



# Evidence Series: Publication

## Impact of Remote Patient Management in Hospitals Conducting APD: Shifting the Nursing Care Paradigm

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**Sharesource**  
REMOTE PATIENT MONITORING



## BACKGROUND

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

- > Two-way remote patient management (RPM) provides an opportunity for early intervention of dialysis issues in what has been predominantly reactive care.



### New APD cyclers

New APD cyclers with two-way RPM technology allow nurses to view dialysis details remotely on a daily basis, proactively manage clinical issues and make prescription changes as needed.

## RPM ENABLES PATIENTS TO BE EFFECTIVELY PRIORITIZED



## OBJECTIVES

- > Evaluate the impact of RPM on nurses' behaviour 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, impacts their ability to manage patients proactively.
- > Identify if RPM helps improve patient management and efficiency.



## ENDPOINTS

Patient Management and Efficiency.



## METHODS

### THREE PD NURSES IN 3 UK HOSPITALS WERE OBSERVED

for 2 days using  
ethnographic research  
methodology.

- > The first observation day was performed before RPM was introduced and the second after RPM was established.
- > During the observations, the time taken to complete each task by the nurse was recorded.
- > Tasks were classified into 6 categories (Table 1); and then further categorised as direct/indirect and proactive/reactive or routine tasks (Figure 1):

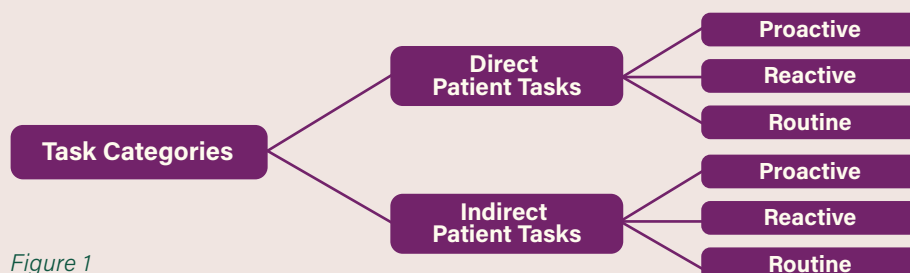


Figure 1

**Direct tasks:** patient care provided personally (face-to-face or by phone); e.g. treatments, assessment, counselling, self-care, patient education and administration of medication.

**Indirect tasks:** services rendered by the nurses for the benefit of a patient.

**Proactive tasks:** initiated by the nurse to address an issue before it is reported by the patient.

**Reactive tasks:** response to patient call or at clinic visits.

**Routine tasks:** done repetitively during training and clinical evaluation i.e. BP, blood draw, follow-up phone calls.

Table 1

| Task Categories                                                                                                    | Tasks included                                                                                                                                       | Direct Tasks | Indirect Tasks |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|
|  Travel                         | Travel to routine patient home visits/walking inside and outside of renal unit                                                                       |              | X              |
|  Telephone                      | Patient and non-patient calls, scheduling tests, answering patient and care inquiries, pharmacy, lab results                                         | X            | X              |
|  Paper Handling/<br>Review      | Reviewing patient clinic records, labs, emails, letters, tests, treatment details                                                                    | X            | X              |
|  Conversation                   | Administrative conversations, booking appointments, discussions between colleagues, pharmacy                                                         |              | X              |
|  Consultation<br>(face to face) | Patient training, medication and treatment discussions, history and assessment, tests, blood draw, consents, results, answering questions, dialyzing | X            |                |
|  Computer                       | Patient emails, letters, data input/results, patient daily records, medication update, forms, treatment details (reviewing and entering)             |              | X              |



## RESULTS

A TOTAL OF  (36 HRS AND 27 MIN)  
**2,187 MIN** OF PD NURSING TIME was observed across the 6 observations

- > 1,114 minutes were observed before RPM was introduced and 1,073 minutes after RPM was established (Figure 2).

- > Proactive patient care activities were **2% PRE-RPM** & **37% POST-RPM**

% Comparison of Time PD Nurses Spent Conducting Patient-Related Tasks Pre-RPM and Post-RPM

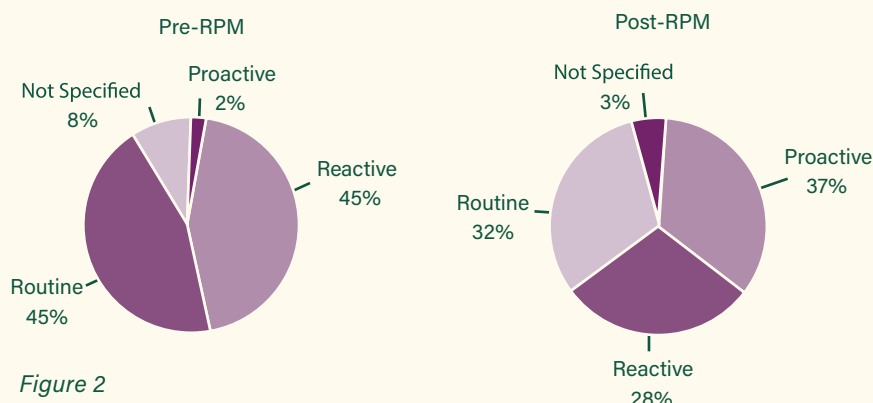


Figure 2

Comparison of % of Proactive Time Spent with Direct and Indirect Patient Tasks Observed Pre-RPM and Post-RPM

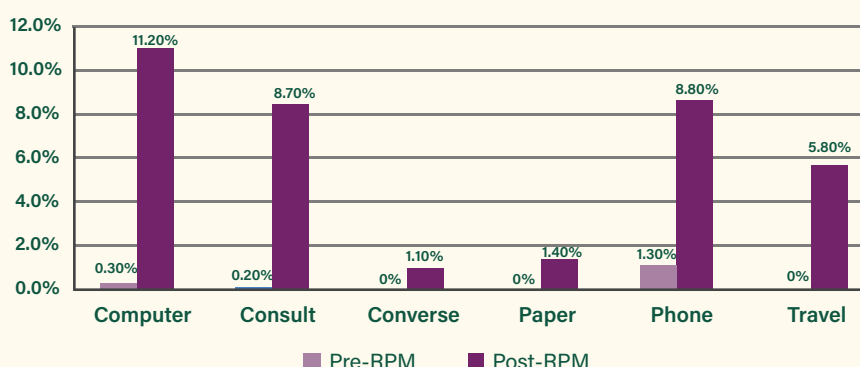


Figure 3

- > The categories of change from reactive to proactive direct and indirect activities can be found in Figure 3.



## CONCLUSIONS

- > Establishing RPM in three UK hospitals has allowed PD nurses to spend 35% more time on proactive tasks.
- > Information received daily should allow for earlier intervention and prescription changes to address clinical issues.
- > Routine and reactive tasks were reduced, potentially contributing to shift of PD nurses' behaviours away from reactive tasks, allowing better time management and greater ability to prioritise their patients more effectively, both in the clinic and home visitation.
- > Clinicians switching from APD to APD with Sharesource spent a greater proportion of time on proactive patient care, improving patient management and efficiency.

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