search for and display specific records in the Hold Monitor:



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 with 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.

Hold Monitor									
Sorting: Oldest first Newest first ByUnitNo Last Name ByMessageType By Hold Reason Search for: Disease area: <input type="text"/> HoldReason: <input type="text" value="Existing result"/> LastName: <input type="text"/> UnitNo: <input type="text"/>									
Application Area	Patient	Message Type	Inserted Date	Last Name	First Name	Unit No	National No	Date Of Birth	Hold Reason
Anticoagulation	Flintstone William (01/04/1966)	ORU^R01	07/04/2014 1	Flintstone	William	54646546	012 345 6789	01/04/1966	Existing result found for same date
Anticoagulation	Pepper Peter # 11772288 /	ORU^R01	07/04/2014 1	Pepper	Peter	11772288		01/04/1966	Existing result found for same date

Reviewing the Messages

Each message in 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 instead 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.



As an aid to reviewing the message, a more detailed view of the message can be seen by clicking on the details button next to the message:

Hold Monitor

Sorting: Oldest first | Newest first | ByUnitNo | Last Name | |

Search for: Disease area: HoldF
 LastName: UnitN

Reprocess all 2 records | Delete all 2 records | Delete marked records

	Application Area	Patient	Message Type	Inserted Date	Last Name	First Name	Unit No
	Anticoagulation	Flintstone William (01/04/1966)	ORU^R01	07/04/2014 1	Flintstone	William	54646546
	Anticoagulation	Pepper Peter # 11772288 /	ORU^R01	07/04/2014 1	Pepper	Peter	11772288

The user will now be presented with the details view of the message containing the full message details:

Hold Monitor

Application Area: Anticoagulation

Patient: Flintstone William (01/04/1966)

Message Type: ORU^R01

Inserted Date: 07/04/2014 1

Last Name: Flintstone

First Name: William

Unit No: 54646546

National No: 012 345 6789

Address Line 1: 4 The Square

Town: Milnthorpe

County: Cumbria

PostCode: LA7 7QJ

Date Of Birth: 01/04/1966

Date Of Death:

Result Datetime: 2014-04-07:11:10:00


Sample ID: GF443999/A12

TestName: INR

Result Numeric: 2.6

Result Status: F

Hold Reason: Existing result found for same date



Reprocess 

To toggle back to the original list of messages, simply click on the 'To list' button at the bottom of the screen:



Please note that the information shown on both the list and details view of the Hold Monitor is configurable. Should you wish to review and maybe amend the information that is shown on these screens, please contact 4S Support to discuss.

Where the interface has been able to locate the appropriate patient within DAWN, that patient will appear in the 'Patient' column with an arrow icon being displayed next to the patient name:

Hold Monitor							
Sorting: Oldest first Newest first ByUnitNo Last Name ByUnitNo Search for: Disease area: <input type="text"/> HoldReason: <input type="text"/> LastName: <input type="text"/> UnitNo: <input type="text"/>							
Reprocess all 2 records Delete all 2 records Delete marked records							
Application Area	Patient	Message Type	Inserted Date	Last Name	First Name	Unit No	
Anticoagulation	Flintstone William (01/04/1966) 	ORU^R01	07/04/2014 1	Flintstone	William	54646546	
Anticoagulation	Pepper Peter # 11772288 / 	ORU^R01	07/04/2014 1	Pepper	Peter	11772288	

Clicking on the icon will take the user directly to the patient record in DAWN, allowing the user to further investigate the reason behind the message. Any messages in the Hold Monitor for a patient are also displayed on the 'Interface Warnings' tab on the patient screen:

Flintstone, William - 01/04/1966 - 54646546 - 012 345 6789 / 02 - 4 The Square, Milnthorpe

Risk class: High
 Pref. clinic: AC Clinic (4S Dawn Clinical Sof)
 Phone: 015395 63091 - home
 Age: 48

