Project Discharge: Implementing an Effective, Patient-Centered Discharge Process in Obstetrical Triage in an Urban Academic Medical Center

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Project Discharge: Implementing an Effective, Patient-Centered Discharge Process in UNM OB Triage
Introduction

Focused discharge process: decreases hospital use within 30 days, improves patient recall (Samuels-Kalow, Stack, & Porter, 2012)

$4.4 billion: saved annually if patients use outpatient settings (Agency for Healthcare Research and Quality, 2018a)

Healthier pregnancy: women who receive education (Al-Ateeq & Al-Rusaiess, 2015)
Local Problem

How we fell short in OB Triage:

- **Team:** 70% said we did not operate at a high level of efficiency
- **Patients:**
  - 89%: no written discharge instructions or education handouts
  - 65%: no follow up appointment noted
  - 28%: not completely certain of what medication they were prescribed and how to take it
  - 34%: not certain how the provider would inform them of lab results or tests
  - 100%: medication reconciliation not done

Factors contributing to our problem:

- Lack of standardized discharge process across services
- Lack of access in EHR to education materials
- Poor communication between nursing and providers
- Patient knowledge deficit
Available Knowledge

Information structuring at discharge improves patient recall (Engel, Buckley, McCarthy, Forth, & Adams, 2010; Ackermann et al., 2017)

Integrated patient-centered prenatal care includes education (de Masi et al., 2017)

Team huddles: positively impact patient safety (Rodriguez, Meredith, Hamilton, Yano, & Rubenstein, 2015; Sherwood & Zomorodi, 2014)
Specific Aim

The aim of this quality improvement project was to discharge 65% of patients from OB Triage over 8 weeks using an effective, patient-centered discharge process.
Methods

Context

• **UNM OB Triage**: Serves 8,000 patients annually, 5 beds, nursing staff & 3 services. 150 people involved

• **Patient population**: Minority majority state: Hispanic, non-Hispanic, indigenous; 44.8% Medicaid

• **QI Project** with 4 rapid plan-do-study-act (PDSA) cycles over 8 weeks

• Each cycle had **tests of change** focused on:
  • Team engagement
  • Patient engagement
  • Discharge checklist
  • Discharge summary
### Interventions

<table>
<thead>
<tr>
<th>Test of Change</th>
<th>PDSA Cycle 1</th>
<th>PDSA Cycle 2</th>
<th>PDSA Cycle 3</th>
<th>PDSA Cycle 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Team Engagement</strong></td>
<td>Held multiple team presentations and planning sessions in weeks prior to PDSA 1, created bulletin boards</td>
<td>Added video instructions on discharge process</td>
<td>Displayed “super users” poster in OB Triage</td>
<td>Made “Ask me about your Discharge” buttons for staff</td>
</tr>
<tr>
<td><strong>Patient Engagement</strong></td>
<td>Implemented “What is OB Triage?” patient decision aid</td>
<td>Added welcoming statement to decision aid</td>
<td>Added video instructions for decision aid</td>
<td>Introduced decision aid to patients in clinic</td>
</tr>
<tr>
<td><strong>Discharge checklist</strong></td>
<td>Implemented discharge checklist</td>
<td><strong>Shortened checklist and reduced paperwork to two forms</strong></td>
<td>Taped reminder to clipboards to print medication list</td>
<td>Posted mini-checklists on all computers</td>
</tr>
<tr>
<td><strong>Discharge summary</strong></td>
<td>Implemented discharge summary</td>
<td><strong>Added whiteboard reminder to give patient copy of summary</strong></td>
<td>Posted written patient prompt to request discharge summary</td>
<td>Piloted “Visit Instructions” tip sheet for EHR</td>
</tr>
</tbody>
</table>
Study of the Interventions

- Checklists, summaries, surveys
- Quantitative & qualitative data
- Revisions each cycle based on analysis
- Aggregate data in run charts
# Measures

<table>
<thead>
<tr>
<th>Test of Change/Core Intervention</th>
<th>Measure</th>
<th>Operational Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM:</td>
<td></td>
<td><strong>Within 60 days, 65% of patients will be discharged from OB Triage using an effective, patient centered discharge process.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td># discharge summaries and checklists 100% completed/# patients discharged from OB Triage</td>
</tr>
<tr>
<td>Teamwork</td>
<td>Process</td>
<td>Team encounters</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Team self-confidence</td>
</tr>
<tr>
<td>Patient engagement: Decision Aid “What is OB Triage?”</td>
<td>Process</td>
<td>Patients completing Decision Aid</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Patient confidence in ability to decide when to access OB Triage</td>
</tr>
<tr>
<td>Discharge checklist</td>
<td>Process</td>
<td>Checklists initiated</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Completed discharge checklists</td>
</tr>
<tr>
<td>Discharge summary</td>
<td>Process</td>
<td>Completed discharge summaries</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Patient confidence in knowledge about how to care for herself after discharge</td>
</tr>
<tr>
<td>Balancing Measure</td>
<td></td>
<td>Mean patient length of stay in minutes</td>
</tr>
</tbody>
</table>
## Analysis

