Evaluation of pharmacist contributions to the care of inpatients in Community Hospitals


Background
Community Hospitals with inpatient beds may provide an alternative to acute hospital care. A prescription review service by pharmacists to this type of bed is often resourced according to historical patterns of service and may not reflect the severity and morbidity of the current patient population.

Pharmacist interventions in the care of patients in acute hospitals have been shown to reduce the risks associated with medicines.1,2 However an evaluation of the contribution by pharmacists to patient care in community hospitals has not been published previously.

Objectives
To quantify the types of pharmacy interventions and their potential impact on the care of inpatients in community hospitals.

Methods
• Fifteen organisations in England with community hospitals registered to take part.
• Each organisation followed detailed instructions on data collection using a standardised form that was amended and agreed following a short pilot.
• Pharmacists recorded interventions made to patient care every time they reviewed an inpatient medication chart over a 14 day period in November 2013.
• Pharmacists self-assessed the clinical impact of their interventions using an adapted framework,3,4 also piloted.

A pharmacy intervention was defined as: ‘An intervention which results in the correction of a prescribing/transcribing error or the provision of pharmaceutical advice which optimises the patient’s care’.1

Results
4077 medication charts (equating to 52,033 medication orders) were screened and an intervention by a pharmacist was made on 1 in 3 charts (1537, 37.7%) for one or more medications. A total of 2782 pharmacy interventions were made.

Patients received between 1 and 29 medicines (mode 11).

Frequency of clinical pharmacy visits ranged from 1 to 5 per week (median 2 per week).

Discussion
• Pharmacists reported making interventions to improve care for over a third of patients. Of these a third, if left undetected, might have led to moderate or severe harm to the patient.
• 62% of the pharmaceutical interventions were made during the patient’s stay, rather than on admission (30%). It appears that medication changes, requiring optimisation are made throughout the patient stay. This is important for effective design of pharmacy services.
• An average of 11 medicines were prescribed. An admission to community hospital is an opportunity to review with the patient their entire medication regimen and ensure the patient will be able to manage their medicines when they go home.
• Medicines known to be high risk were implicated in over half of the interventions classified as severe/major.

Conclusions
- Pharmacists made significant and important contributions to the safe care of inpatients in community hospitals.
- It is important that current pharmacy services to these units respond to changes in patient severity and morbidity.
- Where access to a pharmacist is limited, consideration should be given to targeting those on high risk medicines.

References:

Table 1: Level 4 Interventions involving high risk medicines

<table>
<thead>
<tr>
<th>Medicine (BNF category)</th>
<th>Number of Level 4 interventions (n=107)</th>
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<tbody>
<tr>
<td>Antibacterials</td>
<td>16 (15.0%)</td>
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<tr>
<td>Anticoagulants</td>
<td>20 (18.7%)</td>
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<tr>
<td>Bisphosphonates</td>
<td>5 (4.7%)</td>
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<tr>
<td>Insulin</td>
<td>6 (5.6%)</td>
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<tr>
<td>Opioid analgesics</td>
<td>10 (9.3%)</td>
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<tr>
<td>All others</td>
<td>50 (46.7%)</td>
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