Diagnosis: ATRIAL FIBRILLATION
 Target Range: 2.0 - 3.0 (2.5 Target)
 Start date: 04/12/2013 - Indefinite
 Anticoagulant: Warfarin Same Dose Daily (1, 3 & 5mg Tablets)
 Treatment Plan: 1 of 1 active

Dosing: INR: Date: 28/04/2014
 Scheduled for Mon 28/04/2014, 08:00 - 17:00 in clinic: AC Clinic Reschedule manually
 No warnings

Treatment notes

IN (dose zero) Dose: 0.00 d
 Status: Scheduled Next:
 Accept INR | DNA | Un-schedule

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

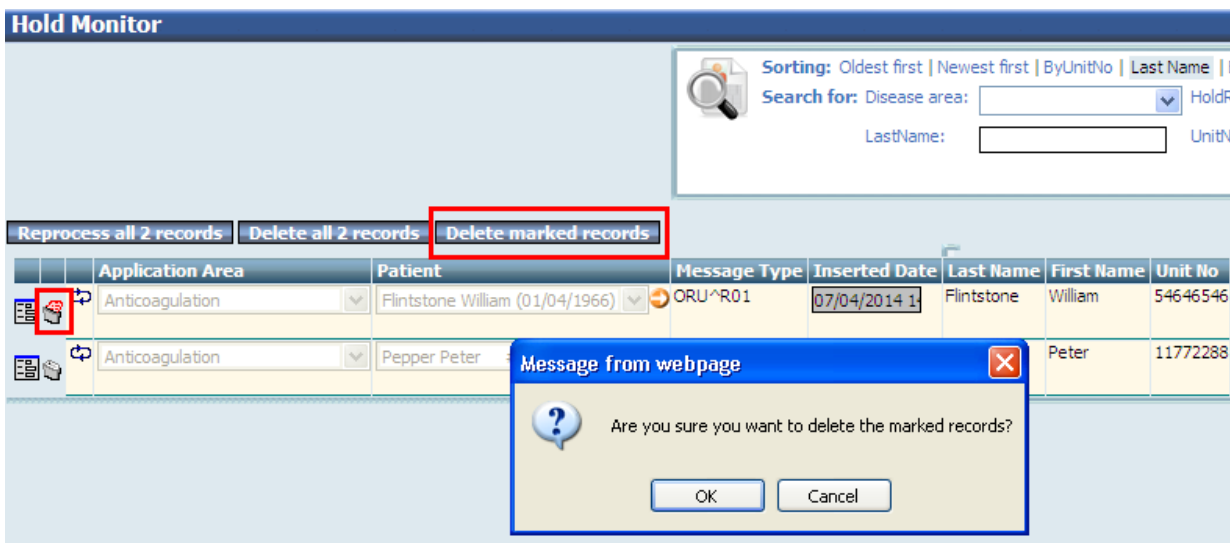
ResultDatetime	ResultSample	ResultTestName	ResultNumeric	ResultCharacter	HoldReason
2014-04-07:11:10:00	GF443999/A12	INR	2.6	2.6	Existing result found for same date

