Optimising clinical pharmacy services using needs assessed pharmacy-independent discharge referrals

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Introduction

Due to the high patient turnover on surgical wards, pharmacists often spend a lot of time preparing discharges resulting in reduced time to allocate to other clinical activities. If simple scripts such as those for antibiotics or analgesia are able to be dispensed and counselled by pharmacists in the community, ward pharmacists will then be able to see the high needs patients first, waiting times will be reduced and savings will be made on time and resources.

In a 2014 retrospective audit Eastern Health showed that prescriptions given to patients for dispensing in the community resulted in no detectable clinical errors.[1] Assessing the needs criteria of the patient using a tool (not yet validated) prior to referral to the pharmacist will allow the discharge process for non complex discharges to become more streamlined.

Aim

To quantify the time saved by pharmacists in a large metropolitan health network, when patients are referred by nurses for discharge medication reconciliation (DMR) using a needs criteria and to assess the referral compliance rate and patient satisfaction.

Method

- a set criteria was designed by the project team to categorise patients into high (HN) or low needs (LN) (*Figure 1*)
- patient is identified for discharge on four wards in surgical, obstetrics and orthopaedic units
- prescription is written by doctor
- bedside nurse receives prescription & fills out referral form
- if patient is **NO** to all criteria then script can be taken to their local community pharmacy
- if patient is **YES** to ANY criteria then script is referred on to ward pharmacist for checking

A snapshot of patients captured over a two week period from 30/5/16 to 12/6/16 was analysed using data collected from the completed criteria forms and data obtained from decision support. Data from decision support provided discharge destinations and patients discharged to sub-acute or acute units were excluded.

Data from a previous audit[1] was used to calculate the amount of ward pharmacist time saved per prescription that was referred to a local community pharmacy. The previous audit determined an average time of 12.68 minutes taken to prepare a discharge which includes medication reconciliation and counselling, but excludes dispensing time.

A random selection of patients who met LN criteria and were referred to a local community pharmacy were contacted post discharge and asked to participate in a telephone survey in order to assess patient experience.

See Figure 2 for methodology flowchart

SURVEY QUESTIONS

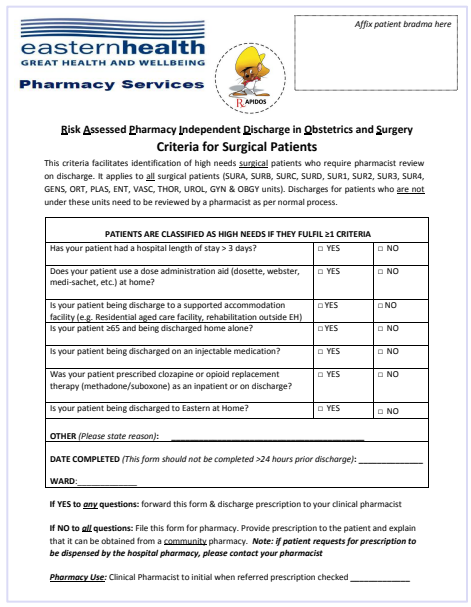
1. Was the process of getting your prescription filled outside of hospital explained to you clearly? (Y/N)
2. Were you able to get your prescription filled before you needed the medicines? (Y/N)
3. Did you do this yourself? (Y/N)
   If no, ask whether it was easy to get assistance from someone (Y/N)
4. Did you go to a pharmacy you attend regularly? (at least once a month) (Y/N)
   If answer is no, ask why
5. Reflecting on your experience, would you have preferred to get the medicines from the hospital pharmacy? (Y/N)

ONLY IF YES TO Q5, ask:

Usually it would take 60mins to prepare your medicines here, would you still prefer to get you medicines from the hospital pharmacy?

Figure 3. Survey questions

Figure 1. Criteria for risk assessment



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Risk Assessed Pharmacy Independent Discharge in Obstetrics and Surgery Criteria for Surgical Patients

This criteria facilitates identification of high needs surgical patients who require pharmacist review on discharge. It applies to all surgical patients (SURA, SURB, SURC, SURD, SUR1, SUR2, SUR3, SUR4, GENS, ORT, PLAS, ENT, VASC, THOR, UROL, GYN & OBGY units). Discharges for patients who are not under these units need to be reviewed by a pharmacist as per normal process.

