

Evidence Series: Research Article

**Remote monitoring of
peritoneal dialysis:
Evaluating the
impact of the Claria
Sharesource system**

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BACKGROUND

APD patients are required to record details of their therapy and clinical data on a daily basis. These details are then reviewed at each clinic visit as part of the overall assessment.



Two-way connectivity provides an opportunity for early intervention of dialysis issues in what has been predominately reactive care.



Remote Patient Management (RPM) enables patients to be effectively prioritized.



APD cyclers with two-way RPM technology allow nurses to view dialysis details remotely in a timely manner, proactively manage clinical issues and make program changes as needed.



OBJECTIVES

- ✓ Evaluate the impact of RPM on nurses' behavior and practice in caring for APD patients at home.
- ✓ Assess if changing the frequency that the patient's dialysis details are remotely viewed by nurses would impact their ability to manage patients proactively.
- ✓ Identify if RPM helps improve patient management and clinic efficiency.





METHOD

Four PD nurses from 4 UK hospitals were observed prior and post use of APD with RPM

A tool was designed to log the time PD nurses spend on different types of task, specifically whether the task is:

- **PROACTIVE** – Anticipatory, preventative and change oriented (e.g. clinician discussions, phone calls/visits to patients and reviewing daily dialysis records).
- **REACTIVE** – Responsive (e.g. urgent patient consultations and assessments).
- **ROUTINE** – Regular planned activities (e.g. scheduled line changes and review consultations).



PD nurses were observed and their behavior logged throughout their working day on two occasions:

- Once between July 2015 and July 2016 (before the introduction of APD with Remote Patient Management).
- Once between September 2016 and March 2017 (6-13 months after APD with Remote Patient Management was established).

Note: Claria with Sharesource was used in this study which is similar in function and design to Amia with Sharesource.

RESULTS



After implementation of Homechoice Claria with Sharesource

Proactive tasks INCREASED TO 34%

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

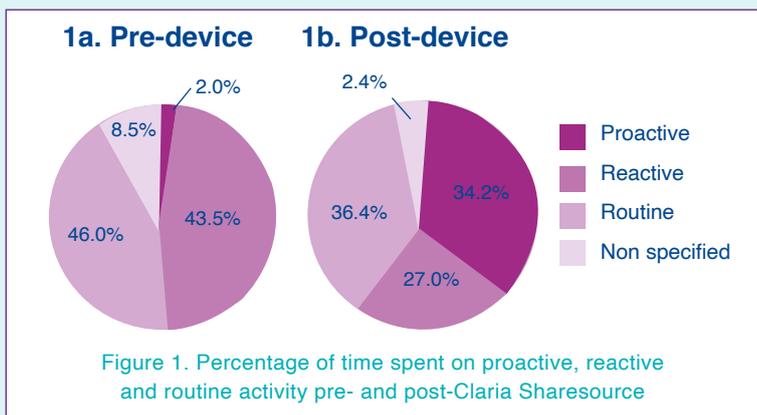
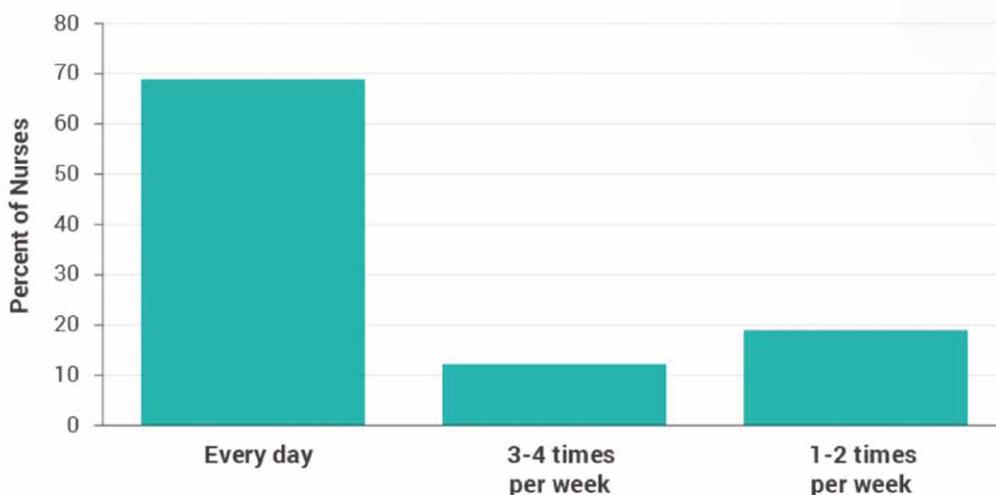


Figure 1. Percentage of time spent on proactive, reactive and routine activity pre- and post-Claria Sharesource

A total of 47.25 hours of nursing time was analyzed

RESULTS

Frequency with which Nurses Review Patients' Online Dialysis Data Using RPM



Based on survey conducted with 17 nurses post introduction of RPM

CONCLUSIONS

- ✓ Establishing RPM in four UK renal units has allowed PD nurses to increase their time spent on proactive tasks by 32 percentage points.
- ✓ Routine and reactive tasks were reduced, potentially contributing to shift of PD nurses' behaviors.
- ✓ Information received daily should allow for earlier intervention and prescription changes to address potential clinical issues.
- ✓ Clinicians switching from APD to APD with Sharesource Connectivity Platform spent a greater proportion of time on proactive patient care, which may improve patient management and nurse efficiency.



Wood, E., McCarthy, K., Roper, M. Remote monitoring of peritoneal dialysis: evaluating the impact of the Claria Sharesource system Journal of Kidney Care 2019; Vol 4 No 1.

Baxter's Homechoice Claria APD system is intended for automatic control of dialysis solution exchanges in the treatment of pediatric and adult renal failure patients undergoing peritoneal dialysis in the HOME HEALTHCARE ENVIRONMENT including comparable use in professional healthcare facilities.

The Amia Automated PD System is intended for automatic control of dialysate solution exchanges in the treatment of adult renal failure patients undergoing peritoneal dialysis. All therapies using the Amia Automated PD System must be prescribed and performed under the responsibility of a physician who is familiar and well-informed about peritoneal dialysis.

The Sharesource portal is intended for use by healthcare professionals to remotely communicate new or modified treatment parameters with compatible dialysis instruments and transfer completed treatment data to a central database to aid in the review, analysis, and evaluation of patients' historical treatment results. This system is not intended to be a substitute for good clinical management practices, nor does its operation create decisions or treatment pathways.

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US-RC42-210034 v1.0 09/21

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