Deleting Messages From The Hold Monitor



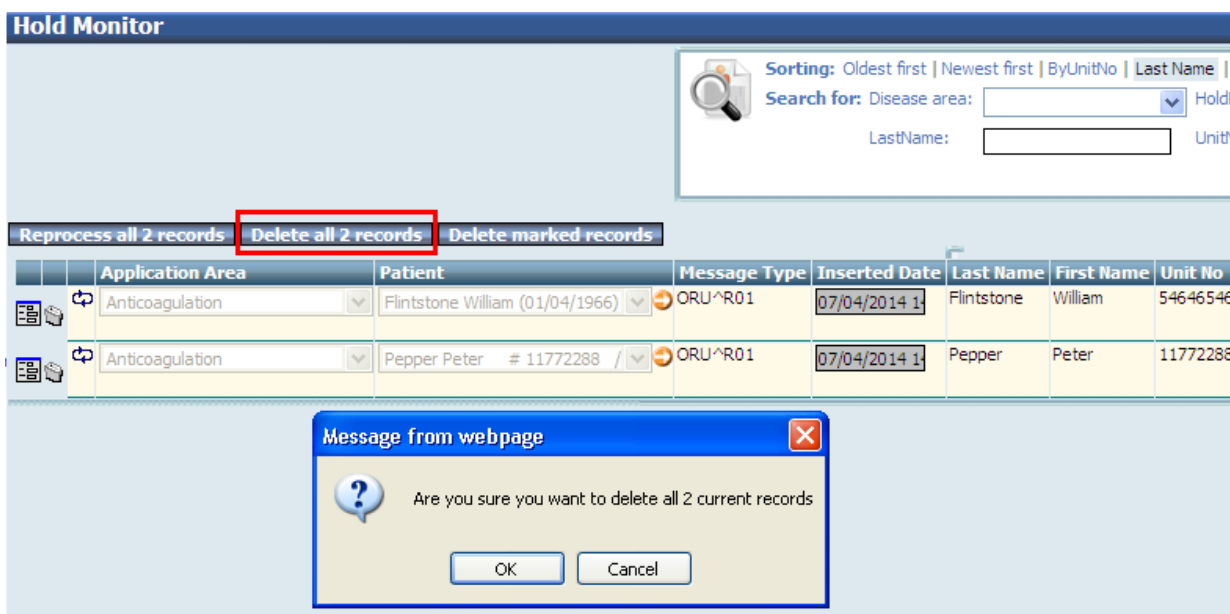
Please note, this step should not be done lightly. Only delete messages when you have confirmed that there is no further action required for any of the messages. If you are unsure, contact the DAWN support team on support@4s-dawn.com before you delete any messages.

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:



The screenshot shows the 'Hold Monitor' interface. At the top, there are sorting options: 'Sorting: Oldest first | Newest first | ByUnitNo | Last Name'. Below this is a search bar with 'Search for: Disease area:' and 'HoldR' dropdown, and input fields for 'LastName:' and 'UnitNo:'. A toolbar contains three buttons: 'Reprocess all 2 records', 'Delete all 2 records', and 'Delete marked records'. The 'Delete marked records' button is highlighted with a red box. Below the toolbar is a table with columns: Application Area, Patient, Message Type, Inserted Date, Last Name, First Name, and Unit No. The first row shows 'Anticoagulation' for 'Flintstone William (01/04/1966)' with message type 'ORU^R01' and date '07/04/2014 1'. The second row shows 'Anticoagulation' for 'Pepper Peter' with message type 'ORU^R01' and date '07/04/2014 1'. A trash can icon is visible next to the first row. A dialog box titled 'Message from webpage' is open, asking 'Are you sure you want to delete the marked records?' with 'OK' and 'Cancel' buttons.

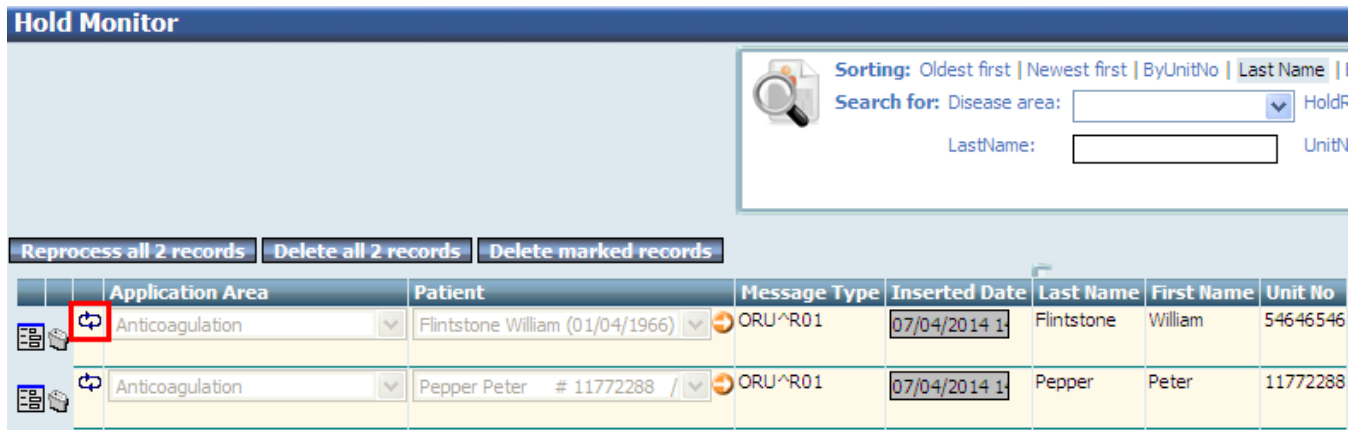
To delete all messages shown in the list, click on the 'Delete all records' button and then click 'OK' to the confirmation message to continue and delete the messages or 'Cancel' to return to the Hold Monitor without deleting the messages:



The screenshot shows the 'Hold Monitor' interface. At the top, there are sorting options: 'Sorting: Oldest first | Newest first | ByUnitNo | Last Name'. Below this is a search bar with 'Search for: Disease area:' and 'HoldR' dropdown, and input fields for 'LastName:' and 'UnitNo:'. A toolbar contains three buttons: 'Reprocess all 2 records', 'Delete all 2 records', and 'Delete marked records'. The 'Delete all 2 records' button is highlighted with a red box. Below the toolbar is a table with columns: Application Area, Patient, Message Type, Inserted Date, Last Name, First Name, and Unit No. The first row shows 'Anticoagulation' for 'Flintstone William (01/04/1966)' with message type 'ORU^R01' and date '07/04/2014 1'. The second row shows 'Anticoagulation' for 'Pepper Peter # 11772288 / /' with message type 'ORU^R01' and date '07/04/2014 1'. A dialog box titled 'Message from webpage' is open, asking 'Are you sure you want to delete all 2 current records?' with 'OK' and 'Cancel' buttons.

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:





Hold Monitor

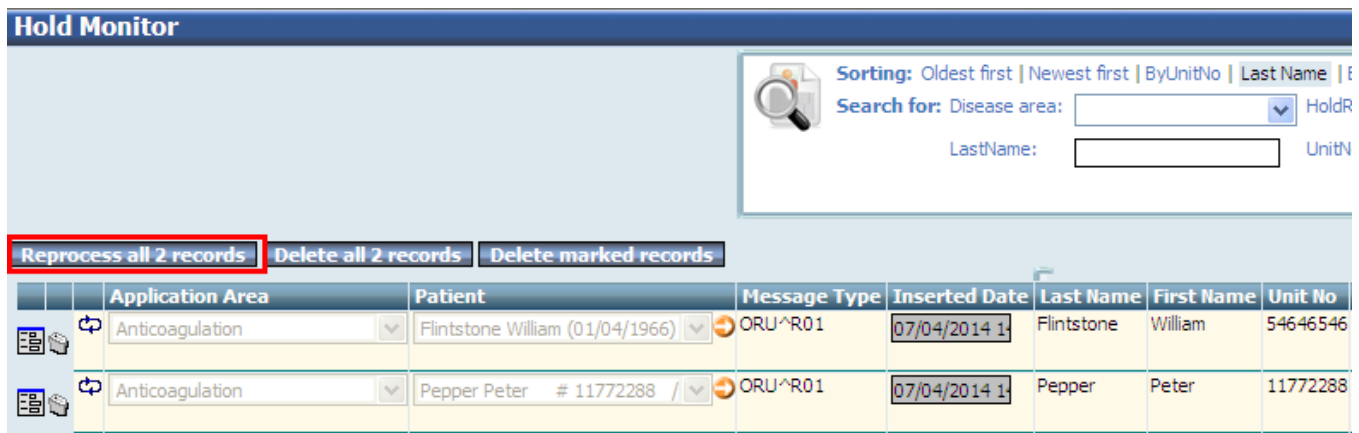
Sorting: Oldest first | Newest first | ByUnitNo | Last Name | |

