

A checklist approach to support safe discharge – work in progress

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Abstract

Title

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Introduction

Hospitalised patients should have an understanding of their medicines, especially any new additional medicines, at discharge. National annual surveys show that there are gaps in the provision of this information. Though the pharmacy team have a role to play in counselling patients, the ward nurse is also able to contribute to this process. A medication safety reminder guide has been introduced to support this nurse function and the aim of this study was to evaluate the usefulness of the guide.

Method

A cross sectional review of nursing notes for patients requiring discharge medication to ascertain if the necessary discharge documentation - the medication safety reminder guide and a pre-existing discharge transfer plan - had been completed, and a survey of ward nurses' views on the use of the documentation.

Results

Nursing notes for 66 patients were reviewed, of which 46 patients had required discharge medication. There was poor compliance with the discharge transfer plan – only 37/66 could be found in the notes, and in only 10/37 was the plan completed. There was somewhat better compliance with the medication safety reminder guide – though only 21/46 were found in the notes, 17/21 were completed. The small sample of nurses expressed slightly more positive views about the medication safety reminder guide.

Discussion

Compliance with the requirements for both documents was relatively poor, though the medication safety guide performed better than the discharge plan which has now been discontinued. The nurses in this small sample did agree they have a role to play in medication counselling at discharge.

Conclusions

There is still room for improvement in establishing a process that ensures nurses utilise the medication safety reminder guide to its full potential.

Keywords: patient education, nurse, checklist, compliance, medication, safety, guide, counselling.

Introduction

Imagine you are a patient admitted to hospital for an acute medical condition and are taking a few regular medicines for your pre-existing long term condition(s). Treatment for your acute condition requires another two or three new medicines to be added to your regime during your inpatient stay – medicines you will need to take possibly for life. Assuming you want to

have some understanding and knowledge about these new medicines, ideally before you are back at home, which professional (nurse, doctor, or pharmacist) should discuss and communicate this new information to you?¹ Failure to communicate effectively with patients may negatively impact on a patient's ability to understand medication issues, contributing to poor health outcomes.^{2,3}

The National NHS inpatient survey, which compares patient experiences across 149 NHS hospital Trusts in England, identified some deficiencies in the provision of medicines information.⁴ For 2016, 25% of patients were not completely told the purpose of the medicines they were to take at home in a way they could understand; 25% were definitely not told how to take medication clearly; 62% were not completely told about side effects to watch out for when they went home and 29% were not completely given clear written/printed information about medicines. From a pharmacy perspective there appears to be no obvious simple explanations as to why some Trusts score better than others on these medicines-related questions, though possible actions have been described.⁵

O’Leary and colleagues comment that hospital settings present unique challenges to patient-centred care, including the lack of a prior relationship with professionals, complexity and rapid pace of clinical care, and potential for uncertainty related to evolving diagnoses and response to treatment.⁶ Nurses and physicians seldom visit patients together, creating the potential for patients to receive conflicting information. It is of little surprise that patients have limited involvement in their own discharge from hospital.¹

In their literature review, King et al note the small body of literature suggesting that hospitalised patients do not have a

clear understanding of the participation of pharmacists in their care or the availability and types of services pharmacists provide.⁷ For instance, in one study with inpatients admitted to acute medical wards across three NHS Trusts, there was a dichotomy of expectations and opinions from patients about the role of hospital pharmacists and the services provided.⁸ Of the 74 participants, 77% had seen a pharmacist during their current hospital stay. All of those patients who had not expected to see or talk with a pharmacist (41/74) expressed surprise at seeing and/or talking with a pharmacist on the ward rather than seeing them in their traditional dispensing role. However, 25 patients saw the pharmacist as quite an elusive figure, one that went about his/her business in the background.

A Canadian study specifically asking “What service or information would you like a pharmacist to provide in the hospital that would most help you in managing your medications?” found that most respondents to this survey wanted hospital pharmacists to provide a general medication overview, including information about side effects and interactions, during their admission.⁹

The inpatient survey results for the test hospital (Royal Cornwall Hospitals Trust - RCHT) over a number of years are shown in Table 1. Despite a number of initiatives over this time (Table 2),

Information not provided	2013	2014	2015	2016
Discharge: not fully told purpose of medications	24%	28%	24%	25%
Discharge: not fully told side-effects of medications	63%	59%	56%	66%
Discharge: not fully told how to take medication clearly	25%	25%	23%	25%
Discharge: not given completely clear written/printed information about medicines	28%	29%	24%	24%

Table 1: Inpatient survey results for RCHT

Development	Introduction date and comments
List of discharge medication provided to patient	Pre 2013 and ongoing
Transfer of care with provision of medication list to community pharmacy for consenting patients	Mid 2013 and ongoing
Signposting of patients to hospital Medicines Information helpline	Mid 2014 and ongoing
Leaflet for patients explaining what the pharmacy team does on the ward	2014 and no longer in use
Inclusion of side effects information into above list	Late 2015
Hospital pharmacist medication review notes included in discharge letter and transfer of care documentation to community pharmacy	Early 2016
Nurse medication safety reminder guide or checklist	Late 2016

Table 2: Developments at RCHT to enhance opportunities for provision of information on medicines

which the pharmacy team viewed as service improvement, the results have not dramatically improved.

