Renalware User Guide

Version History:

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1. User Functions

1.1. Registration & Passwords

1.1.1. New User Registration

If you have not used Renalware previously and are not registered as a User, you need to create an account. Click on the Sign Up link on the login screen. All fields need to be completed. Best to make your user name the same as your Windows login. Your email address should be your work email (NHS.NET) and this is required for Password reset if you forget your password.

Once you have completed the fields, Save and your account will be created. An Administration user will then be able to activate your account and set your level of access (e.g. Read Only, Clinical, Prescriber etc).

1.1.2. Update Profile

Once you can access your account, you can update your Profile at any time. You access this via your Username at the top of any screen and scroll down to Update Profile.

1.1.3. Forgotten Password

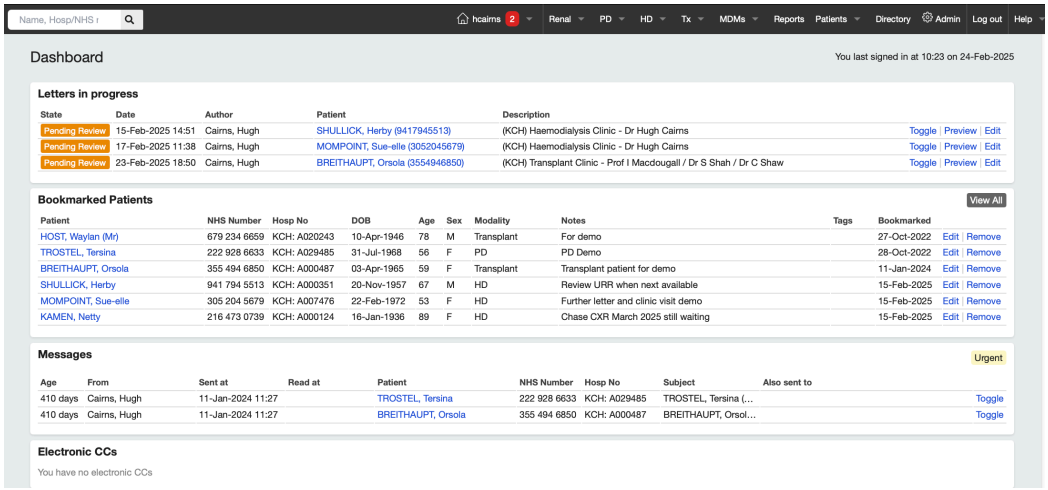
If you forget your password, you can click on the Forgotten Your Password? link on the Login screen and you will be sent an email enabling password reset for your account.

1.1.4. Password Resets

Per National Cyber-Security Centre guidelines, Renalware does not enforce regular password resets. At each login and on the User dashboard it displays the date and time of the last Log In by the user.

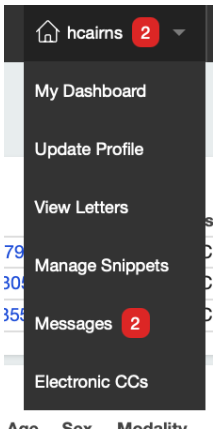
1.2. User Dashboard

Whenever you login to Renalware, the system will display your own Dashboard. This lists outstanding letters, bookmarked patients, any patient messages sent to you by other users and any Renalware letters which have been electronically copied to you.



Main user dashboard

The dashboard can be accessed at any time by clicking on one's username in the main menubar. This displays various User options as follows:



User dropdown menu options

1.2.1. User's Letters

Letters you have as author or typist which are in draft or awaiting review will appear on your dashboard. Once letters are completed and signed off (Archived), they will disappear from your dashboard. Archived letters are visible through the Letters

section so secretaries can use this to print off completed letters (individually or as a batch print). Once printed the letters are marked as Completed.

1.2.2. User's "Bookmarks"

Bookmarks are a way of creating a list of patients for your personal use with notes to highlight outstanding jobs, awaited results or other issues as you wish. These patients remain bookmarked until you mark the bookmark as completed.

1.2.3. Renalware Messaging

It is possible to message other Renalware users about individual patients and these messages will appear on that user's Dashboard until they mark the message as Read. Messages are also displayed on the individual patient's Clinical Summary screen.

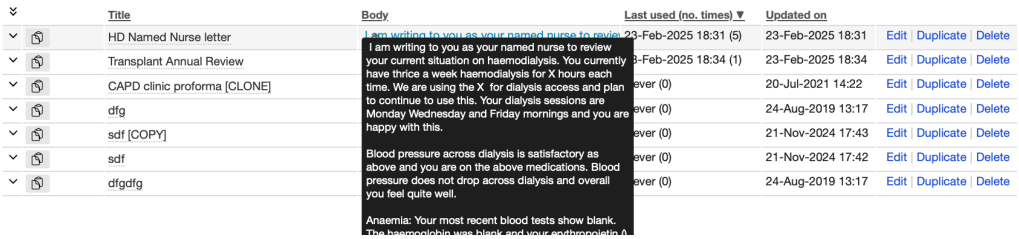
1.2.4. CC'ed Letters

Renalware letters can be copied electronically to any Renalware user and these letters appear on the user's Dashboard. They can be signed off as Read when they will disappear from the Dashboard.

1.2.5. Renalware "Snippets"

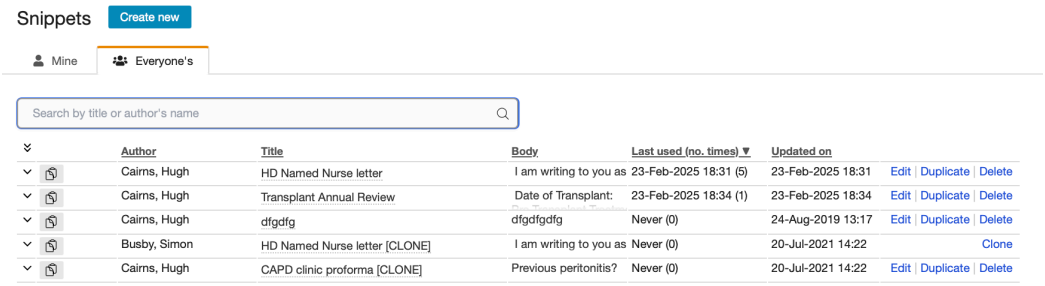
Snippets are a useful and flexible way to maintain a collection of text content which can be used virtually anywhere text entry is required — most typically in Letters and Events.

Snippets are managed via the User's main dropdown menu (see above screenshot), where they can be created, edited, duplicated ("cloned") and deleted. Hovering over a snippet title in the list gives a preview of the content:



Snippets list with hover "preview"

To avoid having to create common snippets (e.g. Letter templates) from scratch, each user has access to the entire list of snippets created by all users. These can then be added (and edited if need be) to a user's own collection.

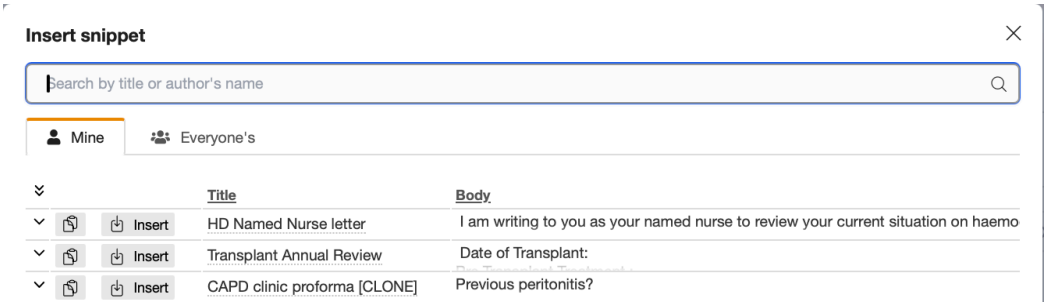


Snippets listing using the "Everyone's" option

Forms where the use of snippets is enabled will have the "Insert snippet" option at right:

New Event form with "Insert snippet" option

Choosing this option will produce a pop-up window with searchable Snippets lists:



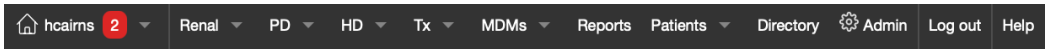
"Insert snippet" pop-up window

It is best regularly to "prune" the list of snippets to remove obsolete ones and reduce the list sizes.

2. Navigation and Searching

2.1. Main Menu

There is a horizontal menubar of generic functions at the top of most screens (with your user name at the left and Help on the right). If you place the mouse cursor over each function, it displays a drop down list of the options associated with that function so whatever is required can be selected. (Certain Admin-level users will have additional options displayed.)



Main menubar options (for Admin user)

The Main Menubar options include:

- Quick Search
- [username]
- Renal
- PD
- HD
- Tx
- MDMs
- Reports
- Patients
- Directory
- Admin
- Log out
- Help

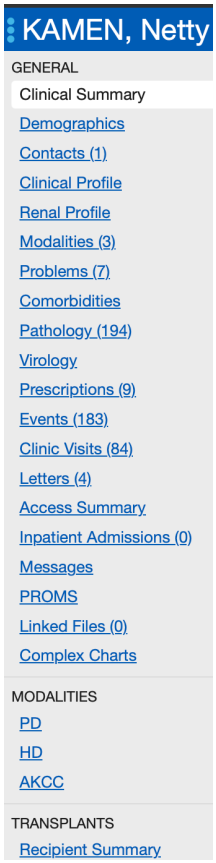
Note: Admin options only appear for users with admin-level privileges.

Of course most Renalware users will only need to use a subset of these menu options. The User's menu bar icon indicates if there are any new messages.

2.2. "Left gutter"

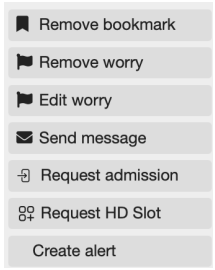
When a patient has been selected, a selection of screens and functions related to that patient is displayed in the left gutter with General Clinical Summary at the top and covering Modalities, Transplantation and specialist functions such as add or

remove Bookmark or Worry or Send a Message. The Left Gutter can be toggled (hidden or displayed) by clicking on the 3 vertical dots to the left of the patient's name.



"Left gutter" navigation bar

At the bottom of the left gutter are additional patient options and other actions:



Additional left gutter patient tools

2.3. Quick Patient Search

At the top left of every screen is a Search area to find individual patients. If you click on this area, you can search for patients by Name or any of their hospital numbers. For example "`Smith,John`" will find all the patients called John Smith, "`smith,j`" will find all patients called Smith with a first name starting with J and "`Smi`" will find all patients whose surname starts with Smi. The name search is not 'fuzzy' so "`Smith`" will not find Smythe but will find Smithe and Smithson.
Searching by name is not case-sensitive.

Any of the patient's hospital numbers including the NHS number can be searched for in the same field –- these require the exact number.

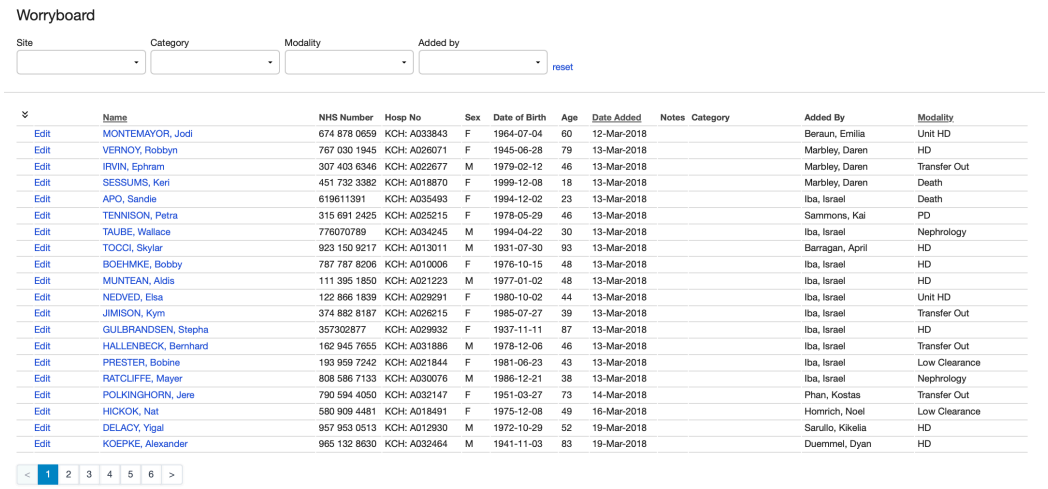
Once the search has been performed, the patient or list of patients who fullfil that Search is displayed and clicking on a patient's name in that list takes one to the Clinical Summary page for that patient.

Groups of patients can be found through other screens – for example the HD MDM screen shows HD patients which can be filtered based on, for example, Dialysis Unit, HD Schedule and/or Named Nurse.

Note that one can "bookmark" any given patient, who will thereafter appear in your Bookmarks list on your Dashboard.

