

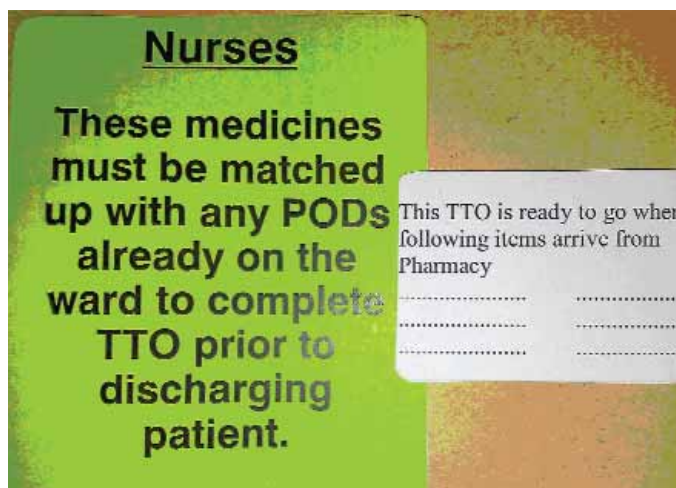
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Medicine left at discharge

— an audit of two orthopaedic wards

By Natalie Mann

Medicines dispensed for a patient are often found on the ward after the patient has been discharged. This article describes an audit undertaken by a pharmacy technician to investigate why this happens and the estimated cost implications



The stickers shown above are used at Southampton General Hospital to help ensure that patients leave hospital with all their medicines

Medicines can become separated from the patient for whom they have been dispensed for a number of reasons.¹ At Southampton General Hospital (SGH) it was noticed that despite discharge prescriptions being dispensed in advance, a significant number of medicines were being left on the wards after the patient had been discharged or transferred.

At SGH, the patient's own drugs (POD) technician is responsible for sorting out these medicines, which are either discarded or returned to pharmacy.

Aims

The aim of this audit was to establish the quantity of medicines left on two orthopaedic wards following patients' discharge or transfer, and to determine the reasons for this and the estimated cost to the trust.

Method

The audit was carried out on a trauma ward (F3) and an elective surgery ward (F1) over a three week period in January 2007. Before starting data collection, the "return" boxes

on the wards were emptied and the drug trolleys and cupboards were checked for any PODs. Copies of the discharge prescriptions for all patients on wards F1 and F3 were kept during the data collection period.

Each day, the treatment rooms and return boxes were checked for any medicines that had been left behind. For each medicine found, the reason for it being left was investigated. This was done by checking the ward planning books or asking the nurses or ward clerk. The reasons were each given a code, based on recognised reasons for medicines being left on the wards. These reasons are outlined in Panel 1, p68.

The ward pharmacist was informed of any important medicine(s) that had been left behind.

Estimating costs For medicines that had been dispensed by SGH, the cost of the medicines was calculated by multiplying the cost of a single tablet or item by the quantity left behind.

The estimated cost to the hospital of dispensing and returning the items that were left behind was also calculated. It was estimated that it takes five minutes to clinically screen the prescription for an item, five minutes to dispense it, five minutes to check it and two minutes for the POD technician to return it into the computerised stock system.

An estimate of the cost of the total time spent carrying out these tasks during the

audit period was calculated based on the basic pay for the staff involved. For the purpose of the audit it was taken that a band six pharmacist would screen the item, and band 5 technicians would dispense, check and return the items.

Results

The number of items found on each ward, the reasons given for this and the cost of the drugs dispensed by SGH is shown in Table 1 (p68).

Ward F1 (31 beds, 30 staff) generally has a higher turnaround of patients than F3 (28 beds, 38 staff). However, F1 still had fewer medicines left behind.

The most common reason for medicines being left on the wards was a failure to transfer the medicines when the patient was moved to another ward or hospital. Reasons which were classed as code 9 ("other") include:

- PODs arrived on ward after patient was discharged
- Patient died
- Tablets were changed to a liquid
- Patient refused to take the medicines

The total estimated annual cost of medicines left on these two wards is £3,055.55. Extrapolating this data to the four wards in the orthopaedic directorate gives an estimated annual cost of £6,110.34.

