

Closing Information Loop for Home Dialysis

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The South West Wales home nocturnal dialysis programme is an award-winning service recognised as a UK beacon centre for treatment innovation.

Here the application of the Prudent Healthcare principles has created a new treatment option that is achieving more for less – more for patients' wellbeing, longevity and quality-of-life with less use of NHS resources.

Planning and development

Through co-production we developed an efficient, gentle and regular form of dialysis that is performed by the patient in their own home as they sleep.

This treatment innovation has been possible by service modernisation tailored towards supportive self-care enabled by digital innovation. Crucially, the use of technology consolidated our clinical notes to a single eRecord which also allows patients access their blood results and prescribed treatments enabling them as active partners in their own care.

Clinical data previously recorded by a healthcare professional is now recorded by the patient at home. This vast quantity of data is needed to oversee the safety and efficiency of home therapy. This data is paper recorded; a final element to our home dialysis service awaiting digitisation.

Key findings

The health technology exemplar process has enabled the development of a 'digital dialysis data tool'. Patients are now able

to enter their own daily treatment details and observations onto a digital platform that links directly into our consolidated eRecord to fully digitalise the service (see the figure below).

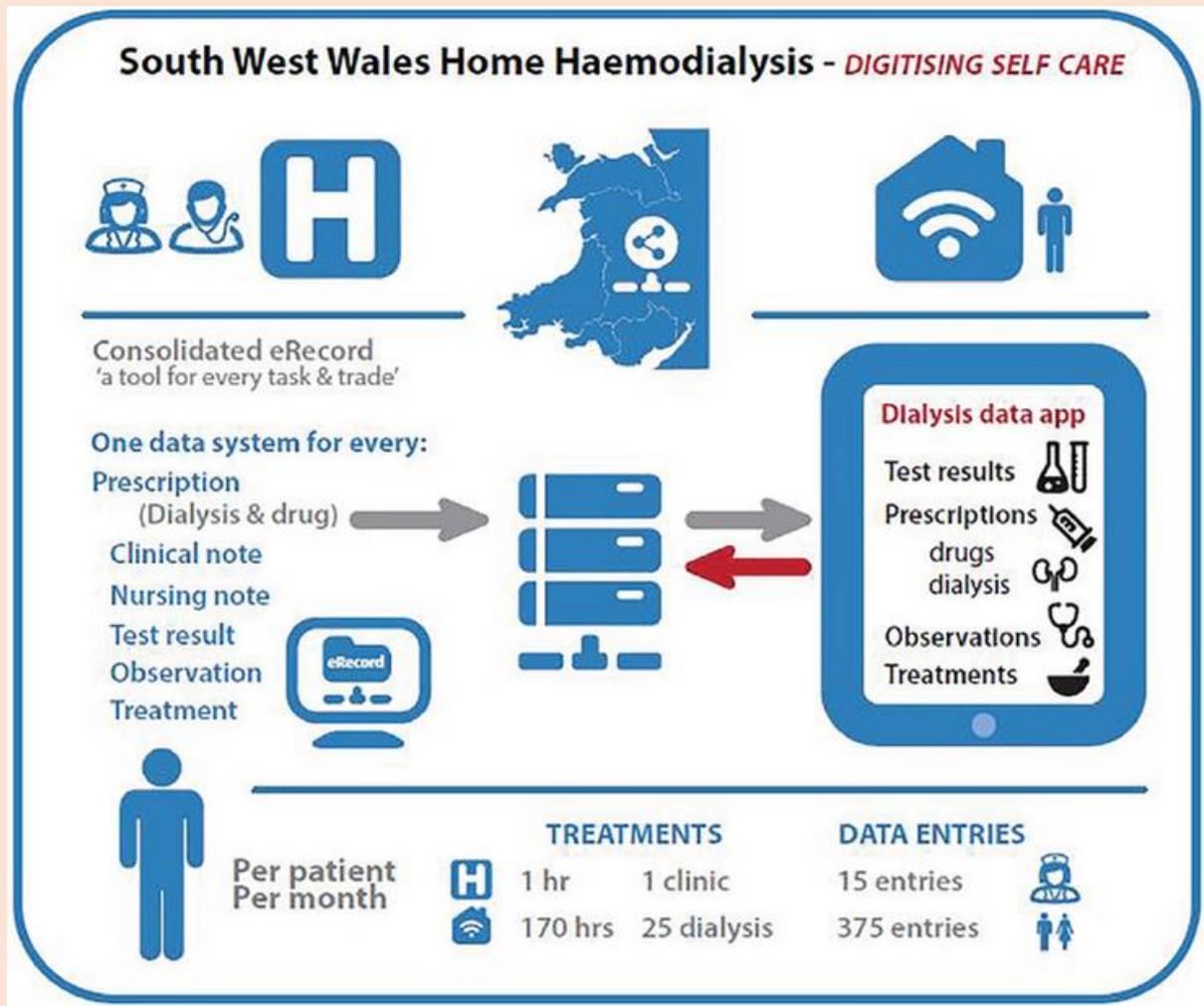


Figure 1

South West Wales Home Haemodialysis – Digitising Self Care

One data system for every prescription: Clinical Note, Nursing Note, Test Result, Observation, Treatment

Dialysis data app: Test results, Prescriptions, Drug Dialysis, Observations, Treatments

Per patient; 1 hour of treatment, 1 clinic, 15 data entries

Per month; 170 hours of treatment, 25 dialyses, 375 data entries

End of description.

This development has enabled real-time capturing of home dialysis treatment observations which has allowed enhanced service delivery in terms of rapid intervention enabled by continuous monitoring and improved compliance for recording treatment observations. By practically eliminating unnecessary replication and transcribing, this time can now be better spent providing training and support.

Fit with prudent principles

Aligning an innovative project such as this with a prudent approach ensures robustness and will likely be a success. The benefits are:

Efficiency & quality improvement:

- Real time return of patient data (enabling rapid intervention);
- Eliminates staff time spent on data entry (1 WTE per 100 patients);
- Standardisation of data return with automated checks;
- Reduced replication and transcription errors;
- Patient empowerment/accountability;
- Closed loop for digital communication (two way data sharing)

Enhanced service delivery:

- Virtual clinics: centralised monitoring in real time;
- Improved preparation for actual clinics – improving patient flow;
- Reduced inappropriate variation; and,
- Treatment decision made on sound evidence in controlled environments with full real time access to the patient's clinical information.

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