2.4. Worryboard Patients

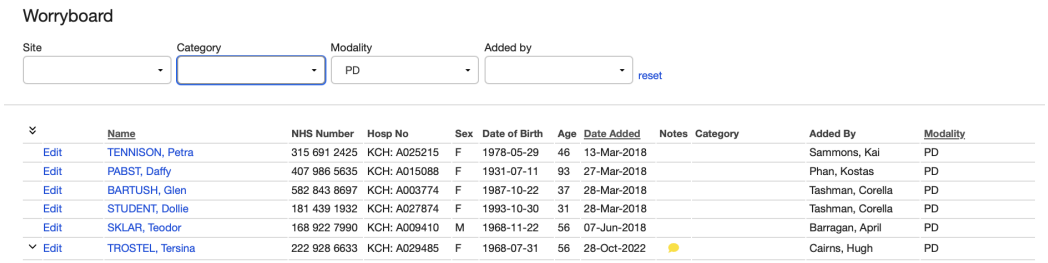
Patients can be added or removed from the Worryboard and notes added; the Worryboard is similar to bookmarking a patient but the list is available to all Renalware users rather than just an individual user. Patients can be added to the Worryboard at the bottom of the left gutter. Patients on the Worryboard can be found through the Worryboard list under the Patients header in the top horizontal menu bar.



	Name	NHS Number	Hosp No	Sex	Date of Birth	Age	Date Added	Notes	Category	Added By	Modality
Edit	MONTEMAYOR, Jodi	674 878 0659	KCH: A033843	F	1964-07-04	60	12-Mar-2018			Beraun, Emilia	Unit HD
Edit	VERNOY, Robbyn	767 030 1945	KCH: A026071	F	1945-06-28	79	13-Mar-2018			Marbley, Daren	HD
Edit	IRVIN, Ephram	307 403 6346	KCH: A022677	M	1979-02-12	46	13-Mar-2018			Marbley, Daren	Transfer Out
Edit	SESSUMS, Keri	451 732 3382	KCH: A018870	F	1999-12-08	18	13-Mar-2018			Marbley, Daren	Death
Edit	APO, Sandie	619611391	KCH: A035493	F	1994-12-02	23	13-Mar-2018			Iba, Israel	Death
Edit	TENNISON, Petra	315 691 2425	KCH: A025215	F	1978-05-29	46	13-Mar-2018			Sammons, Kai	PD
Edit	TAUBE, Wallace	776070789	KCH: A034245	M	1994-04-22	30	13-Mar-2018			Iba, Israel	Nephrology
Edit	TOCCI, Skylar	923 150 9217	KCH: A013011	M	1931-07-30	93	13-Mar-2018			Barragan, April	HD
Edit	BOEHMKE, Bobby	787 787 8206	KCH: A010006	F	1976-10-15	48	13-Mar-2018			Iba, Israel	HD
Edit	MUNTEAN, Aldis	111 395 1850	KCH: A021223	M	1977-01-02	48	13-Mar-2018			Iba, Israel	HD
Edit	NEDVED, Elsa	122 866 1839	KCH: A029291	F	1980-10-02	44	13-Mar-2018			Iba, Israel	Unit HD
Edit	JIMISON, Kym	374 882 8187	KCH: A026215	F	1985-07-27	39	13-Mar-2018			Iba, Israel	Transfer Out
Edit	GULBRANDSEN, Stepha	357302877	KCH: A029932	F	1937-11-11	87	13-Mar-2018			Iba, Israel	HD
Edit	HALLENBECK, Bernhard	162 945 7655	KCH: A031886	M	1978-12-06	46	13-Mar-2018			Iba, Israel	Transfer Out
Edit	PRESTER, Bobine	193 959 7242	KCH: A021844	F	1981-06-23	43	13-Mar-2018			Iba, Israel	Low Clearance
Edit	RATCLIFFE, Mayer	808 586 7133	KCH: A030076	M	1986-12-21	38	13-Mar-2018			Iba, Israel	Nephrology
Edit	POLKINGHORN, Jere	790 594 4050	KCH: A032147	F	1951-03-27	73	14-Mar-2018			Phan, Kostas	Transfer Out
Edit	HICKOK, Nat	580 909 4481	KCH: A018491	F	1975-12-08	49	16-Mar-2018			Homrich, Noel	Low Clearance
Edit	DELACY, Yigal	957 953 0513	KCH: A012930	M	1972-10-29	52	19-Mar-2018			Sarullo, Kikelia	HD
Edit	KOEPKE, Alexander	965 132 8630	KCH: A032464	M	1941-11-03	83	19-Mar-2018			Duemmel, Dyan	HD

Default Worryboard listing

The Worryboard can then be filtered by Hospital Site, Category, Modality and the Worry creator.



	Name	NHS Number	Hosp No	Sex	Date of Birth	Age	Date Added	Notes	Category	Added By	Modality
Edit	TENNISON, Petra	315 691 2425	KCH: A025215	F	1978-05-29	46	13-Mar-2018			Sammons, Kai	PD
Edit	PABST, Daffy	407 986 5635	KCH: A015088	F	1931-07-11	93	27-Mar-2018			Phan, Kostas	PD
Edit	BARTUSH, Glen	582 843 8697	KCH: A003774	F	1987-10-22	37	28-Mar-2018			Tashman, Corella	PD
Edit	STUDENT, Dollie	181 439 1932	KCH: A027874	F	1993-10-30	31	28-Mar-2018			Tashman, Corella	PD
Edit	SKLAR, Teodor	168 922 7990	KCH: A009410	M	1968-11-22	56	07-Jun-2018			Barragan, April	PD
Edit	TROSTEL, Tersina	222 928 6633	KCH: A029485	F	1968-07-31	56	28-Oct-2022			Cairns, Hugh	PD

Worryboard filtered for PD patients

2.5. Directory

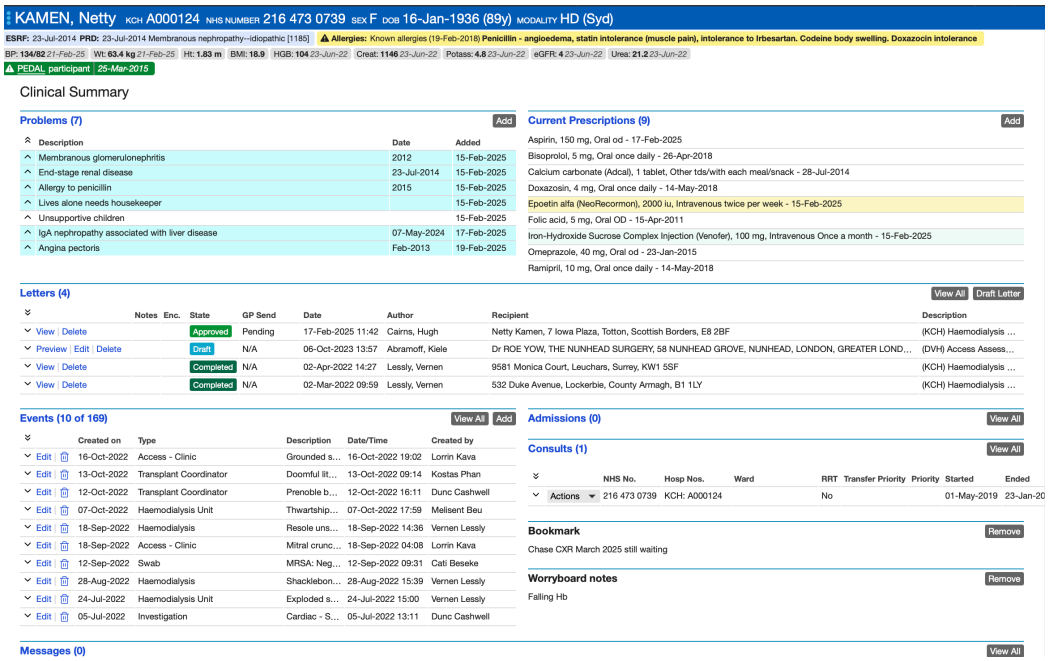
The Directory is a list of all contacts for correspondence held within each site's Renalware. It can include Clinicians, patients' relatives and friends and any other individuals to whom one might want to copy patient letters. Many names in the Directory (e.g. relatives) may only be relevant to a single patient whereas many Clinicians may link to many different patients. Names are added directly to the Directory from the top menu bar and then are added to an individual patient's contacts through the Contacts link in the Left Gutter for that patient.

When a Contact is added for a patient, they can be set up to receive copies of all letters (Default CC) and this can be edited through the Contacts list. When creating a letter for a patient it is easy to add any of a patient's contacts to receive a copy of the letter or choose the Contact as the primary letter recipient.

3. Patient Functions

3.1. Clinical Summary

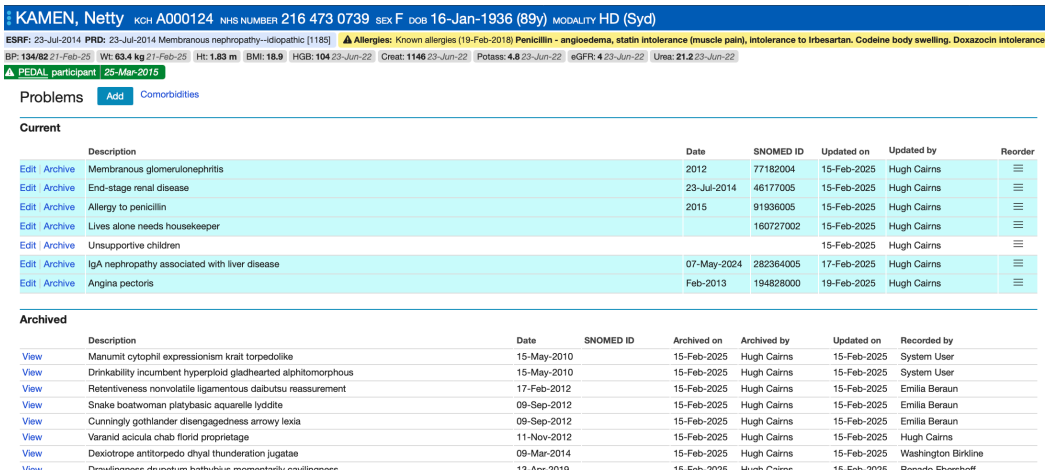
Whenever a patient is selected, clicking on the patient's name takes one to the Clinical Summary screen. This is designed to display a range of useful information for clinicians. At the top, basic demographic information and the patient's current Modality are shown. Below that is a bar which shows a selection of the most recent blood results and clinic observations. Any Alerts about the patient and any Clinical Studies for which they have been recruited are also displayed in this area.



Main Clinical Summary screen

3.2. Problems List

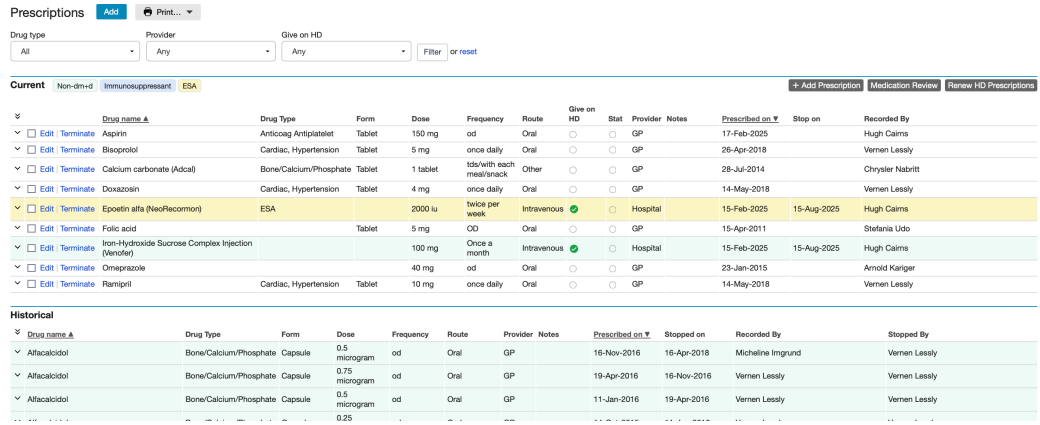
The next section shows the patient's clinical Problems list and current Prescriptions. The Problems list displays a mixture of SNOMED Diagnoses and Procedures and free text Problems which are entered on the Problem list screen (SNOMED problems are highlighted in blue). Problems can be edited or archived as required. The order of the Problems is as entered but this can altered by dragging Problems to be higher or lower in the list using the widget at far right.



Problems list where items can be re-ordered or Archived

3.3. Prescriptions

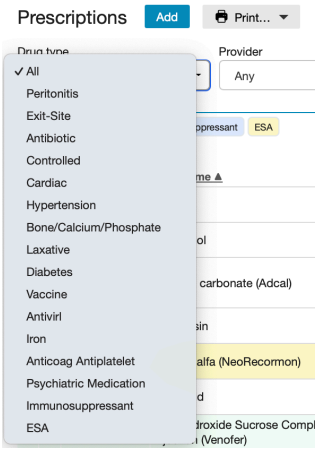
The main Prescriptions screen for a given patient can be accessed from the Clinical Summary or from the left gutter at any time.



