**Changes to the UK Renal Registry Timeline (aka ‘RR7’ codeset)**

**UK Renal Registry Dataset Consultation, October 2021**

**Key messages**

* The Renal Timeline is changing with the addition of specific codes to allow centres to explicitly state whether (and how) a patient with CKD 4/5 not on renal replacement therapy is being cared for.
* The way that the timeline is being sent to the UK Renal Registry is also changing significantly in the UKRDC feed.
* In the UKRDC feed - rather than a date ordered list of movements it is structured as ‘AdmissionReasons’ (aka treatment type - for example ‘Haemodialysis’) and ‘DischargeReason’ (for example ‘Transferred to another centre’ or ‘recovered kidney function’). These are sent together in one XML block.
* Some of the historic codes in the timeline codeset (‘RR7’) do not fit with that structure (For example ‘Transferred in on…’, which is neither an AdmissionReason or a DischargeReason). Instead this concept is sent as an ‘AdmissionSource’ which is a further attribute of the AdmissionReason.
* Despite those changes we have taken a decision to retaining the ‘Timeline’ in an updated form, and are not changing any of the existing code numbers. We think this will help centres, and indeed ourselves transition to the new system without losing information.
* Some system suppliers might not choose to use an RR7 timeline any longer however – and instead translate the local way that treatment type is stored straight into the UKRDC schema. As long the UKRR can translate the information sent by the centre using the UKRDC schema accurately back into a timeline this is local decision.
* In the attached excel document the left table is the new ‘UKRDC7’ codeset. Codes highlighted in pink are being withdrawn. Codes in light grey are either ‘AdmissionReasons’ or they are retained to allow existing analysis at the UKRR to still work. Codes in dark grey are ‘DischargeReasons’
* For developers the two right tables are the AdmissionReasons and DischargeReasons separately.
* We are going to publish a set of clinical scenarios to illustrate how the more difficult concepts can be coded. Examples will be transfers between adult and paediatric care and renal transplantation (especially if it takes place in a different centre)

Your comments on this are very welcome using the rradmin@renalregistry.nhs.uk email address.

**Additional Information and explanation of the changes**.

For many (but not all) clinicians, clinical systems administrators and clinical system designers the 'Renal Registry Timeline' has been the touchstone for us to understand where a patient is on their kidney pathway. It has been the core of many renal systems with a date ordered list of coded treatment types (using the RR7 codeset).

Over the years the number of items has increased, and there has not always been consistency about what the timeline was trying to capture. An example is that ‘assisted APD’ is the same treatment as ‘APD’, in the same way that ‘Haemodialysis’ is essentially the same treatment whether done at home or incentre. ‘Hospital’ and ‘Satellite’ are not well defined and increasingly indistinguishable. One of the easy changes to explain therefore has been to amend the qualifier for all the dialysis treatments to a consistent ‘Home’, ‘Incentre’ and ‘Assisted’.

Another more recent development is the UKRDC feed as a way to transfer information from a renal unit to the UKRR. The UKRDC schema is just as logical in its structure as the familiar timeline, but has a very different concept of how information is grouped.

A good example is that in the UKRDC schema an episode of treatment (‘AdmissionReason’ = ‘Haemodialysis’ for example) has in built attributes of ‘AdmissionSource’ (meaning ‘did the patient transfer into this centre from somewhere else’) and ‘DischargeReason’ (meaning ‘why did this episode end’- be that transferring to another centre, or in the case of a kidney transplant – the graft failing). There is no UKRDC schema ‘AdmissionReason’ = ‘Transferred to another centre’ because it is illogical – it is a ‘DischargeReason’ and therefore this information is only accepted as an attribute to the episode of care which it concludes.

As introduced above, in the UKRDC there are mutually exclusive ‘AdmissionReasons’ and ‘DischargeReasons’. These two lists still match the new UKRDC7 timeline codes although some of the duplication of treatment types (such as assisted APD described above) are being depreciated, and some of the descriptions have also been improved (AKI for example rather than ARF).

At the UKRR our thought processes (and codes) still visualise the patient pathway in the ‘treatment timeline’ concept we have used for 25 years. We therefore still anticipate translating the UKRDC information into the complete list of UKRDC7 codes for analysis. For this reason, concepts such as ‘transferred in on…’ are still listed in the UKRDC7 code list. Please note though that this concept is neither an ‘Admission’ or ‘Discharge’ reason, and so logically cannot be directly coded in the UKRDC. Like in the example above – ‘Transferred in on…’ is determined by the presence of an ‘AdmissionSource’. This is a crucial signal particularly if it is attached to the earliest dated RRT treatment to differentiate a patient already established on RRT in another centre, from an incident one at this centre.

For a system designer, note therefore that, there is no necessity to translate any local ways of recording the patient pathway into a UKRDC7 treatment timeline before re-translating it into the UKRDC schema. In established ‘timeline based’ clinical systems though it might be a logical step to adapt the current timeline to match the new UKRDC7 timeline here. For that reason we are making the entire UKRDC7 code set public. In other cases though, it would be simpler to code the local means of recording information directly into admission and discharge reasons and to create the ‘AdmissionSource’ and ‘DischargeReasons’ directly.

Finally, with regard to the new codes, we would value opinion on their usefulness to clinical audit, and whether the majority of renal clinical systems store this information in a way which could be translated to these codes. The nature of the care of a patient between an eGFR of 30ml/min and RRT start is a significant focus of attention by renal networks, RSTP and GIRFT which is why they have been added.

We are currently developing a series of worked examples of how a clinical scenario can be consistently coded into the UKRDC schema, and onto a UKRR treatment timeline which we will then share.