Search for: Disease area: HoldF
 LastName: UnitN

Reprocess all 2 records | Delete all 2 records | Delete marked records

	Application Area	Patient	Message Type	Inserted Date	Last Name	First Name	Unit No
	Anticoagulation	Flintstone William (01/04/1966)	ORU^R01	07/04/2014 1	Flintstone	William	54646546
	Anticoagulation	Pepper Peter # 11772288 /	ORU^R01	07/04/2014 1	Pepper	Peter	11772288

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:





Hold Monitor

Sorting: Oldest first | Newest first | ByUnitNo | Last Name | |

Search for: Disease area: HoldR
 LastName: UnitN

Reprocess all 2 records | Delete all 2 records | Delete marked records

	Application Area	Patient	Message Type	Inserted Date	Last Name	First Name	Unit No
	Anticoagulation	Flintstone William (01/04/1966)	ORU^R01	07/04/2014 1	Flintstone	William	54646546
	Anticoagulation	Pepper Peter # 11772288 /	ORU^R01	07/04/2014 1	Pepper	Peter	11772288

On clicking either the icon to re-process an individual message or the 'Reprocess all' button, the relevant message(s) will disappear from the list.

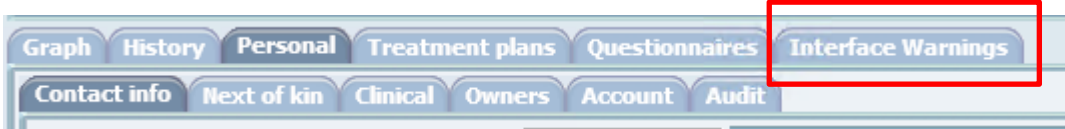


NOTE: Although the message will disappear from the Hold Monitor when the re-process icon is clicked, it will not actually be re-processed until another message is received over the interface. The re-process icon simply flags it to be re-processed the next time the interface is processing a new message.

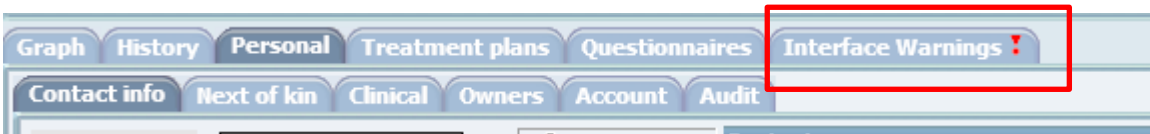
NOTE: Columns can be added or removed from the hold monitor display, contact 4S Staff for further details.

Interface Warnings Tab

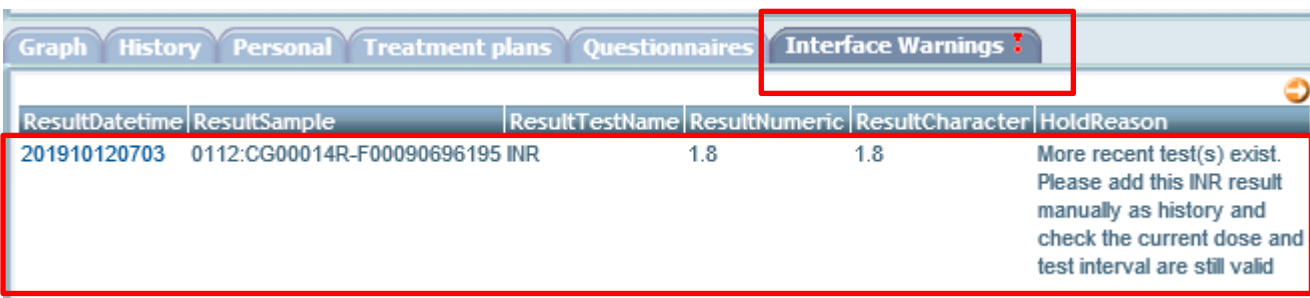
The interface warnings tab is visible on the patient record in DAWN. If there are no messages in the DAWN Hold Monitor for the patient, then the Interface Warnings tab will look like this:



If there are messages in the DAWN Hold Monitor for the patient, then the Interface Warnings tab will look like this:



Clicking on the Interface Warnings tab will display a list of messages that are in the DAWN Hold Monitor for this patient:



ResultDatetime	ResultSample	ResultTestName	ResultNumeric	ResultCharacter	HoldReason
201910120703	0112:CG00014R-F00090696195 INR		1.8	1.8	More recent test(s) exist. Please add this INR result manually as history and check the current dose and test interval are still valid

Clicking on any of the messages in the Interface Warnings tab will take you through to the DAWN Hold Monitor. The list of messages that are visible in the DAWN Hold Monitor are for this patient only.

Note: If the Interface Warnings tab is not visible, then please speak to your lead user about adding this permission to your DAWN user profile.

Hold Monitor Reasons And Actions For Test Results

Hold Reason	Action
Error Occurred. Class: cUpdatePatient...	Reprocess these messages (may be caused by error on the server)
Function: LoadFunctionNameArray - Collection could not be populated	Reprocess these messages (may be caused by error on the server)
Message conversion failed for field Patient_DDob	The patient's date of birth that was received in the message is in a different format than DAWN is expecting. Contact 4S.
Result already received for this test has been found to be invalid	This means that the laboratory have a problem and want to re-issue the result. You should delete these if you are confident that the result will get sent to DAWN again quite quickly or if this is not for an active patient within DAWN. You will only see this hold reason in Non AC systems.
No match found for patient with Unit No	There is a mismatch between the patient demographics (date of birth and surname) held in DAWN and the lab system. Check the patient demographics in DAWN and the lab system match. If the demographics in DAWN are incorrect then correct them and reprocess the message. If the demographics in the lab system are incorrect then correct them there and re-send the message from the lab system. This may also be because the patient is not in the DAWN system.
Failed to add test... script error....	Reprocess these messages (may be caused by error on the server)
Patient already flagged as deceased in DAWN. Manual resolution required	Check why you are receiving test results for a deceased patient. Has the patient been accidentally marked as deceased in DAWN? If the patient is deceased then you can delete the message from the hold monitor. If the patient isn't deceased then the patient should be reactivated in DAWN and the message re-processed.
Result received for a date in the future	Check the date of the test and speak to the lab to check why the date is incorrect
No test result received	Speak to the lab to find out why there is no value in the test result field. Also contact 4S.
Invalid use of Null	Contact 4S
Database connection lost	The connection to the database was lost when the message was being processed. Re-process the message. If the message is returned to the hold monitor with the same reason then contact 4S.
Existing result for same day Failed to create / update treatment record. You cannot have 2 INRs on the same day	The test message has been sent twice in error by the lab. The second test message may have different values in (for example, a patient may have a high INR and so is re-tested on the same day). You will need to speak to the lab to confirm which is the correct test result and then either delete the message in the hold