Datix reports describing medication errors at discharge are available. These include patients not being given all their own correct medicines, some patients given medicines belonging to other patients and take home medicines not located at time of discharge because they were stored in the wrong place or not retrieved from the controlled drug cupboard. Some of these errors, also described elsewhere,¹⁰ possibly arise due to the difficulty on a busy nursing shift of trying to discharge a patient when the medicines may be stored in the fridge, the controlled drugs cupboard, on a trolley or in their own or a shared bedside locker. Patients may resort to contacting their surgery or booking an appointment with their GP if they leave the hospital without all their medicines or not fully understanding their medicines at discharge.

Hence, rather than focusing solely on the pharmacy team as the sole provider of information on medicines, a more recently implemented initiative to improve provision of information involves a medication safety reminder guide or checklist (see Figure 1). Nurses are seen as having positive attitudes toward patient medication education,¹¹ are available on the ward at all times (whereas pharmacy is not), and checklists are seen as enhancing patient safety¹² and improving consistency of the information covered when providing counselling.¹³

This checklist, stapled to the bag of discharge medicines at the point of dispensing in the pharmacy, is intended to prompt the nurse at discharge to communicate with the patient on various medication-related matters, as well as ensuring that the patient receives all appropriate discharge medicines. The various prompts under point 3 of the checklist only appear on the checklist if the patient has those medicines at discharge. This was introduced in late 2016 and this paper reports on an evaluation of that checklist by a third year medical student as part of a management special study unit.

Method

Following discussion with pharmacy and nursing representatives, it was agreed that the focus of the work would look at whether the checklist and an existing nursing discharge and transfer plan document had been used as stipulated i.e. both documents should have been completed, signed and stored in the patient notes. Seven medical and surgical wards were chosen at random and 20 sets of notes for each ward were requested from hospital records storage. Some notes were not in storage and hence were not obtained. Those notes

which contained a discharge prescription were examined further. In addition, as part of the audit, the medical student attended the wards to survey nurses; initially it was intended to be five per ward but due to nursing availability and time constraints only 11 nurses were surveyed.

Result

All seven wards were visited during February 2017 and nursing notes for 66 patients were reviewed, of which 46 patients required discharge medication (see Table 3).

The survey (Table 4) showed that, in the main, nurses strongly agree with having a role in counselling about medication at discharge. More nurses strongly agreed with the benefit and purpose of the checklist than did with the discharge transfer plan.

However, nurses rarely told patient about the Medicines Helpline.

Discussion

This small audit has shown that compliance with the requirements for both documents is poor in that only 56% of 66 discharge transfer plans and 46% of 46 checklists could be retrieved from the nursing notes. Where a discharge plan was found, it was completed and signed in less than a third of cases, whereas the medication checklist was completed in 81% and signed in 43% of cases. The checklist was generally well received by the small number of nurses surveyed and appears to be utilised as intended.

This small audit and survey looked only at process measures and has not actually investigated the benefits to patients. At a national level, scores for the questions about purpose of medicines and how to take medicines have remained fairly constant over the past years. From 2006 to 2016, there was an increase of 5% (66% to 71%) in the proportion of respondents saying they received completely clear written or printed information about the medicines they were given to take home. There has also been a slight increase in the proportion of respondents being completely told about the side effects of medication to look out for at home (36% in 2006 to 38% in 2016). However, there were still 43% of respondents who reported that they were not told about side effects.

Others have shown low medication counselling rates at discharge¹⁴ and that pharmacists are the least likely healthcare professional to provide routine patient counselling, despite

Use of discharge transfer plan (n = 66)	Use of checklist (n = 46)
Plan in the notes 37 (56.1%)	Checklist in the notes 21 (45.7%)
Plan was completed 10/37 (27.0%)	Check list was completed 17/21 (81.0%)
Plan was signed 10/37 (27.0%)	Checklist was signed 9/21 (42.9%)

Table 3: Audit results for the nursing discharge transfer plan and the medication safety reminder guide

Discharge from Test Ward for Test Patient Medication Safety Reminder Guide

Please ensure the following checks are undertaken when the patient is about to leave:

Tick

1. A completed discharge letter is printed out from Maxims e-discharge system at the point of discharge and ready to leave screen completed

2. Patient's identity confirmed by checking ID bracelet has Hospital Number 123456
- Confirm address with patient/carer is the same as that on the prescription

3. Patient has all items on their discharge letter including those needing to come from ward stock or patient's own supply and the following items which will not be in the dispensed bag:

Controlled drugs - add these to the bag and record in the CD register

Warfarin - issue anti-coagulant therapy record book or update patient's own book with daily dosage

Insulin - issue insulin passport

Lithium - issue lithium therapy record book

Bulk feeds - give feeds and giving sets to patient

4. Each item in the bag has been checked against the discharge letter (*not the TTA list*) to ensure that no last minute changes have been made):

- Name, form and strength of the drug
- Purpose of the drug (if appropriate)
- The directions (how to take/use the drug)
- Potential side effects of the drugs (refer to warning labels on medicines boxes, patient information leaflets and medicines reminder sheet in TTA bag)

- Remind patient that they have drugs that must be stored in the fridge

5. Inform patient that their GP will receive a copy of their discharge letter electronically

6. Give the patient the opportunity to ask any questions about their medication and point out the Medicines Helpline number on the patient name label on the TTA bag for further enquiries.

7. Other Dispensary Instructions:



Nurse Name:

Signature:

Date:

Once completed please file in patient's notes

Figure 1: Example of the nurse checklist

perhaps being the most appropriately trained to do so^{15,16} and, albeit in a small study, demonstrating the use of effective communication strategies.¹⁷ Traditionally in our hospital the majority of patients would be counselled at discharge by a nurse. Though the pharmacy team may counsel some patients on medication during the hospital stay, it is currently not routinely undertaken by the pharmacy team at the discharge stage. In addition, a significant proportion of discharges happen after 5 pm when the pharmacy team is not available for this role.

In tandem with the introduction of this checklist, a review of pharmacy policies and training regarding side-effect counselling of patients has been undertaken. Pharmacists are now expected to add a 'counselling note' to the electronic prescribing and medicines administration system when they undertake counselling to allow measurement of this task. Other actions include continuing to educate the nurses about the need to talk through the medicines with the patient at the point of discharge using the patient's medication list that describes

common drug side-effects, and continuing to educate prescribers of the need to counsel patients regarding any new medicine they initiate as part of the joint decision making in the patient's care. This approach of optimising the inter-professional communication and collaboration that occurs during the discharge process can help improve the quality of care transition.¹⁸ The Trust discharge and transfer plan has now been recognised as not fulfilling its purpose and has been superseded. A further audit of the use of medication safety reminder guide is planned.

Conclusion

It is clear that involving nurses in providing medication-related information at discharge remains work in progress. Ensuring that medication-related safety incidents are minimised and patient's knowledge and understanding of their medication are optimised during a patient's journey through the healthcare

Response	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I am aware of patients from the hospital being discharged with errors in medications	6	3	1		1
I always use the Medications Safety Reminder Guide when discharging patients	9		1		1
I think that the Medications Safety Reminder Guide is really helpful	7	2	1		1
The Medications Safety Reminder Guide is helpful to remind me where items on the TTA are, when they are not in the TTA bag and need to be included	8	1	1		1
I always use the discharge or transfer plan when discharging patients	5	3			3
I find the discharge or transfer plan helpful when discharging patients	5	1	1		4
I always check TTAs against their discharge letter for accuracy	10	1			
I always counsel a patient on discharge about their medication	10	1			
I have the time to counsel patients about their medication	9	1		1	
I feel confident to counsel patients about their medication	7	3	1		
I use the Medication List on the TTA bag to help counsel a patient on common side affects	7		1	1	2
I always tell a patient about the Medicines Helpline	1		1		9

Table 4: Results of survey of nursing staff (n = 11)

system is a complex challenge and involves many health care professionals. At handover, such as at discharge, the process should be such that everyone knows what to expect in terms of responsibilities, coordination of tasks within the team, and content of discharge information.¹⁹ Thinking again about ourselves as the patient (and trying to forget how we see things through a pharmacist's eyes) wouldn't we simply want a competent and informed member of the hospital staff, no matter what uniform or title they wear, to use a structured format to tell us all we want and need to know about our medicines?

Declaration of interests

The authors have nothing to declare.