PATIENTS ARE CLASSIFIED AS HIGH NEEDS IF THEY FULFIL ≥1 CRITERIA		
Has your patient had a hospital length of stay > 3 days?	□ YES	□ NO
Does your patient use a dose administration aid (dosette, webster, medi-sachet, etc.) at home?	□ YES	□ NO
Is your patient being discharge to a supported accommodation facility (e.g. Residential aged care facility, rehabilitation outside EH)	□ YES	□ NO
Is your patient ≥65 and being discharged home alone?	□ YES	□ NO
Is your patient being discharged on an injectable medication?	□ YES	□ NO
Was your patient prescribed clozapine or opioid replacement therapy (methadone/suboxone) as an inpatient or on discharge?	□ YES	□ NO
Is your patient being discharged to Eastern at Home?	□ YES	□ NO

OTHER *(Please state reason)*: _____

DATE COMPLETED *(This form should not be completed >24 hours prior discharge)*: _____

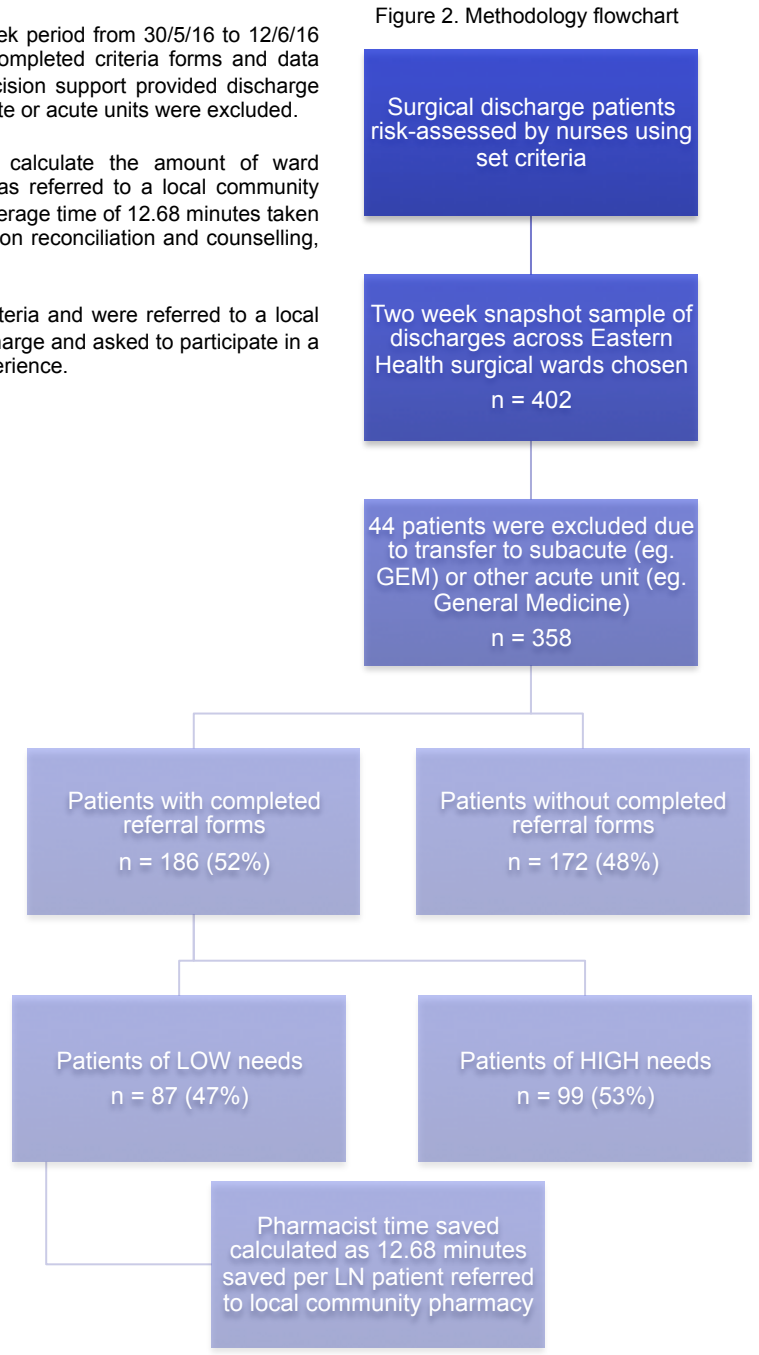
WARD: _____

If YES to *any* questions: forward this form & discharge prescription to your clinical pharmacist

If NO to *all* questions: File this form for pharmacy. Provide prescription to the patient and explain that it can be obtained from a community pharmacy. ***Note: if patient requests for prescription to be dispensed by the hospital pharmacy, please contact your pharmacist***

Pharmacy Use: Clinical Pharmacist to initial when referred prescription checked _____

Figure 2. Methodology flowchart



Results

Of the 358 eligible discharges, 186 forms were received across Eastern Health during the time period. The average percentage of low-needs (LN) patients was 51% *(Table 1)* and the clinical time saved was an average of 4.6 hours per ward (12.68 minutes per direct referral). *(Figure 4)* 172 eligible discharges did not have a completed form, showing a referral rate of 52%. *(Figure 5)*

40 randomly selected patients eligible for the telephone survey were successfully contacted and questioned on their experience. 93% reported they were able to get their prescription filled before the medication was needed although 26% would have preferred having it dispensed in hospital. 78% of patients went to a pharmacy they usually attend regularly while 8% could not access their usual pharmacy due to it being closed. Convenience was identified by 57% of patients as the most important factor considered in getting their prescription filled.