Prescriptions screen lists current and historical medications

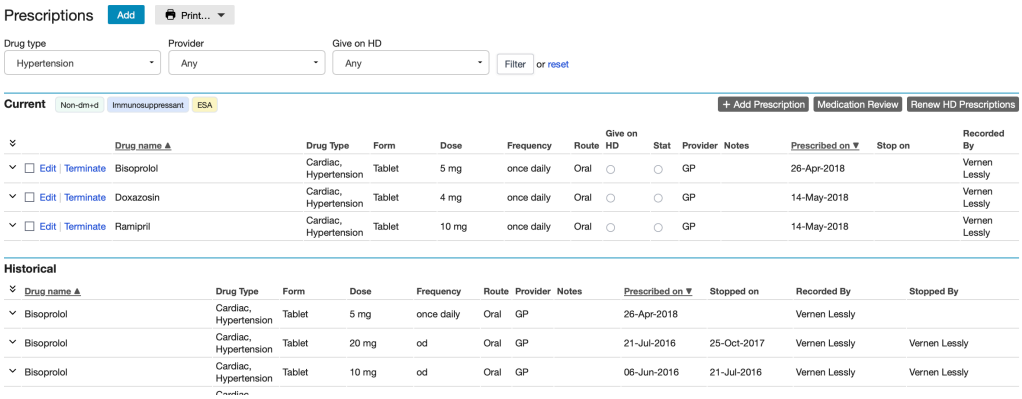
3.3.1. Filtering Prescriptions

The Prescriptions screen includes a filtering option to enable display of only one class of drugs (e.g. anti-hypertensive agents). Use the dropdown options to select the desired filter(s).



Dropdown for filtering prescriptions by type

Filters act on both the current and historical prescriptions.

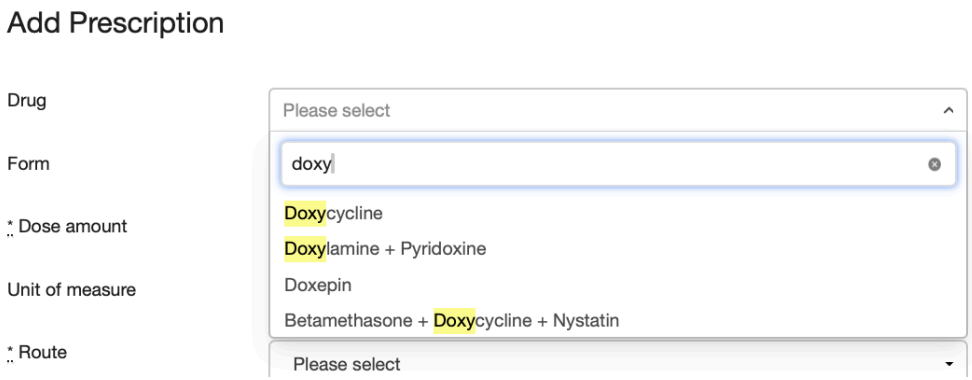


Filtering current and historical prescriptions

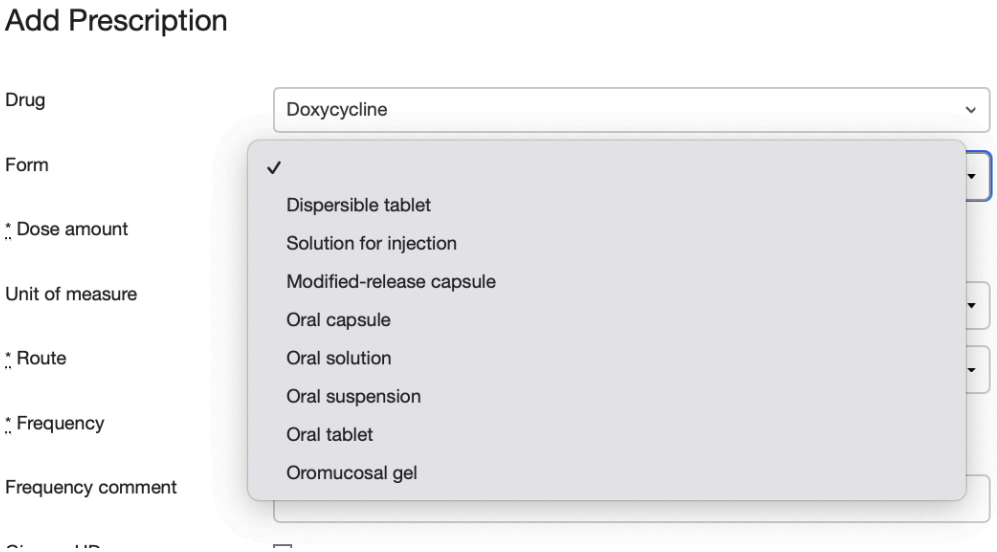
This is a powerful tool to use with patients who have been on a variety of drugs over long periods of time.

3.3.2. Adding Prescriptions

Renalware uses the DM+D drug list from NHS England so drugs are chosen from a searchable drop down list and drug selection then dictates drug form and route of administration.



Sample drug name search using DM+D



The chosen drug dictates the available forms

Each drug has a Start Date and a Stop Date can be entered if required. Drugs can be recorded to be given on HD although this option is only available to Users who are allowed to prescribe on HD.

Any drug which is terminated then appears in the historical Medications section and the display can be filtered to show only certain classes of drugs (see above). Note that if the dose of a medication is changed, the previous prescription is displayed in the historical list.

3.4. Patient Letters, Events, and Consults

Below the current Problem list and Prescriptions section is a display of the most recent 10 letters on Renalware with the most recent at the top. The display shows a summary of the letter information although the text can be expanded or the whole

letter viewed easily.

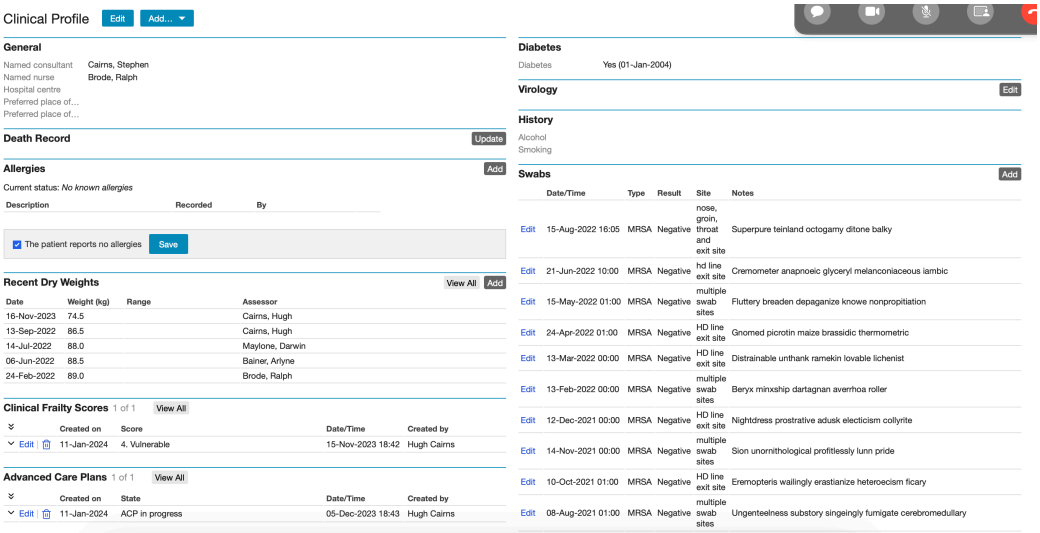
Below the Letters, the patient's recent Events and any Consults (patient reviews when under a non Renal team in the hospital) are shown with again a summary which can be expanded as required.

3.5. Clinical Profile

The Clinical Profile (found in the left gutter) is used to enter and display general information about the individual patient including Named Consultant, Named Nurse, Hospital Site if relevant, Preferred Place of Death, whether Diabetic and Alcohol and Smoking history. In addition, Allergies, Virology data including vaccinations, Swabs, Dry Weights, Clinical Frailty Scores and Advanced Care Plans can be seen and entered on this screen.

For patients who have died, information about their death including Place of Death can be recorded.

Dietitians can enter Body Composition data on this screen as well.



Clinical Profile screen

4. Letters Module

4.1. Letter Creation

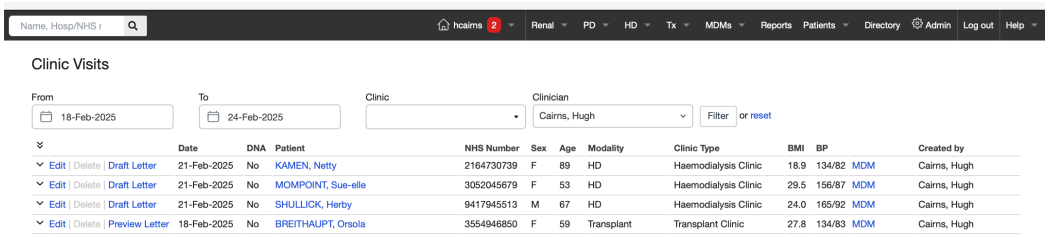
Letters are one of the most powerful components of Renalware as they create an extensive record of the patient's history with details of the patient's Problem List, Medications, Observations and Pathology results at the time of the letter creation.

Letters can be created from the Letters page (choosing Clinical Letter, Clinic Visit Letter or Simple Letter). Simple Letters do not display Problem List, Medications or Pathology Results. A Clinical Letter will generate a letter not linked to a particular clinic visit.

4.2. Clinic Visit Letters

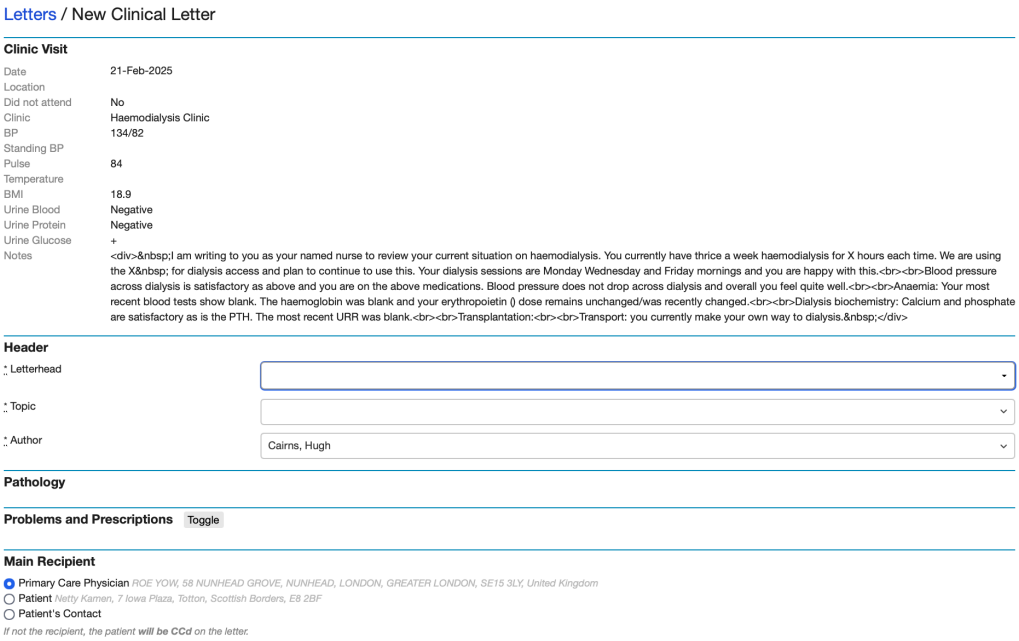
These are among the most common and important letters generated in Renalware.

Once a Clinic Visit has been created, a letter can be created from the Clinic Visit list for that patient (Clinic Visits in the Left Gutter) or from the complete list of Clinic Visits (under Renal in the top menu bar) which can be filtered by Clinic, Clinician and a Date Range.



Clinic Visits list with "Draft Letter" option to create a new Clinic Letter

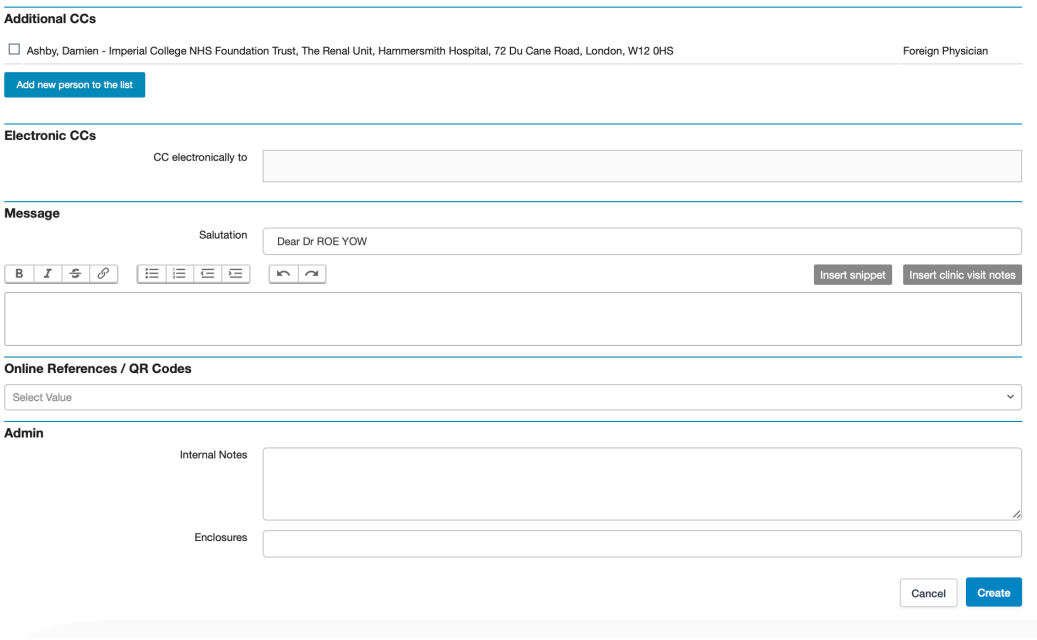
Selecting Draft Letter will start the Letter Creation. As can be seen in the sample below, the information from the Clinic Visit (BP, weight, etc) will be displayed at the top of the page as an *aide memoire* including any notes made by the clinician at the time of the visit. The data from the clinic visit is then automatically inserted into the body of the letter.



