Objectives

- To implement a pre-discharge medication reconciliation process
- To assess and compare this model with a post-discharge medication reconciliation

Conclusion

- Pre discharge MR is effective in detecting and correcting unintended medication discrepancies
- The main challenge is to anticipate patient discharge

Purpose

- In 2015 we implemented a discharge medication reconciliation (MR) in the internal medicine ward for patients returning home
- As discharge orders were written just before patient’s discharge, MR was accomplished in the first 24 hours after they left the hospital
- The correction rate of the unintended medication discrepancies (UMD) was not satisfactory (40%) because of this delay
- In 2016, in collaboration with medical team, we decided to improve the process with a pre-discharge MR implementation

Methods

Implementation of the pre-discharge MR process

- Discharge summaries were written the day before discharge rather than the day of discharge
- Pre-discharge MR was conducted based on the:
  - Best possible medication history
  - Last active inhospital medication list
  - Outgoing medication list on the discharge summary

Assessment of the pre-discharge MR model

- Prevalence of unintentional medication discrepancies (UMD):
  - Drug omission
  - Error in drug dosage
  - Error in the frequency of administration
  - Overprescription
  - Drug duplication

Comparison of the pre and post discharge MR processes

- UMD correction rate was assessed on the discharge summaries
- We compared:
  - Residual UMD rate on discharge prescriptions after the pre-discharge MR
  - Residual UMD rate on discharge prescriptions after the post-discharge MR (measured in a prior study)

Results

Figure 1: post and pre discharge Medication reconciliation processes

Patients characteristics

- During 3 months (January to March)
- 52 patients included (62% of women)
- Medium age: 67.8 ± 14 y.o.
- 436 medication on the discharge summaries (8.4 ± 4.0 medications per patient)

Post and Pre discharge MR models comparison

<table>
<thead>
<tr>
<th></th>
<th>Pre-discharge MR</th>
<th>Post-discharge MR</th>
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<tbody>
<tr>
<td>UMD correction rate</td>
<td>93% (28/30)</td>
<td>40% (12/30)</td>
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<tr>
<td>Residual UMD rate on discharge prescription</td>
<td>0.5% (2/436)</td>
<td>2.25% (18/800)</td>
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Discussion

- Partnership with physician is essential during the MR discharge process and required the reengineering of the medication use process
- Anticipating patients discharge can be challenging in case of numerous or unplanned patients discharge
- Thus we suggest combining pre and post discharge to be more effective, for instance:
  - Pre discharge MR could be done when patients are at high risk of UMD
  - Post discharge MR could be done when patient are at lower risk of UMD