Vantive

Evidence Series:

Remote monitoring of peritoneal dialysis:

Evaluating the impact of the Claria Sharesource system

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Sharesource
REMOTE PATIENT MONITORING

BACKGROUND

> Although PD is a valued therapy option because it is home-based, flexible and allows patients to be largely autonomous (Renal Association, 2017), the proportion of renal replacement therapy-dependent patients who are on PD remains low at 5.9% (UK Renal Registry, 2018).

> Potential barriers to PD include patient anxieties about the safety or their ability to perform their own therapy without direct medical supervision, combined with clinicians' concerns about their ability to determine patients' adherence (Wallace *et al.* 2017).

> Remote patient management (RPM) provides the opportunity to overcome some of these barriers.

OBJECTIVES

To evaluate the impact of Homechoice Claria with Sharesource and discuss the findings relating to clinicians' and patients' experiences and its impact on the working activities of PD nurses.

ENDPOINTS

> Clinician and patient experience

> Resource utilisation

METHODS

Data were collected through **3 processes:**

1. Longitudinal observations - to log the **time** PD nurses spend on different types of tasks, specifically whether the task is: **proactive, reactive or routine.**

Proactive tasks: anticipatory, preventative and change oriented, such as clinician discussions, phone calls/visits to patients and reviewing daily dialysis records.
Reactive tasks: responsive, such as urgent patient consultations and assessments.
Routine tasks: regular planned activities, such as scheduled line changes and review consultations.

2. An **online questionnaire** completed by PD nurses before their unit introduced Homechoice Claria with Sharesource and again afterwards to gather information around time management, logistics, support, and satisfaction with APD.

3. **Telephone interviews** - Patients and nurses were interviewed both pre- and post-introduction of Homechoice Claria with Sharesource, but doctors were only interviewed afterwards, as it was felt they have a more holistic view of unit-wide impacts. All interviews gathered information about the logistics of and satisfaction with the APD system in use at that time.

RESULTS

- A total of 47.25 hours of nursing time were analyzed.
- A total of 25 nurses from 14 units completed questionnaires pre-device and 17 from 10 units completed post-device questionnaires, at which time the mean number of patients using Homechoice Claria with Sharesource in each unit was 31.
- 7 physicians from 7 units participated in interviews.
- A total of 19 patients participated in both pre- and post-device interviews (mean age: 63.4 years), 13 of whom switched to Homechoice Claria with Sharesource between interviews.

After implementation of Homechoice Claria with Sharesource

Proactive tasks INCREASED TO **34%**

while time spent on **reactive activity** dropped from 43.5% to **27%**

ALL PARTICIPANT GROUPS FELT THAT HOMECHOICE CLARIA WITH SHARESOURCE ENABLED **EARLIER IDENTIFICATION** AND **REMEDIAL ACTION OF DIALYSIS ISSUES**

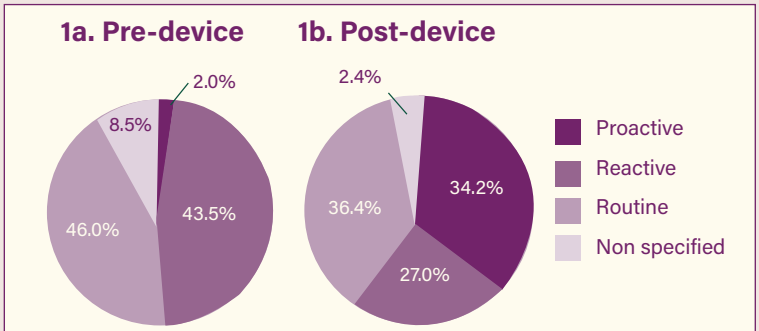

Figure 1. Percentage of time spent on proactive, reactive and routine activity pre- and post-Claria Sharesource

- Initial observations showed that only 2% of nursing time was spent on proactive tasks (Figure 1).
- Time spent on routine activity dropped from 46%to 36.4% (Figure 1).
- There was a fall in the mean number of routine visits per year reported by patients from 6.46 to 4.3 and mean reported clinic visit length falling from 55 to 34 minutes.
- This was accompanied by an increase in the frequency with which nurses reviewed patients' dialysis data.

"Spot issues with dialysis sooner, able to change prescriptions remotely."
Nurse

"Hospital can see information. Flag up problems a lot sooner rather than waiting 2-3 months."
Patient

"Early action for adherence and intervention of problems."
Doctor

RESULTS

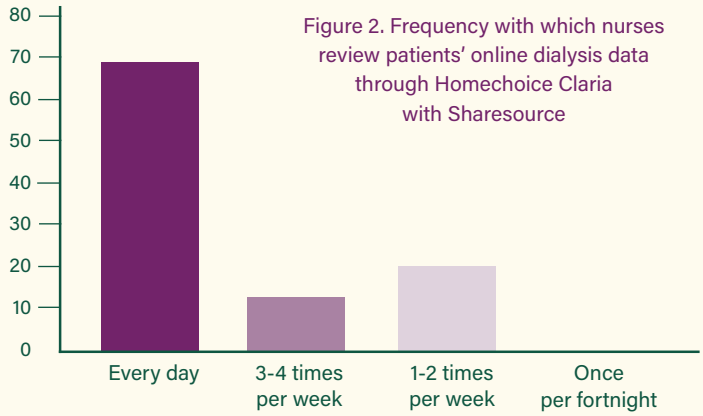

Figure 2. Frequency with which nurses review patients' online dialysis data through Homechoice Claria with Sharesource

Satisfaction:

> When asked to rate on a scale of 1 to 10 their satisfaction with Homechoice Claria with Sharesource, physicians gave a mean rating of **7.75** and nurses **8.29**, up from 7.3 for standard APD.

> Patients appeared more satisfied than clinicians: patients' initial mean rating was 9.3, which remained almost as high at 9.15 for those who switched to Homechoice Claria with Sharesource but rose to 9.67 for those who remained on standard APD.

After the introduction of Homechoice Claria with Sharesource,

68.8% of nurses

reported remotely reviewing patients' dialysis data daily, and none less frequently than once per week

CONCLUSIONS

This preliminary evaluation provides evidence that the Homechoice Claria with Sharesource APD system changes the experience and actions of patients and clinicians and that user **satisfaction levels are generally high.**

> Important to consider that its impact may be complex and not entirely as expected.

> Need for randomised-controlled trials or large observational registry studies to ascertain long term use in patients and renal services.

For safe and proper use if products mentioned herein refer to the operator manual.

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