Creating a new Clinical Letter from a Clinic Visit

The fields for the letter type (Letterhead and Topic) will need to be selected but, if you are doing a series of letters related for example to the same clinic, these fields will be auto-populated in subsequent letters. The primary recipient of the letter defaults to the GP with copy to the patient unless they have opted out of receiving copies of their letters. The Primary Recipient is easily changed to be the Patient (in which case the letter is copied to the GP).

After the letter is composed, electronic CCs can be added. Any CC from the patient's Contacts in the Directory and electronic CC (any Renalware) can be selected at this stage. Named Nurses automatically receive an electronic CC of all letters on their patients.



Bottom of Clinical Letter form including CC recipient options.

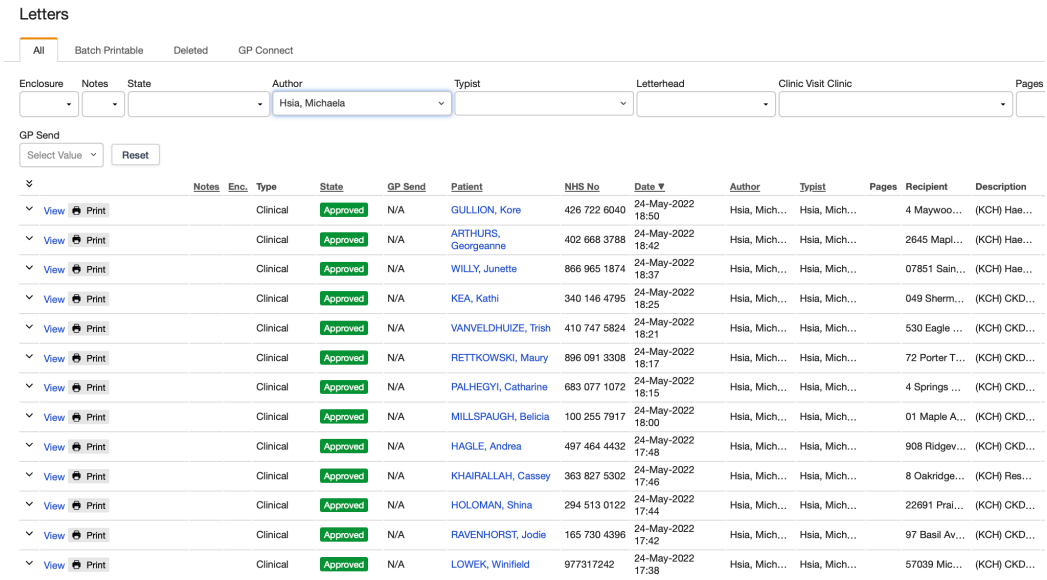
The Notes from the Clinic Visit can be selected to appear in the body of the letter or a Snippet from your or anyone else's Snippet list can be selected. Equally Voice Recognition with Direct Dictation can be used to complete the body of the letter. Once the letter is completed, click on Create and the formatted letter is then displayed.

This can be then Submitted for Review so will appear on the Author and, if different, the typist's Dashboard. Draft and Unarchived letters also appear in the patient's Clinical Summary screen and the Letters screen. The author than can review the letter, make any required changes and then can Approve and Archive. The user is warned that, once Archived, a letter cannot be retrieved and will be sent electronically to the Trust EPR and usually the GP surgery and will be available for printing as required by the secretarial team.

4.3. Letters for Printing

Although Letters in Draft and Awaiting Review can be printed to create a hard copy, Printing an Archived Letter changes the Letter status to *Completed* to indicate that the letter requires no further action. Archived letters awaiting printing can be found in Letters under the Renal function in the top menu bar. This list can be filtered to find letters in a particular state (for printing usually will be Archived (Ready to Print) and letters can be batched printed and also Envelope Printed if using a Envelope Stuffer. The system will calculate the number of copies of a letter required; for

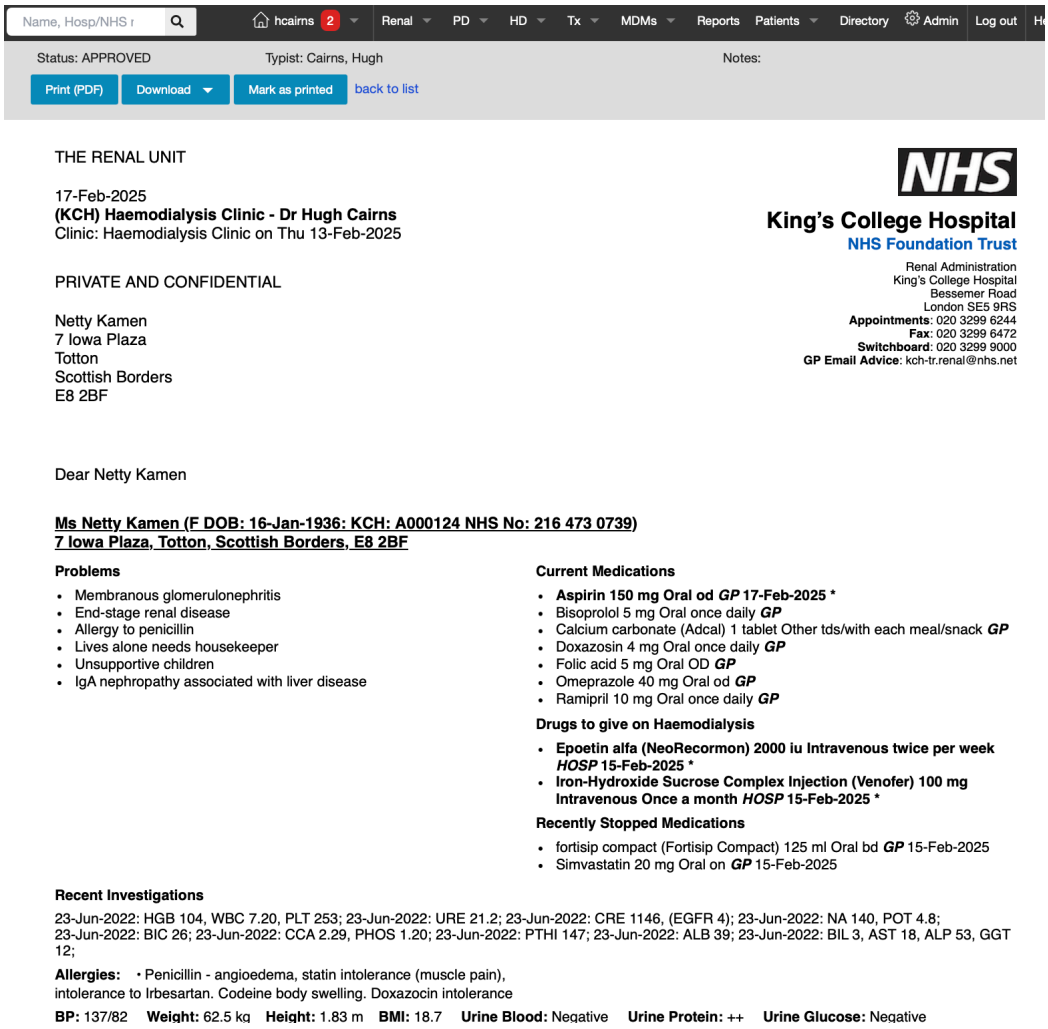
example, if the letter has been emailed to the GP and is only being sent to the patient, a single copy will be required whereas another letter may not have been emailed to the GP surgery and also have 2 CCs so will require 4 copies.



	Notes	Enc.	Type	State	GP Send	Patient	NHS No	Date ▼	Author	Typist	Pages	Recipient	Description
View Print			Clinical	Approved	N/A	GULLION, Kore	426 722 6040	24-May-2022 18:50	Hsia, Mich…	Hsia, Mich…		4 Maywoo…	(KCH) Hae…
View Print			Clinical	Approved	N/A	ARTHURS, Georgeanne	402 668 3788	24-May-2022 18:42	Hsia, Mich…	Hsia, Mich…		2645 Mapl…	(KCH) Hae…
View Print			Clinical	Approved	N/A	WILLY, Junette	866 965 1874	24-May-2022 18:37	Hsia, Mich…	Hsia, Mich…		07851 Sain…	(KCH) Hae…
View Print			Clinical	Approved	N/A	KEA, Kathi	340 146 4795	24-May-2022 18:25	Hsia, Mich…	Hsia, Mich…		049 Sherm…	(KCH) CKD…
View Print			Clinical	Approved	N/A	VANVELDHUIZE, Trish	410 747 5824	24-May-2022 18:21	Hsia, Mich…	Hsia, Mich…		530 Eagle …	(KCH) CKD…
View Print			Clinical	Approved	N/A	RETTKOWSKI, Maury	896 091 3308	24-May-2022 18:17	Hsia, Mich…	Hsia, Mich…		72 Porter T…	(KCH) CKD…
View Print			Clinical	Approved	N/A	PALHEGYI, Catharine	683 077 1072	24-May-2022 18:15	Hsia, Mich…	Hsia, Mich…		4 Springs …	(KCH) CKD…
View Print			Clinical	Approved	N/A	MILLSPAUGH, Belicia	100 255 7917	24-May-2022 18:00	Hsia, Mich…	Hsia, Mich…		01 Maple A…	(KCH) CKD…
View Print			Clinical	Approved	N/A	HAGLE, Andrea	497 464 4432	24-May-2022 17:48	Hsia, Mich…	Hsia, Mich…		908 Ridgev…	(KCH) CKD…
View Print			Clinical	Approved	N/A	KHAIRALLAH, Cassey	363 827 5302	24-May-2022 17:46	Hsia, Mich…	Hsia, Mich…		8 Oakridge…	(KCH) Res…
View Print			Clinical	Approved	N/A	HOLOMAN, Shina	294 513 0122	24-May-2022 17:44	Hsia, Mich…	Hsia, Mich…		22691 Prai…	(KCH) CKD…
View Print			Clinical	Approved	N/A	RAVENHORST, Jodie	165 730 4396	24-May-2022 17:42	Hsia, Mich…	Hsia, Mich…		97 Basil Av…	(KCH) CKD…
View Print			Clinical	Approved	N/A	LOWEK, Winifield	977317242	24-May-2022 17:38	Hsia, Mich…	Hsia, Mich…		57039 Mic…	(KCH) CKD…

Letters list filtered by author

From the Letters list one can view, print, and mark as printed (these options depend upon a letter's current status). The following screenshot displays the options for a letter marked *APPROVED*.



Print options for a Letter that has been Approved by its author.

Note that the Download option at top allows the user to download a copy of the letter in either PDF or RTF format.

Ideally at the end of each day, all Archived letters will have been printed to ensure that letters are received by all recipients as quickly as possible. The database can calculate the time from Clinic Visit or Letter Creation to Completion by patient or clinic type, author or typist.

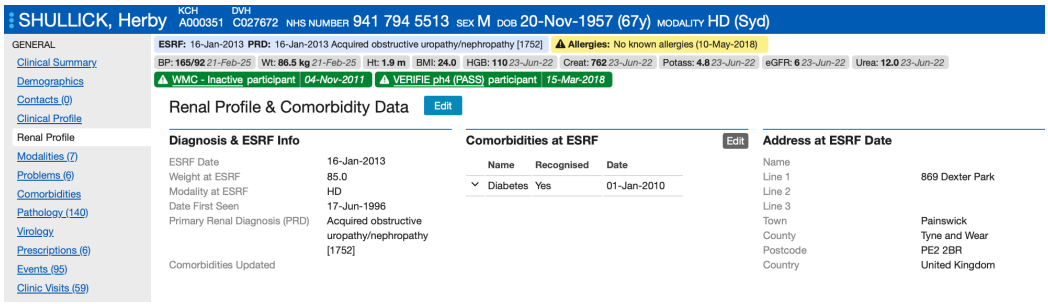
4.4. Electronic Letter Transmission

Depending on systems integration within local IT systems, letters created within Renalware may be sent automatically to the main hospital EPR system and/or to GP practices.

5. Renal Modules

5.1. Renal Profile Screen

Specific data related to Renal patients is recorded through the Renal Profile (left gutter). Each bit of information usually only needs to be entered once although usually this is done over time. Therefore the cause of the renal disease (the primary renal diagnosis (PRD)) may be entered early as can the Date First Seen (this is the date the patient is first reviewed by the/a renal team). Other information such as the date of ESRF and the first RRT modality usually can only be entered later.



