Improving the patients' discharge experience is an important pharmacy goal

Raliat Onatade and Reena Mehta conclude their series on quality assessment with an article addressing the important issue of the patients' discharge experience. This is well-known to be an area of concern by patients and Raliat and Reena explain how they are trying to improve this and how they measure the quality of this aspect of their service.

Introduction

This is the final article in our series dealing with quality measurement of clinical pharmacy services. The first article gave a general overview of the measurement of quality in health care and detailed how we applied these concepts to measuring the quality of our clinical pharmacy service.[1] Our quality indicators and annual monitoring programme were also introduced. The second article focussed on the first indicator, medication-history taking, and described the results of the serial monitoring undertaken.[2]

This article discusses our second quality indicator, which deals with the process of providing discharge medication. The desired outcome for both patients and staff is that patients should not wait for their medication once they are ready to leave hospital. The quality statement reads as follows: 'Patients will be discharged with all medication already available on the ward with no additional dispensary input.'

Background

Being made to wait in hospital for longer than necessary can often colour a patient's perception of their entire stay, regardless of the quality of clinical care. Over the past few years, the Government has introduced several policies and targets that have led NHS trusts to focus on the need to minimise delays to discharge. These initiatives include targets for accident and emergency waits before admission or discharge, *Payment by Results* (the set tariff for a procedure or treatment of a condition means a potential financial loss if a patient's length of stay is above a set sum) and the 'referral to treat' targets.

Although there may be many reasons for a delay in discharge, waiting for medication is the one most commonly cited by patients in the UK. Approximately 61% of patients who have a delay say it was caused by waiting for medicines.[3] Most hospital pharmacists will make the point that the major reason that medication is not ready on time for patients is because the discharge prescriptions are not written on time. Nevertheless, the timing of the supply of discharge medication often frustrates patients and staff, so pharmacists must, and do, take on some responsibility in helping to improve this aspect of the patient experience.[4]

The use of patient's own drugs (PODs), dispensing for discharge (DFD, one-stop dispensing), prepacks, ward-based labelling or dispensing of discharge medication and self-administration are all schemes that are used to streamline the supply of medication at discharge.[5–9] However, their suitability for a particular ward or speciality-type should be assessed because they are not always appropriate.[10]

At King's College Hospital, the use of PODs and DFD are widespread. We have also introduced the use of pre-packed medication on some wards. Reducing delays by supplying discharge medication direct from the ward is a primary aim of these initiatives. Therefore we agreed that the quality statement would refer to ensuring discharge medicines are already on the ward to supply against a prescription, once written. We considered that this would be a good measure of the quality of our service, and would have the added advantage of allowing us to assess the benefits of the different schemes. The baseline audit was carried out in 2005, with repeated measurements in 2007 and 2008 as part of our quality annual monitoring programme.

Methods

Representative wards from all the specialties were included, except rehabilitation and critical care. A set of wards was selected each week and data were collected from each for five consecutive days (weekends were excluded). Every day a list of the previous day's discharges was retrieved from the electronic patient record system (EPR), and the paper copies of the discharge prescriptions were retrieved from the dispensary. The endorsements (i.e. instructions as to whether an individual drug needed to be dispensed, and if not, if this was because it was a POD/DFD/prepack etc) on the paper copies were used to compile the required information. As far as possible, missing information was found by checking with ward staff, in patients' medical records, with the ward pharmacist, or on the pharmacy labelling system.

Quality assessment

> Because checking and assembling medication on the ward takes more pharmacists' or technicians' time than simply sending a prescription to the dispensary, increases in activity can also affect our capacity to provide the more individualised service.

For consistency, the core wards have remained the same each year, but more wards have been added for internal reasons or to improve validity. In 2006, the practice of asking and documenting if a patient had a supply of medicines at home (Patient's Own Supply at Home, POSH), and therefore did not need any dispensed at discharge was formally introduced.

Results and Discussion

The results of the audits are presented in Table 1. The 2005 results gave us good baseline data (17% of prescriptions fully completed on the ward), but it was impossible to tell by how much this could be improved. A literature search did not help in producing information that we could benchmark against. One published audit showed that using PODs and DFD meant that 80% of discharge items were supplied from the ward.[11] However, information on the types of wards surveyed in this study was not provided. In our study, the proportion of discharges completed on a ward varied considerably from 0% to 58%, depending on the speciality and the schemes in place. In general, the more specialised wards were less likely to have all medication available at discharge. The only factor that seemed to predict a high number of discharge prescriptions not needing additional dispensary involvement was the use of prepacked medication. A target figure for this indicator thus had to be chosen — almost arbitrarily.

Eventually, a consensus was reached on the following standard: 'A minimum of 25% of patients will be given all required medication directly from the ward without additional dispensary input.'

It was agreed that given our baseline, this was challenging but achievable.