	monitor or remove the test result in DAWN and re-process the message. Be aware that patient may have been dosed on the original test result and may need to be contacted.
The patient's treatment plan is suspended	If the patient should be being monitored in DAWN then activate their treatment plan. Otherwise, delete the message in the hold monitor.
2 patients match the criteria where matching rules are ...	There is more than one patient matching in DAWN with the same demographics sent in the message. This needs correcting before results can be processed for this patient.
Patient has no Treatment Plan	Find out why the patient has no Treatment Plan and then either create a treatment plan and re-process the message or discard it.
Current Treatment Plan has a status of stopped/suspended/admitted/discharged/non-attending	Investigate why the patient's treatment plan has this status. The Treatment Plan should have the status of Active, New or ActiveAdmitted if test results are to be accepted.
You cannot enter an INR date for more than X days in the past	X amount of days is defined in a DAWN system setting Speak to the lab and investigate why old test results are being sent. If it has not been sent in error then you can add the test result into the test result history manually and then delete the message. If sent in error, delete it.
More recent results already exists in DAWN	Add the test result manually into the patient's test result history and then delete the message.
The date of the INR may not be after the end date of the Treatment Plan	Investigate why INRs are being received for a patient who has ended their treatment in DAWN. If their treatment is continuing for longer than planned then the Treatment Plan end date should be increased and the message re-processed. If the patient is no longer being monitored on DAWN their treatment plan can be stopped and the patient deactivated. The message in the hold monitor can then be deleted.
The date of the INR may not be before the start date of the Treatment Plan	Investigate why INRs are being received for a patient before their Treatment Plan start date in DAWN. The start date of their Treatment Plan in DAWN may be incorrect. If it is then you can change this start date and re-process the message. If the Treatment Plan start date is correct and you do not wish this INR to be inserted into their treatment record then the message in the hold monitor can be deleted.
You should first authorise the previous treatment before you can enter or accept the INR	Investigate why the patient has received an INR but has not been dosed in DAWN on the previous INR
Invalid configuration value for....	Try re-processing the message. If this does not work, contact 4S DAWN
###SharingViolation	Try re-processing the message. If this does not work, contact 4S DAWN
An error occurred while performing a state transition	Try re-processing the message. If this does not work, contact 4S DAWN

An error occurred – query timed out	Try re-processing the message. If this does not work, contact 4S DAWN
Script error	Try re-processing the message. If this does not work, contact 4S DAWN
The value of field INR may be 20 at most	The INR result received for the patient is greater than 20. This needs investigating with the lab.

Hold Monitor Reasons And Actions For Patient Demographics

Hold Reason	Action
Error Occurred. Class: cUpdatePatient...	Reprocess these messages
Function: LoadFunctionNameArray - Collection could not be populated	Reprocess these messages
Message conversion failed for field Patient_DDob	The patient's date of birth that was received in the message is in a different format than DAWN is expecting. Contact 4S.
Unable to add new patient – the hospital number is not unique	Perform a search on the patient's hospital number in DAWN. If the patient is displayed in DAWN then you can delete the message. If the patient is not in DAWN then re-process the message. If the message is sent back to the Hold Monitor contact 4S
No match found for patient with Unit No	There is a mismatch between the patient demographics (date of birth and surname) held in DAWN and the PAS. Check the patient demographics in DAWN and PAS match. If the demographics in DAWN are incorrect then correct them and reprocess the message. If the demographics in PAS are incorrect then correct them there and re-send the message from PAS.
2 patients match the criteria where matching rules are ...	There is more than one patient matching in DAWN with the same demographics sent in the message. This needs correcting before the message can be processed for this patient.
Patient already flagged as deceased in DAWN. Manual resolution required	Check why you are receiving demographics for a deceased patient. Has the patient been accidentally marked as deceased in DAWN? If the patient is deceased then you can delete the message in the hold monitor. If the patient isn't deceased then the patient should be reactivated in DAWN and the message re-processed.
Database connection lost	The connection to the database was lost when the message was being processed. Re-process the message. If the message is returned to the hold monitor with the same reason then contact 4S.
Patient merged. Please investigate	The patient has been merged in PAS. The patient records may need to be merged in DAWN. Contact your PAS team.
Invalid configuration value for....	Try re-processing the message. If this does not work, contact 4S DAWN

###SharingViolation	Try re-processing the message. If this does not work, contact 4S DAWN
An error occurred while performing a state transition	Try re-processing the message. If this does not work, contact 4S DAWN
An error occurred – query timed out	Try re-processing the message. If this does not work, contact 4S DAWN
Script error	Try re-processing the message. If this does not work, contact 4S DAWN