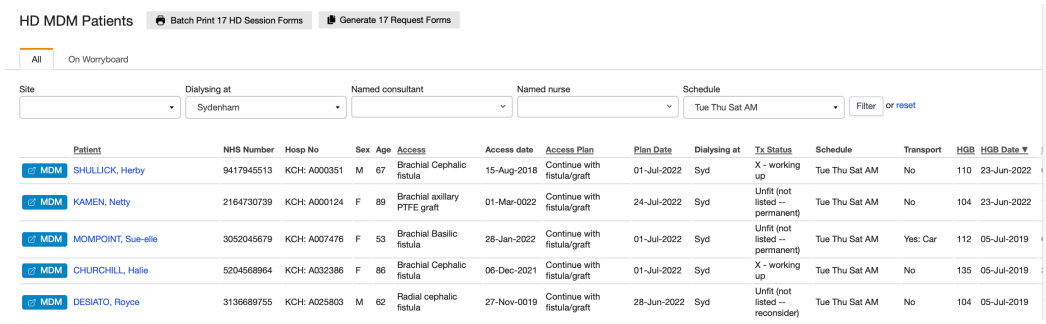
Sample Renal Profile screen

The data in the Renal Profile is important for the data returns to the UK Renal Registry and is important for local audits. *In the main it is considered best for the PRD to be entered by the consultants for greater accuracy.*

5.2. Haemodialysis (HD)

5.2.1. Finding HD patients

Individual HD patients can be found through the Search field using their Name(s) or any hospital number (local or NHS number). Groups of HD patients can be found through the HD MDM lists (MDM at top of each screen and scroll down to HD). Once in the MDM screen, this can be filtered to find the desired group of patients (e.g. by Hospital unit, HD schedule, Named nurse or Named consultant). The MDM list displays some useful data and each patient's HD Summary screen can be accessed by clicking on their name.



Sample HD MDM list filtered by dialysis site and schedule

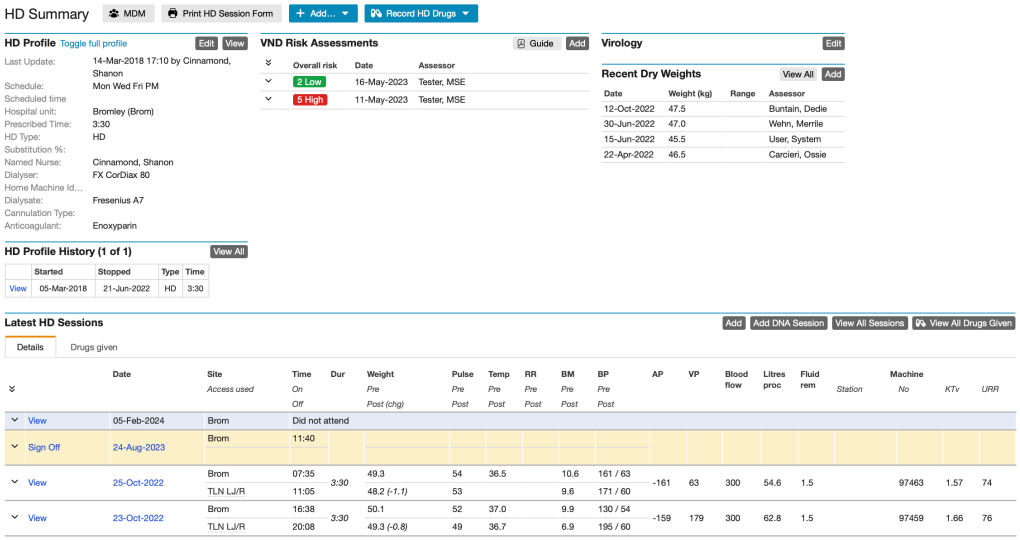
5.2.2. Enabling an HD Profile

To enable the creation of the HD Profile, record HD sessions and other HD database functions, the patient has to have a Modality of HD. This is created via the Modality screen (available from the left gutter for each patient). Once a patient has an HD Modality, the HD screens can be accessed via the HD link in the left gutter. When clicked, this takes the user to the HD Summary screen for that patient.

5.2.3. HD Summary

The HD Summary screen displays the following:

- Current and previous HD Profiles
- HD Access Profile
- Virology
- Dry Weights
- HD Schedule and Preferences
- Latest HD Sessions

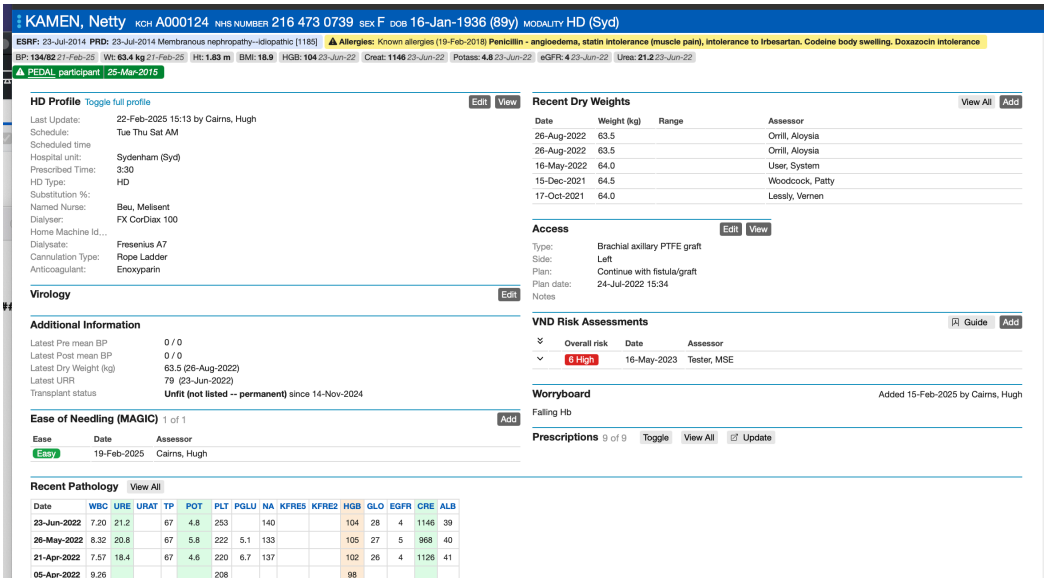


HD Summary screen with recent sessions listing

5.2.4. HD Profile

Use the Add button to create an HD Profile for a new patient. If the patient has an existing HD profile, this option will be unavailable and therefore use the Edit button to amend the existing HD profile where appropriate. This information is important to help define each HD session, pre-populate some fields for each HD session and help find groups of patients (e.g. having dialysis on M/W/F in the morning).

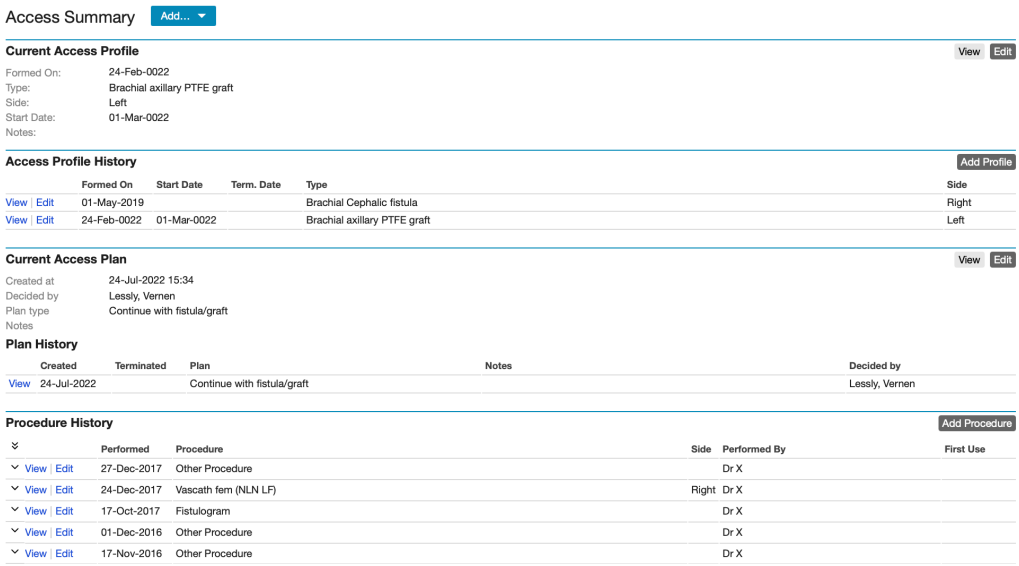
The HD Profile can be accessed from the left gutter (for patients with an HD modality) or from the HD MDMs list for patient review.



HD Profile as displayed from the MDM list

5.2.5. HD Access

These fields can be accessed using the Add or Edit buttons on the HD Summary screen or via the Access Summary link in the left gutter. Tracking access procedures and recording current HD access improves data quality and pre-populates the access fields for each recorded HD session. Recording the Access Plan for each patient enables staff to identify more easily patients who require access interventions or are awaiting a procedure.



Sample HD Access Summary screen

Note that the Access Plan information for each patient is displayed in the HD MDM listing for easy reference.

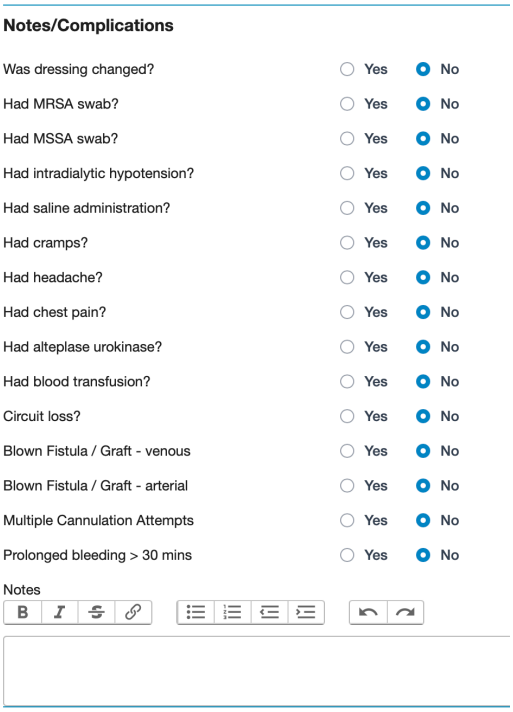
Sex	Age	Access	Access date	Access Plan	Plan Date
M	67	Brachial Cephalic fistula	15-Aug-2018	Continue with fistula/graft	01-Jul-2022
F	89	Brachial axillary PTFE graft	01-Mar-0022	Continue with fistula/graft	24-Jul-2022
F	53	Brachial Basilic fistula	28-Jan-2022	Continue with fistula/graft	01-Jul-2022

Access data displayed in the MDM List for HD Patients

5.2.6. Entering HD Sessions

The new session screen allows entry for the following information:

- Sign In
- Sign Off – leave blank if session not completed
- Session Info
- Access
- AVF/AVG Assessment
- Pre Dialysis Observations
- Post Dialysis Observations
- Dialysis
- HDF
- Notes/Complications – the complications default to NO and the user can switch to YES for those complications which have occurred.



HD Session Notes & Complications entry

Accurate entry here is obviously essential for audits as well as for ensuring proper clinical care.

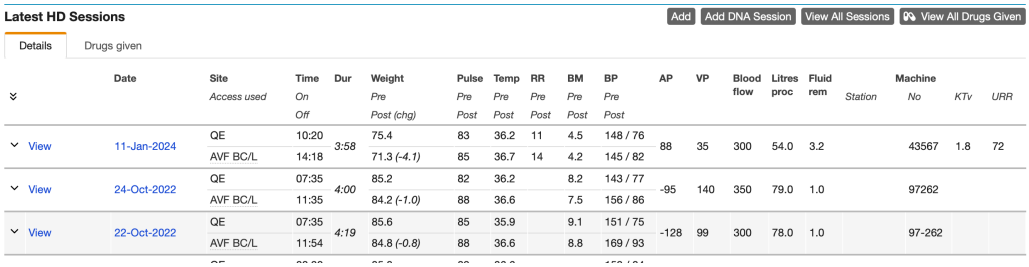
Some information will populate from profiles where appropriate. Verification of some default fields will be required when completing the session data (e.g. the user has to confirm that the current Access was used for this HD session). The "Save and

Sign-off" button is available at top and bottom of the screen.

"Did Not Attend" an HD session is recorded by clicking on the DNA HD session button.