The 2007 results were very encouraging. Thirty percent of all discharge prescriptions were completed on the ward, and the dispensary only had to dispense 42% of prescribed discharge items. The positive change from 2005 seemed to demonstrate the benefit of focussing on this as an area for quality improvement.

While the difference in results between 2008 and 2007 is not statistically significant, we cannot demonstrate further improvement. We do know that changes in our service between 2007 and 2008 have influenced our discharge processes. Changes include the introduction of the 'green bag scheme' to assist patients to bring their medication into hospital, pharmacists writing discharge prescriptions and increased pharmacy technician support on the wards. Because checking and assembling medication on the ward takes more individual staff time than straightforward processing in the dispensary, increases in activity can affect our capacity to provide the more individualised service. It is notable, if not surprising, that each time we have audited, we have seen an increase in the number of discharges (from 2005 to 2007, there was a 56% increase in discharges followed up and a further 24% jump in 2008). The final factor for consideration is that, while dispensing for discharge has clear advantages, returning dispensed medicines that are no longer needed can increase staff workload. This has been a topic of discussion within our department over the past 12 months and may have led to a more cautious use of DFD.

The future

When considering how to move forward with this indicator there are three separate issues to look at — the definition of the indicator, the method of data collection,

Table 1. Audit findings			
	2005	**2007**	**2008**
No of wards	18	22	24
No of discharged patients	225	324	401
No of discharges followed up/found *	173 (77%)	270 (83%)	334 (83%)
% completed on the ward	17%	30%	25%
% fully dispensed in dispensary	50%	24%	31%
% partly dispensed in dispensary	33%	46%	44%
Significance of any differences in percentage completed on the ward with preceding year (chi square test)	-	p < 0.005	NS
Analysis by items			
Total number of items	903	1694	2295
% items needing to be dispensed or relabelled in dispensary	67%	42%	45%
% items not needing to be dispensed or relabelled in dispensary (i.e. already on the ward or available to the patient)	33%	58%	55%
Of items already available, the proportion which are PODs	68%	44%	49%
Of items already available, the proportion which are DFDs	18%	30%	24%
Of items already available, the proportion which are POSH	0	22%	21%
Of items already available on the ward, the proportion which are prepacks	14%	4%	6%

*Does not include those where patient died in hospital, transferred to another facility, self-discharged, had no medication prescribed on discharge, or discharge prescription not found.

and ensuring the improved process actually improves the patient experience.

Defining the indicator — At present, the indicator is defined quite narrowly to only include medication needed on discharge, which has to be on the ward and not require dispensing after the prescription has been written. Although this allows us to also measure the workload that has been diverted from the dispensary it does not take into account the benefits seen when

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discharge prescriptions are planned and dispensed in advance and are therefore also ready on the ward before the patient is ready to leave. This is an important consideration because we now have a number of areas where we write and dispense discharge prescriptions the day before discharge.

Methodology — The methodology for this indicator can be improved. The snapshot method (one week in the year) leads to less reliable results for this indicator than for medication history-taking. This is because there is more potential for variability because of external factors, as well as individual pharmacists' and technicians' judgements. Using our dispensary's TTA booking-in system, we now have a process to record how many items on each discharge prescription do not need dispensing. We are in the process of validating this information, and if successful, we will have

a continuous way of collecting most of the data, with minimal effort. The separation into number of PODs/DFDs etc will still need to be counted manually, but this is arguably only essential if detailed analysis is required.

From a patient's perspective the crucial issue is that the medication is ready as soon as possible. The source of the medication supply is less important. We do not know what the impact would be if we were to expand the definition of the indicator to include all medication ready before the patient leaves hospital, however, we believe that this important development should not be excluded when assessing the quality of our service. This was highlighted by colleagues in our department when the 2008 results were presented and we have taken this feedback on board. Therefore we have now decided to include discharge prescriptions written by pharmacists in advance regardless of whether or not items need to be dispensed as well as prescriptions fully completed and assembled on the ward. The use of PODs/DFD/POSH/prepacks will continue to be measured and analysed.

The patients' experience – This indicator does measure process as well as outcome. However, our final issue to consider is how to confirm that patients have a better experience with their discharge medication if we improve this process.

At our trust, all patients are asked to complete a feedback questionnaire just before they leave hospital. One question asks whether patients experienced a delay to their discharge, and if so, what the cause was. Waiting for medication always features in responses to this question. Once the new method of data collection is established it should be possible to check if those areas where more discharge medication is ready in advance see this success reflected in good patient feedback.

In conclusion, this is an important indicator of the quality of our clinical pharmacy service and we will continue to monitor it. However, instead of a single annual audit a more appropriate

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and reliable method of continual or more frequent measurements will be employed. Linking these results to patient feedback will further improve the robustness of this indicator. ✤

Declarations of interest
The authors have no interests to declare.

Raliat Onatade, deputy director of pharmacy, Clinical Services, **Reena Mehta,** senior pharmacist, Critical Care/Clinical services, King's College Hospital NHS Foundation Trust

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