References

- Bullock S, Morecroft CW, Mullen R, Ewing AB. Hospital patient discharge process: an evaluation. *Eur J Hosp Pharm* 2017;24:278-282. Available from: <http://ejhp.bmj.com/content/24/5/278>
- Wei L, Yang X, Li J, Liu L, Luo H, Zheng Z et al. Effect of pharmaceutical care on medication adherence and hospital admission in patients with chronic obstructive pulmonary disease (COPD): a randomized controlled study. *J Thorac Dis* 2014;6:656-662. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4073386/pdf/jtd-06-06-656.pdf>
- Warden BA, Freels JP, Furuno JP, Mackay J. Pharmacy-managed program for providing education and discharge instructions for patients with heart failure. *Am J Health Syst Pharm* 2014;71:134-139. Available from: <http://www.ajhp.org/content/71/2/134.long?sso-checked=true>
- Care Quality Commission. 2016 Adult Inpatient Survey. Statistical release. 2017. Newcastle upon Tyne. Available at <http://www.cqc.org.uk/publications/surveys/adult-inpatient-survey-2016>
- Specialist Pharmacy Service. The Inpatient Survey – things we forget to remember. May 2017. Available at: https://www.sps.nhs.uk/wp-content/uploads/2017/05/SPS_Bulletin_Inpatient_Survey_May_2017_TR.pdf
- O'Leary KJ, Killarney A, Hansen LO, Jones S, Malladi M, Marks K et al. Effect of patient-centred bedside rounds on hospitalised patients' decision control, activation and satisfaction with care. *BMJ Qual Saf* 2016;25:921-928. Available from: <http://qualitysafety.bmj.com/content/25/12/921.long>
- King PK, Martin SJ, Betka EM. Patient awareness and expectations of pharmacist services during hospital stay. *J Pharm Pract* 2017;30:506-515. Available from: http://journals.sagepub.com/doi/abs/10.1177/0897190016665541?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dpubmed
- Morecroft CW, Thornton D, Caldwell NA. Inpatients' expectations and experiences of hospital pharmacy services: qualitative study. *Health Expect*. 2015;18:1009-17. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5060818/pdf/HEX-18-1009.pdf>
- Gould O, Buckley P, Doucette D. What patients want: preferences regarding hospital pharmacy services. *Can J Hosp Pharm* 2013;66:177-83. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3694939/pdf/cjhp-66-177.pdf>
- Byrne C, Sierra H, Tolhurst R. Does a checklist reduce the number of errors made in nurse-assembled discharge prescriptions? *Br J Nurs* 2017; 26: 464-467. Available from: http://www.magonlinelibrary.com/doi/abs/10.12968/bjon.2017.26.8.464?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed
- Bowen JF, Rotz ME, Patterson BJ, Sen S. Nurses' attitudes and behaviors on patient medication education. *Pharm Pract* 2017;15:930. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5499351/pdf/pharmpract-15-930.pdf>
- Gawande A. *The Checklist Manifesto: how to get things right*. Metropolitan Books of Henry Holt and Co. 2011.
- Elson R, Cook H, Blenkinsopp A. Patients' knowledge of new medicines after discharge from hospital: What are the effects of hospital-based discharge counseling and community-based medicines use reviews (MURs)? *Res Social Adm Pharm*. 2017;13:628-633. Available from [http://www.rsap.org/article/S1551-7411\(16\)30022-5/fulltext](http://www.rsap.org/article/S1551-7411(16)30022-5/fulltext)
- Odeha B, Khayyama U, Al-Haddada TAF, Changeb J, Kayyalia R. Investigation of the level of shared decision making and patients' counselling among patients discharged from Croydon University Hospital. *Intl J Pharm Pract* 2016;24 (Suppl. 1):38-39. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/ijpp.12259/epdf>
- Wright S, Morecroft CW, Mullen R, Ewing AB. UK hospital patient discharge: the patient perspective. *Eur J Hosp Pharm* 2017;4:338-342. Available from: <http://ejhp.bmj.com/content/24/6/338>
- Wilcock M, Lawrence J. Patients' experience of the hospital pharmacy team – still further work to be done! *Journal of Pharmacy Management* 2015;31(1):15-20. Available from: https://www.pharman.co.uk/uploads/mediacentre/Pharmacy_Man_January_2015.pdf
- Chevalier BAM, Watson BM, Barras MA, Cottrell WN. Investigating strategies used by hospital pharmacists to effectively communicate with patients during medication counselling. *Health Expect* 2017;20:1121-1132. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5600236/pdf/HEX-20-1121.pdf>
- Pinelli V, Stuckey HL, Gonzalo JD. Exploring challenges in the patient's discharge process from the internal medicine service: A qualitative study of patients' and providers' perceptions. *J Interprof Care* 2017;31:566-574. Available from: <http://www.tandfonline.com/doi/abs/10.1080/13561820.2017.1322562?journalCode=ijic20>
- Merten H, van Galen LS, Wagner C. Safe handover. *BMJ* 2017;359:j4328 doi: 10.1136/bmj.j4328. Available from: <http://www.bmj.com/content/359/bmj.j4328>