At the time of writing **Natalie Mann** was patient's own drugs technician at Southampton General Hospital

The total estimated cost of pharmacy staff carrying out the dispensing and returns procedure for these medicines during the three week period was £274.55.

Discussion

The results confirm the recognised reasons for medicines being left on the wards (see Panel 1). Some of these may be a result of ward staff not checking the patient's medicines on discharge.²

The SGH returns policy states that loose tablets or strips of drugs must be discarded, as must medicines from a supply outside the hospital. Items that have been issued with patient direction labels can not be put back into the dispensing robot, so storage of these medicines is an issue. Medicines in the ward need to be locked away, and the dispensary has a limited storage capacity for returns.

Some SGH supplies can be reused, but the cost of sorting, returning and rebooking may cost more than the cost of the drug. POD technicians are allocated an hour and a half to cover one ward, so time spent sorting out medicines that have been left behind comes at the expense of other tasks such as patient counselling.

This audit highlights financial implications for the trust when medicines that have been dispensed for patients are wasted. Money saved by tightening up the procedures in this directorate could be used to further improve the ward discharge service.

Many of the PODs discarded during the audit were dispensed outside the hospital and these medicines have not been included in the cost calculations for this audit. However, these costs are likely to be transferred to primary care if the patient needs to obtain these medicines from his or her GP.

At SGH, a "green sticker" system has been implemented. Pharmacy staff attach these stickers to the bag of discharge medicines to indicate that some of the PODs are on the

Panel 1: Reasons for medicines being left on wards

Code	Reason
1	Patient self-discharged
2	Patient did not wait for their medicines
3	Nurse informed that the patient has medicine at home
4	Items left in refrigerator
5	Discharge medicines from pharmacy not matched with PODs on ward
6	Medicine stopped before discharge
7	Transferred to another ward
8	Transferred to another hospital
9	Other

Table 1: Medicines left on wards F1 and F3

Ward	F1	F3
No of discharge prescriptions dispensed	70	35
No of items left behind	13	72
Reasons given (see panel for codes)	Codes: 5 (n=1) 6 (n=2) 7 (n=2) 8 (n=2) 9 (n=6)	Codes: 4 (n=1) 6 (n=16) 7 (n=22) 8 (n=15) 9 (n=18)
For medicines dispensed at Southampton General Hospital:		
Total cost of drugs left	£27.95	£148.31
Estimated annual cost of drugs left	£484.46	£2,570.70

ward and need to be added to the bag of discharge medicines by ward staff. During the audit it was realised that a similar system was needed to identify POD bags which are waiting for items from the pharmacy. A "white sticker" system is now in place for this.

Training ward staff in the use of the sticker system provides an ideal opportunity to train all grades of nursing staff in the importance of checking discharge medicines before a patient is discharged or transferred. The training package for all nurses could be adapted to include this information.

The findings of this audit have been fed back to the directorate pharmacist and the orthopaedic team. Since then, student nurses have received some POD training and have been invited to visit the pharmacy department to gain an understanding of the workflow.

Pharmacy staff can also help improve this situation. It is important that they annotate drug charts with the amount of medicines ordered and sign and date it to avoid duplication. Money could be saved if pharmacy staff checked with the patient on admission whether they had supplies of any of their medicines at home. This should be documented on the drug chart so that only new medicines need to be supplied at discharge.

Nurses should be encouraged to check the PODs against the bag of discharge medicines, especially when pharmacy staff are not on the ward at the time of discharge. All wards could be issued with a "discharge checklist" which must be followed when nurses give medicines to patients on discharge or transfer.

Limitations

Limitations of this study include the short data collection period and the small ward sample. The time taken by pharmacy staff to

screen, dispense, check and return items is an estimate. It will vary according to staff experience, and does not account for interruptions etc. The accuracy of extrapolating these results to other wards is unclear, given the number of variables between wards (eg. staff levels and training).

Conclusion

Improving the medicines management system when patients are discharged or transferred could have considerable cost savings for the orthopaedic directorate at SGH. Money saved by improving the system could be used to employ another POD technician to focus on patient discharge.

References

- 1 Jones SA. Systems audit: The effectiveness of one stop dispensing. *International Journal of Pharmacy Practice* 2002;10(suppl):R74.
- 2 Eaton L. Hospital patients say they are not fully informed about drugs. *BMJ* 2003;327:180.

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