5.2.7. Latest HD Sessions

Recent sessions are displayed in the HD Sessions list:



	Date	Site / Access used	Time On / Off	Dur	Weight Pre / Post (chg)	Pulse Pre / Post	Temp Pre / Post	RR Pre / Post	BM Pre / Post	BP Pre / Post	AP	VP	Blood flow	Litres proc	Fluid rem	Station	Machine No	KTv	URR
View	11-Jan-2024	QE	10:20	3:58	75.4	83	36.2	11	4.5	148 / 76	88	35	300	54.0	3.2		43567	1.8	72
		AVF BC/L	14:18		71.3 (-4.1)	85	36.7	14	4.2	145 / 82									
View	24-Oct-2022	QE	07:35	4:00	85.2	82	36.2		8.2	143 / 77	-95	140	350	79.0	1.0		97262		
		AVF BC/L	11:35		84.2 (-1.0)	88	36.6		7.5	156 / 86									
View	22-Oct-2022	QE	07:35	4:19	85.6	85	35.9		9.1	151 / 75	-128	99	300	78.0	1.0		97-262		
		AVF BC/L	11:54		84.8 (-0.8)	88	36.6		8.8	169 / 93									

Latest HD Sessions ("Details" display)

One can toggle between displaying the session details (as above) and displaying any HD drugs administered during a given session:

	Date	Prescription	Given	Reason not given	Given by	Witness	Witnessed	Notes
Delete	24-Oct-2022	Epoetin alfa (NeoRecormon) - DOSE 6000 iu - Intravenous - 3 times per week	Yes		Cairns, Hugh	Abati, Mead	Sign-off	
Delete	24-Oct-2022	Iron-Hydroxide Sucrose Complex Injection (Venofer) (Venofer) - DOSE 100 mg - Intravenous - monthly	Yes		Cairns, Hugh	Abati, Mead	Sign-off	

Latest HD Sessions — drugs administered display

5.2.8. Recording HD Administered Drugs

If a drug has been prescribed to be administered on HD, it can be recorded as given by selecting "Record HD drugs" and choosing the drug from the drop down (only medications which are recorded as "To be given on HD" will appear on this list). This option is available from the HD Summary screen. Drugs must be co-signed by the drug administrator and a co-signatory in order to be recorded as given at the end of the session. The sign-off process is performed by each user entering their password.

5.3. Transplant

5.3.1. Transplant Overview

Renalware handles all aspects of renal transplant care, including Transplant Workups, Recipient Operations, Follow-Ups, and Live Donor Workups. These are described below.

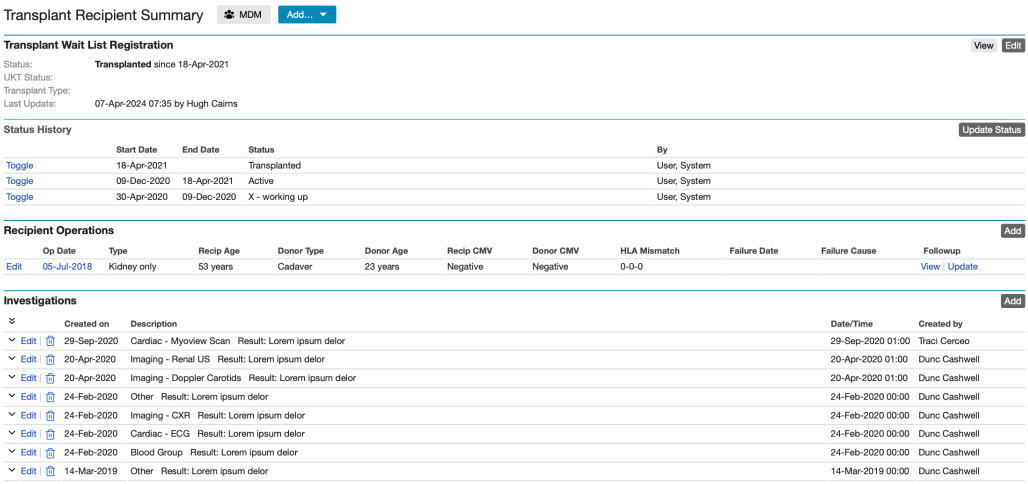
5.3.2. Locating Transplant Patients

You can look up Tx patients by selecting MDMs at the top of RenalWare and selecting Transplant from the black drop-down list. This will take you to a list of all Tx patients — you can filter by site, consultant etc. Select the patient and it will bring up their summary profile.

You can also use the Quick Search function to locate a given patient. Select "Recipient Summary" under the Transplant section from the left gutter. This will take you to the Transplant Recipient Summary page.

5.3.3. Transplant Recipient Summary Screen

On this screen you can see Tx status, wait list registration, Status history and Recipient operation details. Click on the blue 'Add' tab and you can select 'recipient work up, wait list registration, recipient operation and add investigation' to update each section with required information.



Transplant Recipient Summary showing status, operations, and recent investigations.

5.3.4. Recipient's Workup

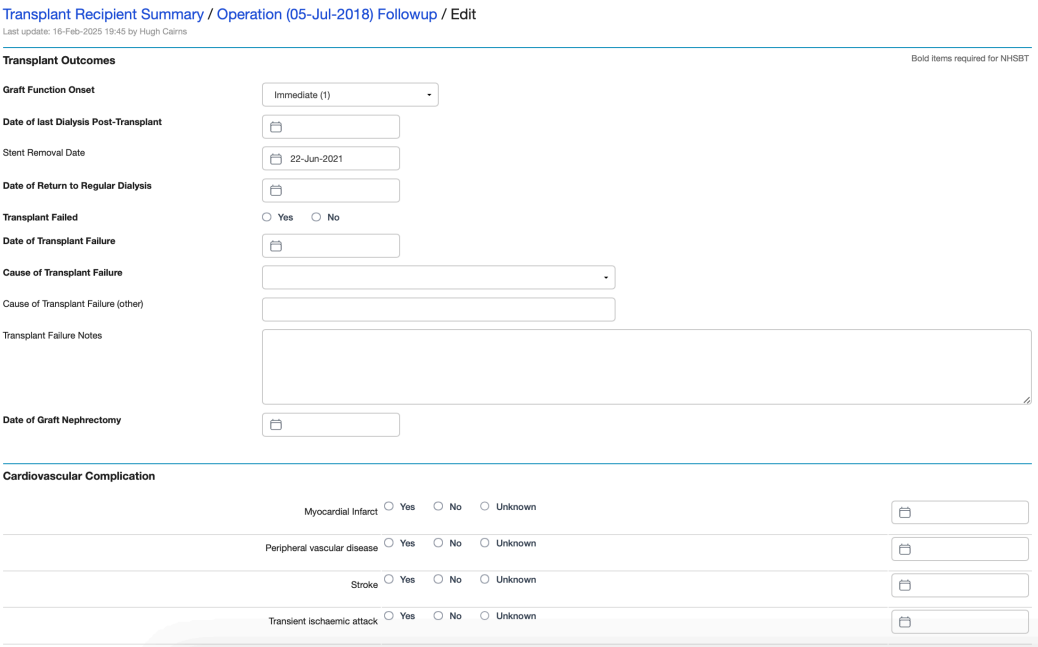
Recipient's Workup – selecting this option from the Summary will then take you to the work up page – fill in as much of this page as possible and click on the blue 'create' tab at the bottom of the page. Select the Transplant Recipient Summary to go back to the main summary page.

5.3.5. Recipient Operation

This option is available from the drop down menu. Complete as much of this page as possible (**required fields** are Op Date, Op Type, Op Site (hospital), Operation Number (i.e. is this the 1st, 2nd or 3rd Tx) Donor type, If live then relationship. If cadaveric go to cadaveric part and enter cadaveric type), Date of operation and click on the blue 'create' tab when done. Select the transplant Recipient Summary to go back to the main summary page.

5.3.6. Follow-Up

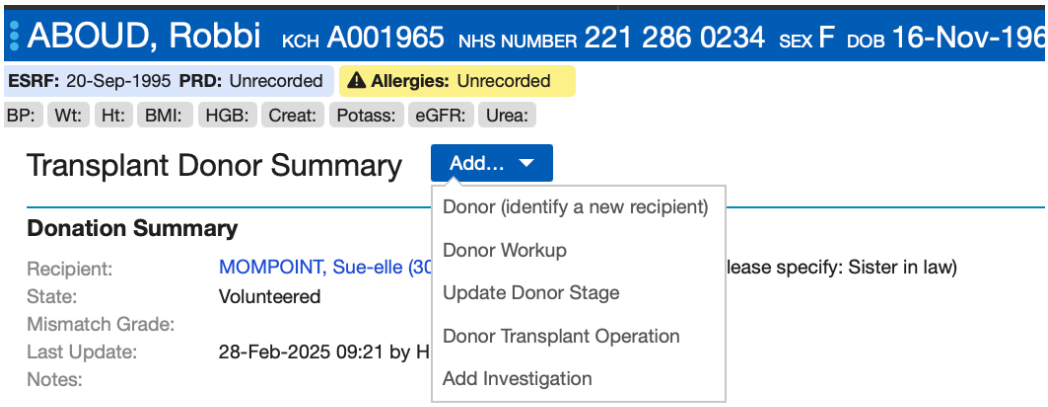
On the main summary page under the recipient operations section at the bottom, there is a follow up heading – under in blue writing there is a tab 'Enter Details'. Select this option. It will take you to the follow up page, complete as much of this section as possible (what would be on the follow up paper version), also under the 'Transplant Rejection' heading, click add to add each episode of rejection in. When done click on the blue 'create' tab when done. **It is important that the follow up section is kept updated as and when new follow up details occur.** (This section will be replacing the paper versions of the follow up document we currently complete and send to the renal registry.) If a patient has a rejected transplant you will need to add each rejection in as separate episodes.



Transplant Operation Follow-Up form

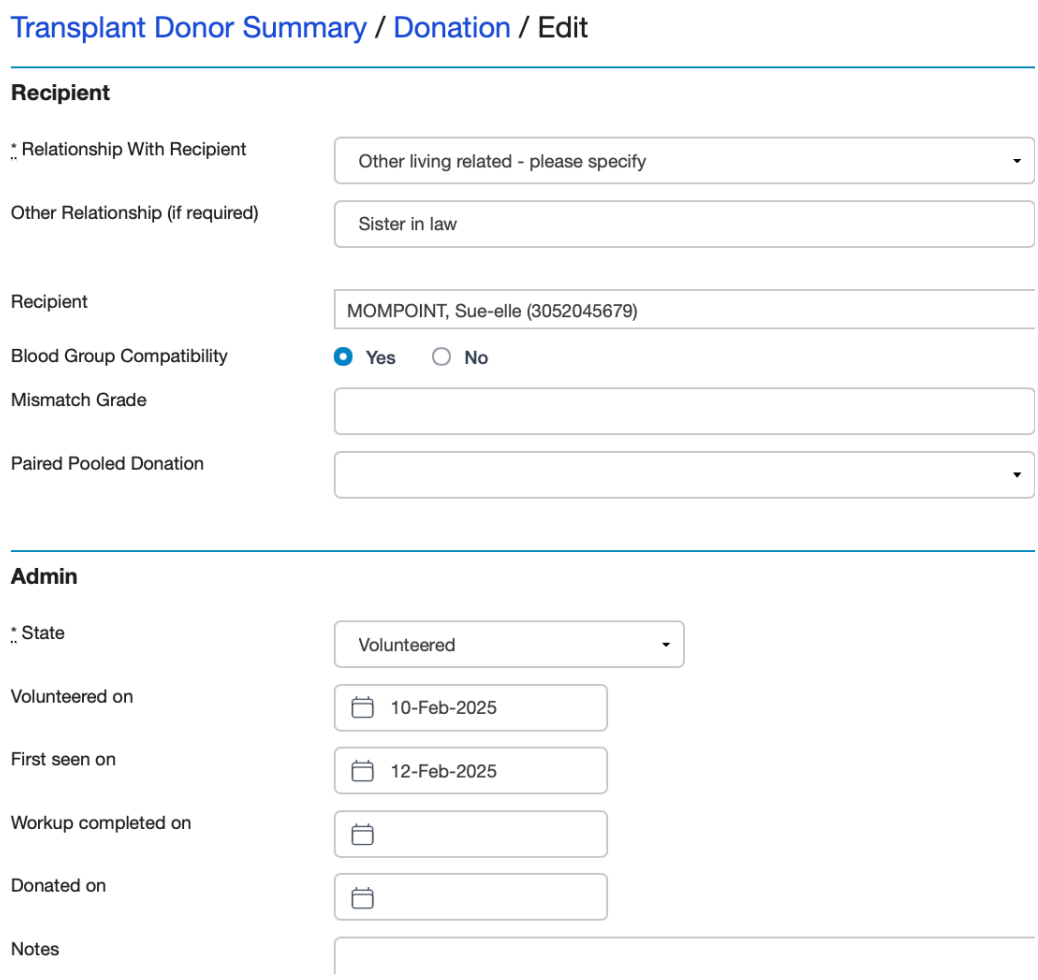
5.3.7. Live Donor Workup

Potential Live Kidney Donors can be tracked through Renalware and data recorded related to the workup process and the donor operation. This depends on creating a Live Donor modality for the patient: once this is done, Donor Summary will appear as an option in the Left Gutter and work up and other data can be entered.