Figure 5. Discharge referral rates

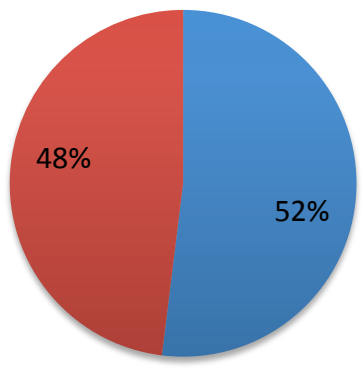
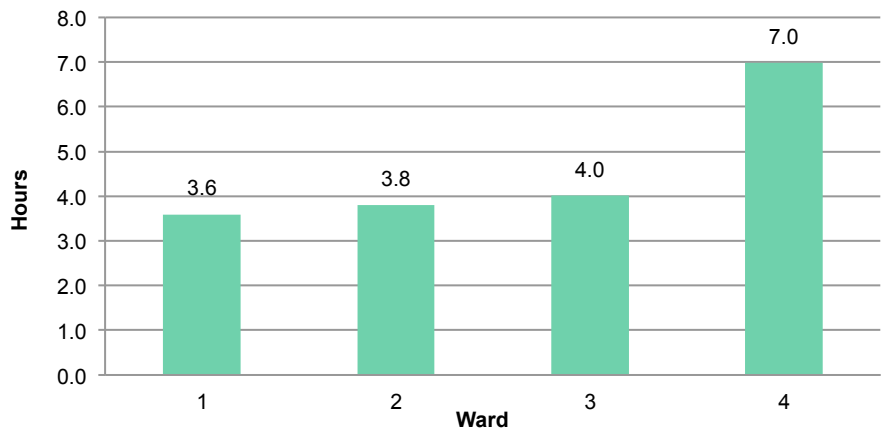


Figure 4. Pharmacist time saved per week



Ward	Number of forms received	Percentage LN
1	52	33%
2	59	32%
3	36	92%
4	39	46%

Table 1. Percentage of LN patients of forms received

Discussion/Limitations

- The audit showed approximately 50% of discharges are LN thus the time saved can potentially be allocated to clinical activities that can better contribute to improving patient outcomes.
- The nursing staff referral rate of 52% was quite low. This could be due to poor understanding of the protocol and lack of motivation to complete a form for patients who are clearly HN or LN. Another contributing factor could be that due to the manual nature of data collection, completed forms may have been lost or misplaced. The low referral rate shows potential for increased time savings if referral forms were completed for 100% of patients.
- A main shortfalls is that it was difficult to determine how long it takes for a pharmacist to organize a discharge. There are multiple variable factors that influence the time taken such as the number of discharges, time of day, number of admissions, availability of doctors, workload (other ward activities), dispensary workload, number of prescription items and also the individual pharmacist.[2] To minimize the high variability the time measured was narrowed to time taken to perform discharge medication reconciliation along with time taken to counsel, but excluded dispensing time.
- The criteria and processes need to be further assessed if the project were to be implemented on non-surgical/orthopaedic wards as it is not appropriate to extrapolate to other units where the patient population is more complex and pharmacist involvement on discharge is important for the continuum of care.[3][4]

Implications for practice

- The average time saved of 4.6 hr/ward with a referral rate of 52% showed that increasing nursing compliance rates may provide greater time-savings and opportunities to direct pharmacy services to activities of greatest impact.
- The benefits of referral on discharge using set criteria not only increases clinical time available for the ward pharmacists to re-direct to activities of higher need, but it also contributes to positive patient experiences, better patient flow and improved access to the hospital.
- The results of this project show that referral of prescriptions for non complex discharge patients are suitable for taking to community pharmacies with no harm to the patient, allowing resources to be reallocated to tasks of greater need.
- The project outcomes provides evidence to support criteria led discharges and acts as a catalyst for change to current practices in order to improve and add value to clinical services that pharmacists provide.

References

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4. SHPA Committee of Specialty Practice in Clinical Pharmacy (2013), SHPA Standards of Practice for Clinical Pharmacy (Supplement). Journal of Pharmacy Practice and Research, 43

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