Patients in intermediate care are “low risk” with regard to medicines issues so they have little need for a clinical pharmacy service, right? A team of pharmacists from Harrow wish to argue otherwise

Ways clinical pharmacists can add value in intermediate care settings

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Mrs AB is an 85-year-old woman who has been admitted to hospital after a fall. The clinicians have determined that there is no serious underlying cause, so she no longer requires acute hospital care. However, an appropriate package of care is not yet available that would allow her to return home safely.

Mr TP lives at home but is bed-bound. He is developing a pressure sore. With prompt intervention, the sore can be managed but a hospital admission is not warranted at this stage. For both him and Mrs AB, intermediate care is ideal.

Intermediate care covers a wide range of services that help prevent unnecessary admission to hospital or facilitate timely hospital discharge. Such services can include medical, nursing, pharmaceutical and therapy review, care planning and rehabilitation, as well as liaison between health and social care to maximise patient independence on discharge. In many cases, intermediate care can prevent premature admission to long-term residential care. The duration of stay is usually up to six weeks, to ensure the multidisciplinary team has sufficient time to provide patient-centred care with access to specialist services if required.

Given that, generally, the medicines prescribed for patients in intermediate care change infrequently, the value of clinical pharmacy services for such patients could be questioned. Nonetheless, we believe that such services are beneficial and so we set out to gather evidence to demonstrate this value.

About the pharmacy service

Pharmacy services provided in intermediate care differ between centres, ranging from a full clinical service to a supply-only service. Literature searches suggest there is paucity of data around the benefits of clinical pharmacy services in this setting.

For the past four years a daily clinical pharmacy service has been provided to the Denham Unit, located within Rowanweald Nursing Home, Harrow. The Denham Unit exists as an intermediate care setting for residents of the borough, both for prevention of admission to hospital (step-up beds) and for rehabilitation after hospital discharge (step-down beds).

The clinical pharmacy service is modelled on the ward pharmacy service provided at the local acute trust, North West London Hospitals NHS Trust, and includes medicines reconciliation, medication review, support with self-medication and input to multidisciplinary team ward rounds.

The pharmacist is heavily involved with discharge planning, including assessing patients’ ability to manage their medicines on discharge and communicating medicine-related issues with patients’ future care providers. This helps prevent miscommunication or unintended medication changes when patients are transferred between care settings.

Auditing the service

In view of the lack of information on the impact of pharmacy services in intermediate care, we conducted an audit against agreed standards to establish the types of pharmaceutical intervention that were made on the unit and how often these occurred.

The retrospective audit reviewed all discharges between November 2010 and February 2011. Pharmacy handover forms (on which interventions were documented) and inpatient medication charts were reviewed for 46 out of the 85 patients discharged from the Denham Unit during that period (see “Audit limitations”, p379). We categorised the recorded interventions according to local clinical ward pharmacy standards.

Nature of interventions

The audit results suggest that the rate of interventions by the
Types of intervention made by pharmacists on the Denham Unit

The following are examples of interventions made by a pharmacist while providing a clinical service to the Denham Unit — an intermediate care ward.

**Dose adjustment** Mrs HN developed an infected leg wound (cellulitis), not sensitive to flucloxacillin, during her admission to the intermediate care unit. Swabs revealed sensitivity to co-amoxiclav and treatment was commenced at 625mg orally three times a day. A pharmacist noted that the patient’s renal function was deteriorating and calculated that a dose reduction was required. This was highlighted during a ward round to the medical team and a reduced dose was prescribed.

**Administration advice** Mr PP was admitted to the unit with severe burns on his hands. His past medical history included asthma, angina and hypertension. Before admission he was independent and able to take his medicines without assistance. As a result of his burns and bandaged hands, he was no longer able to get his medicines out of their original packaging.

A pharmacist discussed this issue with Mr PP, since the bandages would remain in place after discharge, and liaised with the carers who would be supporting him with daily activities after discharge. Medication support was arranged to be included in his care package until he was able to self-administer his medicines again. Mr PP was prescribed metered-dose inhalers regularly for his asthma — he also could not manage these with his hands bandaged. The pharmacist suggested to the patient’s doctor that a breath-actuated inhaler could be an option; this was prescribed and Mr PP was counselled on the change and subsequently monitored. Before discharge the pharmacist liaised with the patient’s community pharmacy and GP surgery to ensure that all medication changes, including new inhaler devices, were communicated effectively.

**Tailored treatment** Mrs NS, aged 88 years, was admitted to the unit following hospital treatment for a fractured neck of femur, which occurred as result of a fall. The pharmacist reviewed her medicines and noted that she did not appear to have been considered for any “bone protection”. On discussion with the medical team, calcium with vitamin D and alendronate were prescribed. The pharmacist discussed these treatments with the patient who then stipulated that she did not want chewable tablets. In response, the pharmacist suggested alternative formulations and the patient agreed to try Calfovit D3 sachets. A week later, the pharmacist followed this up with the patient who reported that she was happy to continue this treatment.

In total, 112 interventions were documented over four months that included:

- Reviewing and monitoring the need for drug therapy
- Determining appropriateness of a dose, frequency or formulation prescribed
- Identifying drug interactions
- Counselling patients or carers
- Formulating prescribed medications
- Identifying and initiating appropriate dose adjustments
- Substituting medication to another agent
- Reviewing and monitoring the need for drug therapy
- Determining appropriateness of a dose, frequency or formulation prescribed
- Identifying drug interactions
- Counselling patients or carers

The interventions also included therapeutic drug monitoring and complex discharge planning.

The volume of interventions was unexpected since intermediate care patients are often assumed to be “low risk”, requiring minimal clinical pharmacy input. We also believe the interventions were comparable to those seen in acute hospital practice, in terms of their variety and complexity.

**Audit limitations** We recognise that only those interventions that were documented formed part of the audit results and, consequently, the actual rate may have been higher. Given the retrospective nature of the audit, interpretation of the data was challenging because the data collection had not been planned in advance.

In addition, because we could not access the data for all 85 patients, these data may have affected the intervention rate. However, we noted that the demographics and clinical conditions of patients not included did not appear to differ from those of the cohort included; lack of access to these data was generally because the patient notes were in the coding department, in clinics or with medical secretaries.

**Taking action** Our audit results suggest that providing a clinical pharmacy service to an intermediate care unit is warranted since medicines management issues for patients in this setting can be complex. This was demonstrated by the wide variety of pharmaceutical interventions documented in our cohort of patients.

We believe that the provision of a clinical pharmacy service to intermediate care patients can help to optimise patient safety and clinical outcomes as well as reduce preventable hospital admissions.

**References**