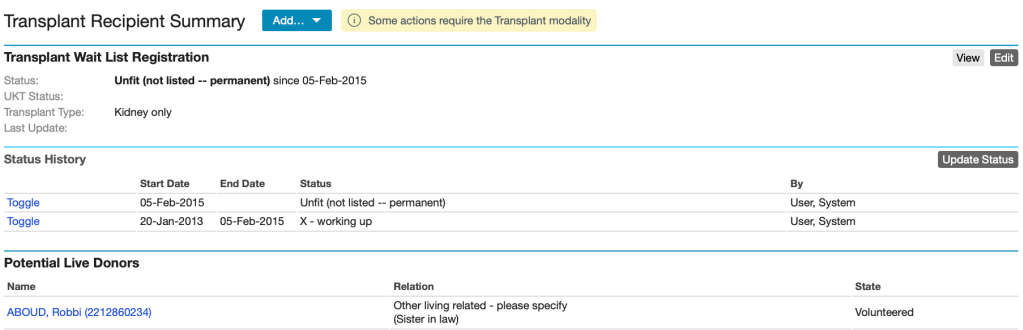
Transplant Donor Summary with options displayed

As seen below, the potential recipient for the live donor can be selected from the list of patients in Renalware and entered into the Recipient details section:



Transplant Donation entry form

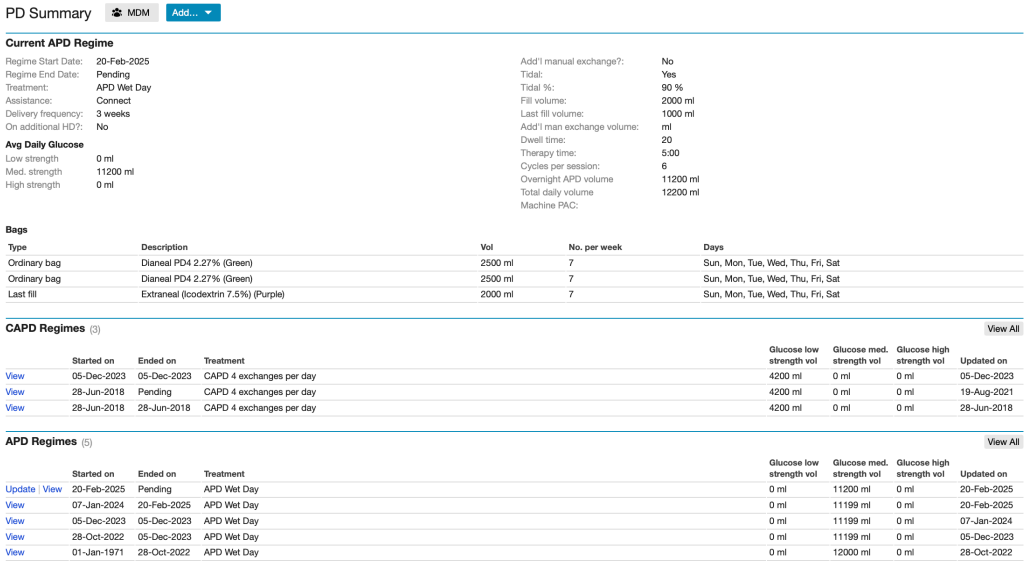
Once selected, the Recipient will appear on the Summary screen for easy access of that patient's records. Equally, once the potential recipient for a Live Donor is selected, the Live Donor will appear on the Recipient Summary providing a link back to the potential donor(s).



Transplant Recipient Summary with link to a potential live donor

5.4. Peritoneal Dialysis (PD)

The PD screens are accessed through the Left Gutter. **Many of the screens for PD can only be created if the patient has a Modality of PD.** The main PD Summary screen displays the patient's current regime and any historical APD/CAPD regimes.



PD Summary MDM Add...

Current APD Regime

Regime Start Date:	20-Feb-2025	Add'l manual exchange?:	No
Regime End Date:	Pending	Tidal:	Yes
Treatment:	APD Wet Day	Tidal %:	90 %
Assistance:	Connect	Fill volume:	2000 ml
Delivery frequency:	3 weeks	Last fill volume:	1000 ml
On additional HD?:	No	Add'l man exchange volume:	ml
		Dwell time:	20
		Therapy time:	5:00
		Cycles per session:	6
		Overnight APD volume	11200 ml
		Total daily volume	12200 ml
		Machine PAC:	

Avg Daily Glucose

Low strength	0 ml
Med. strength	11200 ml
High strength	0 ml

Bags

Type	Description	Vol	No. per week	Days
Ordinary bag	Dianeal PD4 2.27% (Green)	2500 ml	7	Sun, Mon, Tue, Wed, Thu, Fri, Sat
Ordinary bag	Dianeal PD4 2.27% (Green)	2500 ml	7	Sun, Mon, Tue, Wed, Thu, Fri, Sat
Last fill	Extraneal (Icodextrin 7.5%) (Purple)	2000 ml	7	Sun, Mon, Tue, Wed, Thu, Fri, Sat

CAPD Regimes (3) View All

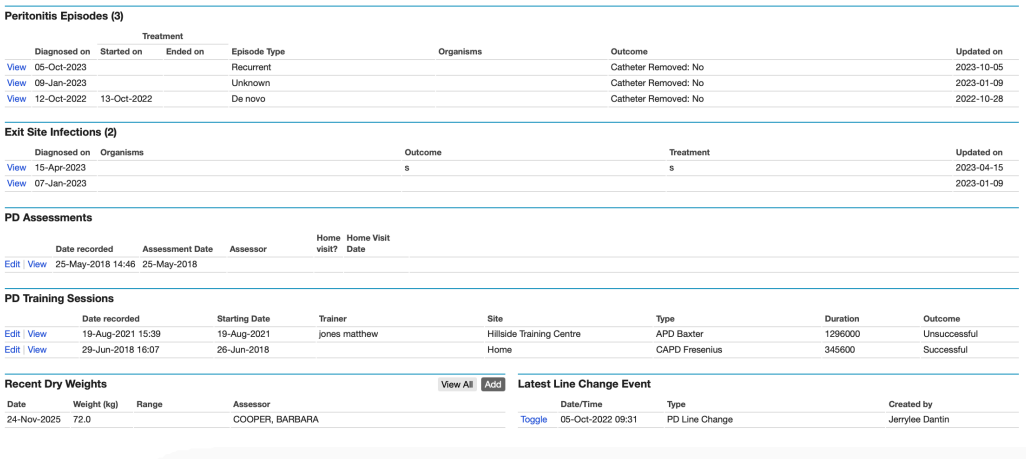
	Started on	Ended on	Treatment	Glucose low strength vol	Glucose med. strength vol	Glucose high strength vol	Updated on
View	05-Dec-2023	05-Dec-2023	CAPD 4 exchanges per day	4200 ml	0 ml	0 ml	05-Dec-2023
View	28-Jun-2018	Pending	CAPD 4 exchanges per day	4200 ml	0 ml	0 ml	19-Aug-2021
View	28-Jun-2018	28-Jun-2018	CAPD 4 exchanges per day	4200 ml	0 ml	0 ml	28-Jun-2018

APD Regimes (5) View All

	Started on	Ended on	Treatment	Glucose low strength vol	Glucose med. strength vol	Glucose high strength vol	Updated on
Update | View	20-Feb-2025	Pending	APD Wet Day	0 ml	11200 ml	0 ml	20-Feb-2025
View	07-Jan-2024	20-Feb-2025	APD Wet Day	0 ml	11199 ml	0 ml	20-Feb-2025
View	05-Dec-2023	05-Dec-2023	APD Wet Day	0 ml	11199 ml	0 ml	07-Jan-2024
View	28-Oct-2022	05-Dec-2023	APD Wet Day	0 ml	11199 ml	0 ml	05-Dec-2023
View	01-Jan-1971	28-Oct-2022	APD Wet Day	0 ml	12000 ml	0 ml	28-Oct-2022

Main Regimes section of the PD Summary screen

The PD Summary also includes information about any Peritonitis Episodes, Exit Site Infections, Assessments, Training Sessions, and Dry Weights:



Peritonitis Episodes (3)

	Diagnosed on	Treatment Started on	Treatment Ended on	Episode Type	Organisms	Outcome	Updated on
View	05-Oct-2023			Recurrent		Catheter Removed: No	2023-10-05
View	09-Jan-2023			Unknown		Catheter Removed: No	2023-01-09
View	12-Oct-2022	13-Oct-2022		De novo		Catheter Removed: No	2022-10-28

Exit Site Infections (2)

	Diagnosed on	Organisms	Outcome	Treatment	Updated on
View	15-Apr-2023		s	s	2023-04-15
View	07-Jan-2023				2023-01-09

PD Assessments

	Date recorded	Assessment Date	Assessor	Home visit?	Home Visit Date
Edit | View	25-May-2018 14:46	25-May-2018			

PD Training Sessions

	Date recorded	Starting Date	Trainer	Site	Type	Duration	Outcome
Edit | View	19-Aug-2021 15:39	19-Aug-2021	jones matthew	Hillside Training Centre	APD Baxter	1296000	Unsuccessful
Edit | View	29-Jun-2018 16:07	26-Jun-2018		Home	CAPD Fresenius	345600	Successful

Recent Dry Weights View All Add

Date	Weight (kg)	Range	Assessor
24-Nov-2025	72.0		COOPER, BARBARA

Latest Line Change Event

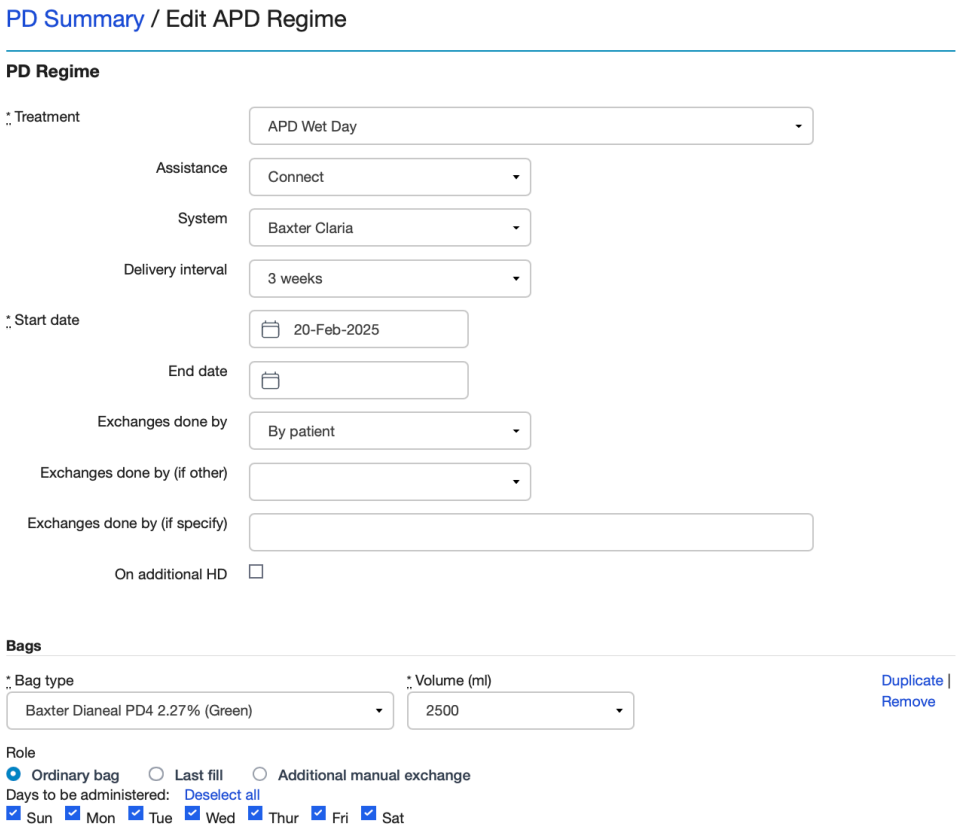
	Date/Time	Type	Created by
Toggle	05-Oct-2022 09:31	PD Line Change	Jerrylee Dantin

PD Summary screen, continued

5.4.1. PD Regime data

For patients starting PD, the PD regime type must be selected (CAPD or APD) and then the data entered for the particular PD regime. As you can see, this covers the type of PD (e.g. APD Wet Day, APD Wet Day Assisted, CAPD with number of exchanges and whether Assisted or not) and then the details about the PD fluid used, the volumes, tidal or not, last fill, additional manual exchanges and whether has additional HD. The Start Date for each PD regime will also be the End Date for any previous PD regime if the patient has one. **For the Last Fill for an APD regime it is important that the bag is entered as a "`Last Fill`" so the system knows** which fluid is being used as the Last Fill.

Once a patient has an APD or CAPD regime, this can be changed and the current regime is available as a baseline so many adjustments to a PD regime may be very easy to enter. For example, if a CAPD patient is being changed from 4 bags to 5 bags per day with just an additional bag, only the additional bag needs to be entered.



PD Regime Edit form

5.4.2. PD Peritonitis and Exit Site Infections

PD peritonitis data and exit site infection data can be entered and then subsequently edited as new information becomes available. **It is important that the type of PD peritonitis (e.g. De Novo, Recurrent, Relapsing) be recorded** as this is used for audit and also the Quarterly Quality Indicators return.

5.4.3. PD Assessment and PD Training

Prior to starting PD, information about the suitability of a patient for PD can be recorded using the PD Assessment screen. Information about PD training can also be recorded using the PD Training screen.