### Quantitative Data
- Each item from discharge checklist and summary entered as aggregate data
- Patient satisfaction and confidence and team confidence: Likert scales
- Data compiled daily to evaluate if day of week or weekends were significantly different
- Data entered into run charts to look for shifts and trends and impact of changes in interventions over time

### Qualitative Data
- Open ended responses from team surveys
- Results coded and themes identified

### Frontier Nursing University & UNM IRB Review & Funding
- Excused from review by Institutional Review Board because did not qualify as human subjects research
- Meets federal requirements for quality improvement
- No outside funding received
## Results

<table>
<thead>
<tr>
<th>Test of Change/Core Intervention</th>
<th>Measure</th>
<th>Operational Definition</th>
<th>Baseline %</th>
<th>Result median N=800 n(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AIM:</strong> Within 60 days, 65% of patients will be discharged from OB Triage using an effective, patient centered discharge process.</td>
<td># discharge summaries and checklists 100% completed/ # patients discharged from OB Triage</td>
<td>0</td>
<td>668(83.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Teamwork</strong></td>
<td>Process</td>
<td>Team encounters</td>
<td>0</td>
<td>765(108)</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Team self-confidence</td>
<td>51</td>
<td>113(84)</td>
</tr>
<tr>
<td><strong>Patient engagement: Decision Aid “What is OB Triage?”</strong></td>
<td>Process</td>
<td>Patients completing Decision Aid</td>
<td>0</td>
<td>405(51)</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Patient confidence in ability to decide when to access OB Triage</td>
<td>81</td>
<td>92</td>
</tr>
<tr>
<td><strong>Discharge checklist</strong></td>
<td>Process</td>
<td>Checklists initiated</td>
<td>32</td>
<td>612(77)</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Completed discharge checklists</td>
<td>32</td>
<td>612(80)</td>
</tr>
<tr>
<td><strong>Discharge summary</strong></td>
<td>Process</td>
<td>Completed discharge summaries</td>
<td>0</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Patient confidence in knowledge about how to care for herself after discharge</td>
<td>75</td>
<td>92</td>
</tr>
<tr>
<td><strong>Balancing Measure</strong></td>
<td>Mean patient length of stay in minutes</td>
<td>194</td>
<td>191</td>
<td></td>
</tr>
</tbody>
</table>
Effective, Patient-Centered Discharge Process

Percentage of Patients Discharged from OB Triage Using Discharge Process

- Value
- Median
- Goal

- White board reminder 7/25
- Checklist shortened 7/29
- Mini-checklist on monitors 8/26
- Visit instructions in EHR piloted 8/26
Team Engagement

![Graph showing team self-confidence over time with specific data points and dates for surveys and videos.](image)

- 31/150 surveyed
- 19/150 surveyed
- 23/150 surveyed
- Video instructions available 7/29
- Super Users poster 8/12

Percent of team that agrees team communicates well in OB Triage

FRONTIER NURSING UNIVERSITY
www.frontier.edu
Discharge Checklist and Summary Processes

Discharge Summaries Received, Checklists Initiated and Completed

- Written patient prompt 8/12
- Visit instructions in EHR piloted 8/26
- White board reminder 7/25
Discussion

Summary

- 668 (83.5%) of 800 patients were discharged using an effective, patient-centered discharge process
- Patients: high confidence in knowledge of self-care
- Decision aid integrated into ambulatory care
- Team self-confidence increased by 64%

Strengths

- Team enthusiasm, leadership support
Interpretation

Patients: highly satisfied with process

- Team members inspired by patient satisfaction

Commitment to change

- Team inspired by project leaders’ responsiveness
- Nurses invested once providers showed commitment
- Leadership + microsystem motivation → positive QI culture and capability  
  (Kaplan, Froehle, Cassedy, Provost, & Margolis, 2013)
Conclusions

Sustainability—Visit Instructions in EHR

Implications for practice —value of consistent leadership in OB Triage, nursing role in patient discharge process

Implications for future--team implemented successful QI project with positive impact
References


Resumen para dar de alta de Evaluaciones Obstétricas de UNM

Fecha: ______________________
Persona del equipo que presenta el formulario completado: ______________________

Diagnóstico de alta: ______________________
Servicio: CNM VMCH OB

<table>
<thead>
<tr>
<th></th>
<th>Sí</th>
<th>No</th>
<th>No apl.</th>
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<tbody>
<tr>
<td>Nuevas recetas reivinadas</td>
<td></td>
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<tr>
<td>Resultados de laboratorios revisados</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratorios pendientes:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Si sí, ¿Quién va a dar seguimiento y cuándo?

Educación revisada:

Folletos de educación recibidos:

Próxima fecha y hora de la cita: ______________________
Rationale

Institute of Medicine domains: effective, patient-centered (Agency for Healthcare Research and Quality, 2018b)

Discharge summary (Boonyasai, Ijagbemi, Pham, & Wu, 2014)

Discharge checklist: increase team communication, efficiency, effectiveness (Gawande, 2009)

Huddles: increase team focus, situational awareness (Obenrader, Broome, Yap, & Jamison, 2019)

Patient decision aid: increase knowledge about OB Triage (Oshima Lee & Emanuel, 2013)