Management Case Study: Implementation of a pharmacist-driven medication reconciliation and counseling program to improve HCAHPS performance

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Learning Objectives
- Describe the benefits of implementing discharge counseling versus first dose counseling.
- Identify important process and outcome measures for a pharmacist counseling program.
- Describe a method of identifying target populations for first-dose counseling.

Self-Assessment Questions
- True/False: First-dose education seemed to have a larger impact on HCAHPS performance than discharge education.
- Which of the following process measures was used to assess the program?
  - Discharge counseling capture rate
  - Patient understanding (HCAHPS)
  - Readmission Rates
  - Mortality
- First-dose counseling may augment discharge counseling when targeted to patients having which of the following:
  - New chronic medications started
  - Pain medications present
  - Discontinued home medications

Cleveland Clinic
- 1,440 bed academic medical center
- Case-mix index > 2.3
- > 55,000 annual admissions
- Average daily census ~1,000
- Pharmacy services
  - Unit-based and specialist
  - 0700-1530 weekdays
  - Consolidate coverage evenings and weekends

Background – Neurology HCAHPS Communication on Medications

General Neurology - Pharmacy
- 1 unit-based pharmacist 0700-1530 weekdays
- Evening and weekend consolidation
- Total coverage ~60 patients daily
- Order verification, vancomycin dosing, targeted medication counseling, profile reviews, training/education
Initial Questions to Address

• What service to focus on?
  • First-dose education
  • Discharge education
• Capacity?
  • Appropriate scope
  • Data
• How does this fit in with upcoming initiatives?
  • Leverage as pilot for broader initiative
  • Structure to be easily adapted

First-Dose vs. Discharge

• Benefits
  • Aligns with intent of HCAHPS questions (timing)
  • Multiple counseling opportunities
• Limitations
  • Timeliness
  • Workload (feasible?)
  • No existing means of identifying

Discharge

• Benefits
  • More lead time from notice
  • Some happening already with bedside delivery of discharge medications
• Limitations
  • Existing ways to identify

Decision: Do both, but prioritize

How to prioritize?

Discharged

Counseled

Return surveys

Scope of the Initiative

• Prioritize home-going patients with new medications prescribed
  • Less opportunity for additional counseling in home setting
  • 8-10 discharges daily

Scope of the Initiative: First-Dose Counseling

• Could not automate identification of new medications in electronic health record
  • Some chart review would be required
  • Need to restrict volume to remain feasible
  • Push notifications to minimize manual review

Visual Management with Electronic Medical Record

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**Scope of the Initiative: First-Dose Counseling**

Discharge Prescriptions

- Psychotherapeutic (6.8%)
- CNS Drugs (7.3%)

Automated alert fires

**Education Pilot - Pharmacist Role**

- **Medication Reconciliation**: Resolve discrepancies in discharge list
- **Discharge Education**: Purpose / Side effects of new medications
- **First-Dose Education**: Top priority for workflow efficiency

**Process Measures**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total to Date</th>
<th>Daily Average</th>
<th>Average Capture Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge Medication Reconciliation</td>
<td>768</td>
<td>7-8</td>
<td>60% (total) &gt;90% (weekdays)</td>
</tr>
<tr>
<td>Discharge Counseling</td>
<td>447</td>
<td>4-6</td>
<td>35% (total) 66% (weekdays)</td>
</tr>
<tr>
<td>First-Dose Education</td>
<td>81</td>
<td>1-2</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Impact through August**

- Discharge medication reconciliation
- Interventions on 222 patients (29%)
- Examples
  - IV diazepam prescribed
  - Antibiotics changed from piperacillin/tazobactam to cefepime – piperacillin/tazobactam continued
  - Metoprolol dose increased during inpatient stay, inadvertently discontinued
  - Aspirin resumed at 325mg three times daily instead of daily

**Patient Counseling**

- Overall, 66% capture rate of target patients
- Ranges from 54% to 83%
- 15% of all patient counseling was first-dose counseling
- ~ 10-15 minutes per counseling
Stakeholder review

• What changed?
  • No pharmacy student presence
  • Less medication reconciliation lead time
  • Capture rate varied widely by day of week

Stakeholder review

• What changed?
  • No pharmacy student presence
  • Less medication reconciliation lead time
  • Capture rate varied widely by day of week
  • Implement?
    • Re-communicate importance of early medication reconciliation
    • Student involvement
    • Exploring call-back program Mon-Tues

HCAHPS Communication on Medication

Reached 90th percentile for 1st time

HCAHPS Communication on Medication

Reached 90th percentile for 1st time

Discharge Counseling

Discharges

0 2 4 6 8 10 12 14
Sun Mon Tue Wed Thu Fri Sat
Discharge Capture

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Self-Assessment Question 1
• First-dose counseling may augment discharge counseling when targeted to patients having which of the following:
  A. New chronic medications started
  B. Pain medications present
  C. Discontinued home medications

Answer: A

Self-Assessment Question 2
• Which of the following process measures was used to assess the program?
  A. Discharge counseling capture rate
  B. Patient understanding (HCAHPS)
  C. Readmission Rates
  D. Mortality

Answer: A

Self-Assessment Question 3
• True/False: First-dose education seemed to have a larger impact on HCAHPS performance than discharge education

Answer: FALSE

Key Takeaways
• Improvements in HCAHPS scores can be realized by incremental increases in patient education efforts by pharmacists
• Discharge counseling may offer a procedurally simpler means of improving HCAHPS scores than first-dose teaching
  • Follow the metrics (both process and outcome)
• When tackling volume in excess of capacity, pair stakeholder input with data to prioritize interventions