Comparison of two methods of post discharge pharmacist follow up to identify and resolve medication related problems.

What we asked:

Once you get home should we **ring and review** or **visit and chat directly** to you?

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What we know:

- Discharge from hospital to home increases the risk of Medication Related Problems (MRPs). Up to 1 in 5 patients experience an adverse event during this transition. Medication adverse events account for 66% of these.[1]
- It is estimated that approximately 1/3 of these adverse events are preventable.[2]
- The risk of medication misadventure is known to be high in the immediate post-discharge period (10 days post discharge).[3]
- Pharmacist led reconciliation programs for patients transitioning from hospital to primary care have employed a variety of methods to improve clinical outcome including telephone follow up, home visits and patient counselling.[4]

What we did:

Project Site: Toowoomba Hospital (320 beds), Darling Downs Hospital and Health Service (DDHHS). Ethics approval was granted for this study.

- A referral form was designed to identify patients at high risk of MRPs.
- Participants were recruited from Toowoomba and the surrounding district (50km radius).
- After discharge, participants were randomly allocated to receive either face to face follow up at home, or phone call follow up by a pharmacist.
- Medication reviews were performed within 10 days of discharge to screen for MRPs and assess understanding of medication and adherence.
- The patient, their GP or community pharmacy were contacted after the review if required.

What we found:

- 42 participants recruited, mostly referred by ward pharmacists.
- All participants were reviewed within 10 days of discharge, the face to face model averaged 5.8 days, the telephone method was 5.7 days.
- The most common referral reasons were:
  - » Significant polypharmacy
  - » Use of a dose administration aid (DAA)
  - » Suspected non-adherence.
- A mean of 4.2 MRPs identified in the face to face group compared with 2.4 for the telephone review group (statistically significant p=0.02).
- Most frequent patient level discrepancies:
  - » Adherence - intentional and unintentional
  - » Lack of understanding of medication
  - » Inability to locate DMR at home.
- Most frequent system level discrepancies:
  - » Lack of understanding of medication
  - » Errors on Discharge Medication Record (DMR).
- The average time taken for face to face reviews was one hour and thirty minutes for phone calls.
- It was often difficult to conduct a review over the phone because of poor health literacy, hearing issues and more difficulty engaging patients to discuss their medication.
- The face-to-face model enabled faster, more effective rapport building with the patient and more meaningful discussion regarding medication management.
- Twice as many participants preferred the face to face delivery method.
- No impact on readmission rate was able to be demonstrated because of the small sample size and time limitations.
- Multiple interventions from a multidisciplinary team may be necessary to resolve issues (particularly around adherence) and reduce readmission rates.

Table 1: Characteristics of participants

Characteristics	Face-to-face participants (n=23)	Phone call participants (n=19)
Male	10 (43.5%)	8 (42.1%)
Female	13 (56.5%)	11 (57.9%)
Mean age (years)	73.0 ± 13.9 (range:47-97)	70.8 ± 14.3 (range 44-96)
Mean length of stay (LOS)	6.3 days	7.9 days*
Mean number medications at discharge	13.3	12.6

*(*adjusted for 1 LOS of 418 days)*

What surprised us:

- Only 53% of participants were able to locate their DMR - 92% had a DMR on the Enterprise Liaison medication System (eLMs).
- Only 49% of participants had an electronic Discharge Summary (eDS) on discharge.
- Financial barriers to filling prescriptions were often not considered or recognised by hospital team, but were identified in this study.
- Many patients reported feeling overwhelmed by the amount of information provided on discharge.
- 84% of participants felt they managed their medication well but many were referred because of poor medication management.
- 83% of participants felt their medication management improved after a pharmacist medication review.
- Most participants did not want to continue phone conversations for more than 30 minutes.
- For the phone call group it took a lot of time to determine what the patient was actually taking.
- DAAs complicate the discharge process and increase the risk of MRPs – patients may not be aware of medication changes, sometimes use old packs to save money or were unable to collect a new pack.
- Errors on DMRs - even when a Best Possible Medication History is taken and a reconciliation process is followed, what patients have in their homes is often not what we think they have!

What we know now:

We have:

- Reviewed current DMR – standardised format to improve its ease of interpretation (with consumer input) and add an explanatory cover sheet.
- Introduced an annual DMR accuracy audit.

We need to:

- Find a pathway for immediate patient referral for face to face medication review post discharge.
- For high risk patients –send the DMR directly to the patient's GP.
- Provide effective education to patients in a simplified and repetitive way about the importance of their DMR and how to use it so they do not feel overwhelmed.
- Present information around the timeliness of eDS completion to the hospital executive for comment.

References

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