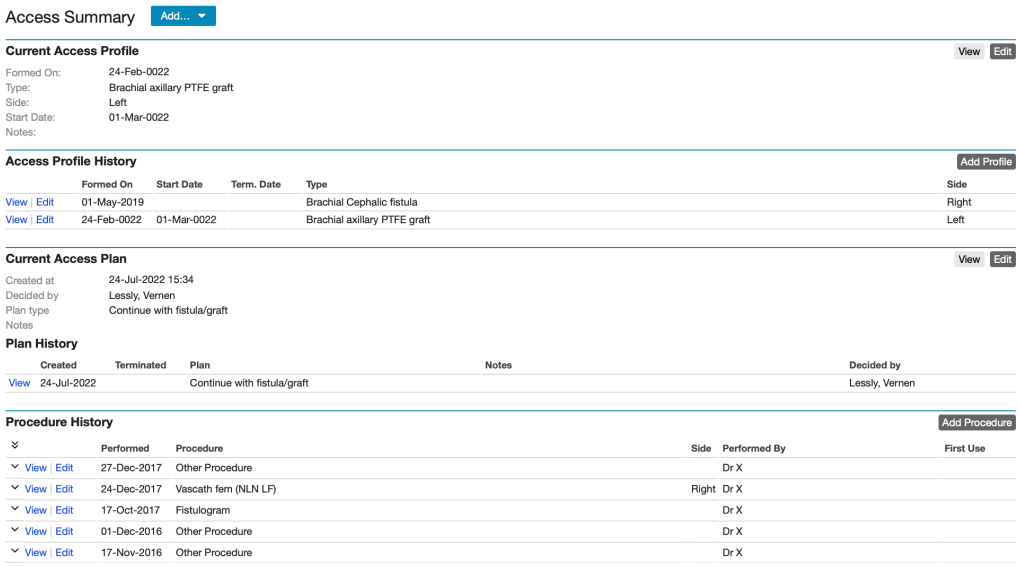
5.4.4. PET and Adequacy

Biochemistry results for the PET and Adequacy tests can be entered and the PET and Adequacy values are then calculated.

5.5. Access Summary

Information about patients' access for dialysis are recorded and displayed through the Access Summary screen (left gutter). This covers Access Procedures (so both for HD and PD), Access Profile, Access Plan, Access Assessments, Ease of Needling of Vascular Access (MAGIC) and Risk of Venous Needle Dislodgement (VND). Data can be entered via the Add button at the top or by Edit / Add in each section.

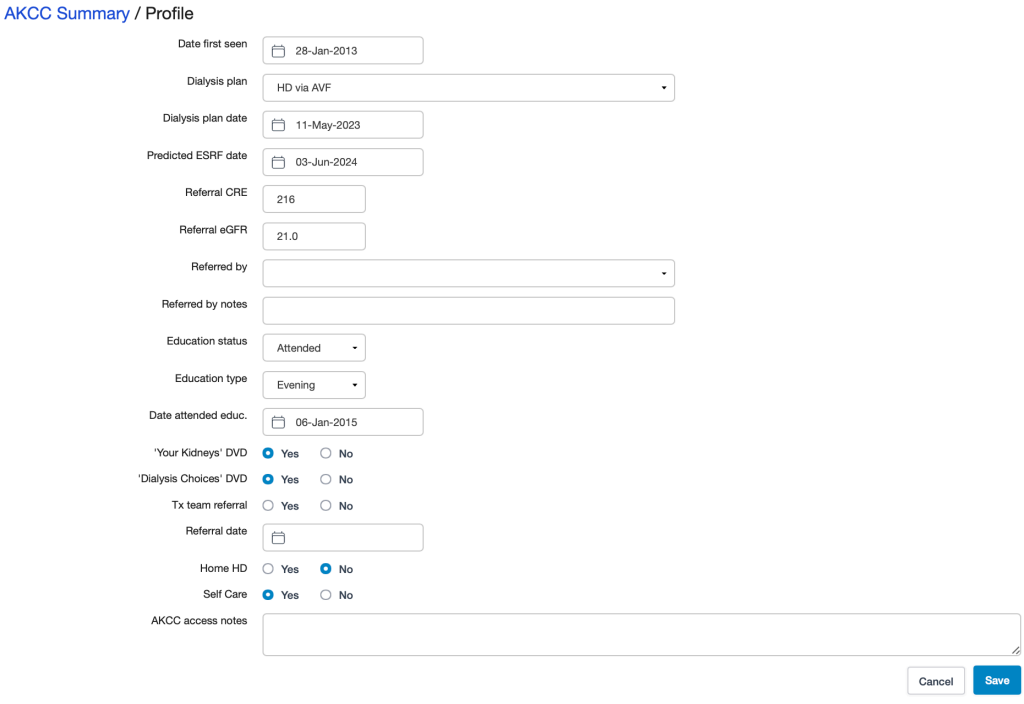
Many of these fields are also displayed on relevant other screens elsewhere. For example Access Profile, Access Plan, MAGIC and Risk VND shown on HD screens.



Access Summary screen sample

5.6. Advanced Kidney Care Clinic (AKCC)

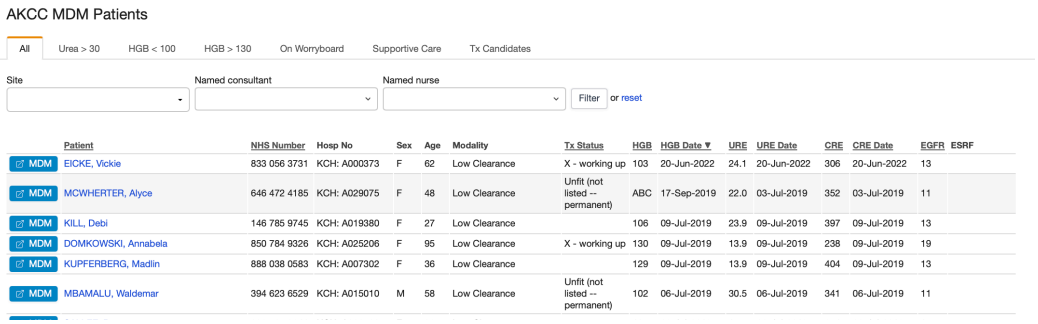
The AKCC information is entered via the link in the left gutter. The basic information includes Date First Seen in AKCC, Dialysis/RRT Plan and the Date of the Plan, Predicted ESRF Date, Referral Creatinine and then various bits of information about patient education. Some of the information may not be known when first seen and therefore fields may be left blank and completed subsequently.



AKCC Profile entry form

Additional information useful for the management of AKCC patients can also be seen and entered on this screen (Clinical Frailty Score and Advanced Care Plan). This information can also be entered and seen on the Clinical Profile (left gutter).

If the AKCC data is changed or updated, the new information will be displayed. Data related to AKCC can be seen on the AKCC MDM screen for each patient and groups of patients found via the AKCC MDM listing from the top banner. Once within the MDM patient list, this can be filtered to find different groups of patients (e.g. based on blood results, whether for Supportive Care, by site, Named Consultant and Named Nurse).



AKCC MDM Patients

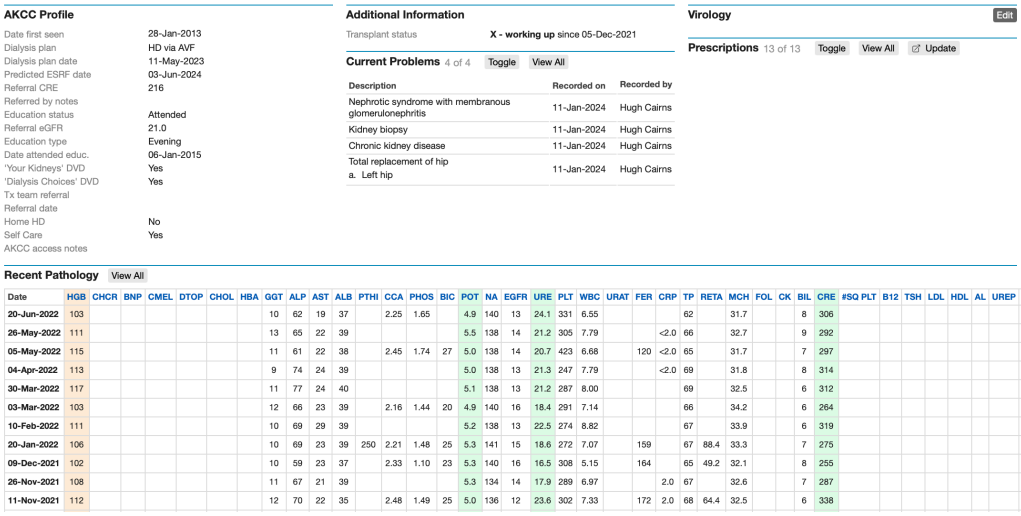
All | Urea > 30 | HGB < 100 | HGB > 130 | On Worryboard | Supportive Care | Tx Candidates

Site | Named consultant | Named nurse | Filter or reset

	Patient	NHS Number	Hosp No	Sex	Age	Modality	Tx Status	HGB	HGB Date ▼	URE	URE Date	CRE	CRE Date	EGFR	ESRF
MDM	EICKE, Vickie	833 056 3731	KCH: A000373	F	62	Low Clearance	X - working up	103	20-Jun-2022	24.1	20-Jun-2022	306	20-Jun-2022	13	
MDM	MCWHERTER, Alyce	646 472 4185	KCH: A029075	F	48	Low Clearance	Unfit (not listed -- permanent)	ABC	17-Sep-2019	22.0	03-Jul-2019	352	03-Jul-2019	11	
MDM	KILL, Debi	146 785 9745	KCH: A019380	F	27	Low Clearance		106	09-Jul-2019	23.9	09-Jul-2019	397	09-Jul-2019	13	
MDM	DOMKOWSKI, Annabela	850 784 9326	KCH: A025206	F	95	Low Clearance	X - working up	130	09-Jul-2019	13.9	09-Jul-2019	238	09-Jul-2019	19	
MDM	KUPFERBERG, Madlin	888 038 0583	KCH: A007302	F	36	Low Clearance		129	09-Jul-2019	13.9	09-Jul-2019	404	09-Jul-2019	13	
MDM	MBAMALU, Waldemar	394 623 6529	KCH: A015010	M	58	Low Clearance	Unfit (not listed -- permanent)	102	06-Jul-2019	30.5	06-Jul-2019	341	06-Jul-2019	11	

AKCC MDM listing with links to a patient's Summary

The "MDM" link on the list takes the user to the complete AKCC Profile and other relevant information:



AKCC Profile

Date first seen	28-Jan-2013
Dialysis plan	HD via AVF
Dialysis plan date	11-May-2023
Predicted ESRF date	03-Jun-2024
Referral CRE	216
Referred by notes	
Education status	Attended
Referral eGFR	21.0
Education type	Evening
Date attended educ.	06-Jan-2015
'Your Kidneys' DVD	Yes
'Dialysis Choices' DVD	Yes
Tx team referral	
Referral date	
Home HD	No
Self Care	Yes
AKCC access notes	

Additional Information

Transplant status: **X - working up** since 05-Dec-2021

Current Problems 4 of 4 — Toggle | View All

Description	Recorded on	Recorded by
Nephrotic syndrome with membranous glomerulonephritis	11-Jan-2024	Hugh Cairns
Kidney biopsy	11-Jan-2024	Hugh Cairns
Chronic kidney disease	11-Jan-2024	Hugh Cairns
Total replacement of hip a. Left hip	11-Jan-2024	Hugh Cairns

Virology — Edit

Prescriptions 13 of 13 — Toggle | View All | Update

Recent Pathology View All

Date	HGB	CHCR	BNP	CMEL	DTOP	CHOL	HBA	GGT	ALP	AST	ALB	PTHI	CCA	PHOS	BIC	POT	NA	EGFR	URE	PLT	WBC	URAT	FER	CRP	TP	RETA	MCH	FOL	CK	BIL	CRE	#SQ PLT	B12	TSH	LDL	HDL	AL	UREP
20-Jun-2022	103							10	62	19	37		2.25	1.65		4.9	140	13	24.1	331	6.55				62		31.7			8	306							
26-May-2022	111							13	65	22	39					5.5	138	14	21.2	305	7.79			<2.0	66		32.7			9	292							
05-May-2022	115							11	61	22	38		2.45	1.74	27	5.0	138	14	20.7	423	6.68		120	<2.0	65		31.7			7	297							
04-Apr-2022	113							9	74	24	39					5.0	138	13	21.3	247	7.79			<2.0	69		31.8			8	314							
30-Mar-2022	117							11	77	24	40					5.1	138	13	21.2	287	8.00				69		32.5			6	312							
03-Mar-2022	103							12	66	23	39		2.16	1.44	20	4.9	140	16	18.4	291	7.14				66		34.2			6	264							
10-Feb-2022	111							10	69	29	39					5.2	138	13	22.5	274	8.82				67		33.9			6	319							
20-Jan-2022	106							10	69	23	39	250	2.21	1.48	25	5.3	141	15	18.6	272	7.07		159		67	88.4	33.3			7	275							
09-Dec-2021	102							10	59	23	37		2.33	1.10	23	5.3	140	16	16.5	308	5.15		164		65	49.2	32.1			8	255							
26-Nov-2021	108							11	67	21	39					5.3	134	14	17.9	289	6.97			2.0	67		32.6			7	287							
11-Nov-2021	112							12	70	22	35		2.48	1.49	25	5.0	136	12	23.6	302	7.33		172	2.0	68	64.4	32.5			6	338							

AKCC Profile displayed from the MDM list