SMART Rounding: development of a nurse-driven rounding checklist as a sustainable intervention for improved care communication

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SMART Rounding:
Development of a nurse-driven rounding checklist as a sustainable intervention for improved care communication.

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Introduction

Gaps in team communication can lead to:

- Adverse safety events
- Negative patient experience
- Delays in patient care coordination

Checklists have been previously used as a highly reliable patient safety tool. When used across disciplines, checklists can standardize communication surrounding key safety and care items.

Checklists aimed at streamlining care delivery during team rounds have led to:

- Decreased CR monitor use\(^2\)
- Trend towards decreased time from discharge order to discharge\(^3\)
- Increased newborn nursery discharges before 1100\(^4\)

Checklist use on daily patient rounds have been studied most often in the intensive care setting and are associated with:

- Decreased Foley catheter, central line, and ventilator use\(^5\)
- Reduced lab frequency, optimized antibiotics\(^6\)
- Increased compliance with sedation holidays and prophylactic measures\(^7\)

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Introduction

At CMKC, 5 Sutherland is a 21-bed unit which serves the following patients:

- Liver, kidney, rehabilitation medicine, and general pediatrics.
- High acuity with transplant and dialysis patients, as well as a tracheostomy-cohorting floor.

High hospital census prompted improvement efforts in patient flow through hospital High Reliability Unit work

- Average discharge time: 14:32, with only 12% of discharges occurring prior to 11am
- A checklist had previously been trialed on 5 Sutherland which addressed patient safety and discharge readiness
- This checklist was re-visited in Fall 2019 to address late hospital discharges
## 5 Sutherland SMART Baseline Data

<table>
<thead>
<tr>
<th>Metric</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Patient need SA?</td>
<td>9%</td>
</tr>
<tr>
<td>Does patient still need monitors?</td>
<td>25%</td>
</tr>
<tr>
<td>Can any meds be converted to PO?</td>
<td>36%</td>
</tr>
<tr>
<td>Can IVF be discontinued?</td>
<td>83%</td>
</tr>
<tr>
<td>Does patient still require vascular access?</td>
<td>55%</td>
</tr>
<tr>
<td>Does patient have central or peripheral access?</td>
<td>47%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metric</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can line entries be consolidated?</td>
<td>10%</td>
</tr>
<tr>
<td>Can Foley be removed?</td>
<td>14%</td>
</tr>
<tr>
<td>Review labs/imaging schedule in next 24h</td>
<td>50%</td>
</tr>
<tr>
<td>Discharge criteria reviewed</td>
<td>70%</td>
</tr>
<tr>
<td>Med adjustment or need for refills discussed on rounds</td>
<td>35%</td>
</tr>
<tr>
<td>Other DC needs (education/follow-up) reviewed</td>
<td>39%</td>
</tr>
</tbody>
</table>

(Based on April- May 2019 Gold Team “secret shopper” audit)
Aim Statement

- Develop and implement a daily rounding checklist for use on the 5-Sutherland medical-surgical unit with at least 80% daily checklist use, sustained over at least 6 months.
Outcomes/Measures

• **Primary outcome**: Use of daily checklist on daily rounds.
• **Secondary outcomes**:
  • Discharge time/Time from order to discharge
  • Perceived efficacy of checklist and improved awareness of potential safety issues.
• **Process metric**: Percentage of patients with a complete rounding audit tool
• **Balancing measure**: Acceptability/time spent
Outcomes/Measures

• **Primary outcome**: Use of daily checklist on daily rounds.

• **Secondary outcomes**:
  • Discharge time/Time from order to discharge
  • Perceived efficacy of checklist and improved awareness of potential safety issues.

• **Process metric**: Percentage of patients with a complete rounding audit tool

• **Balancing measure**: Acceptability/time spent
Methods

Multidisciplinary effort to create daily rounding checklist:

- Unit nursing director and assistant directors, unit nurse Quality Improvement PC (also bedside nurse), unit nurse educator, unit high reliable physician leader (also hospitalist), nephrology physician
- Additional input from: bedside nursing and subspecialty rounding teams.
- Badge buddy created for easier use
Methods

Physician education
• Discussed checklist feasibility and checklist items/content with liver, kidney, rehab, and general pediatrics teams.

Nursing education
• Renewed interest in greater multidisciplinary communication, care coordination, and more timely hospital discharges
• Nursing leadership and bedside nursing staff “buy-in” to be the ones to initiate checklist review
• QIPC engagement for checklist audits
PDSA Cycle #1

**Problem:** Checklist not readily available on rounds

**Root causes:**
- No ownership of checklist
- Poor usability of previous checklist

**Intervention:**
- Introduce checklist with associated badge buddy
- Floor leadership educate staff on checklist use
- Streamlined checklist to include only 5 items
PDSA Cycle #2

Problem: Poor compliance with checklist audit, unclear on prevalence of checklist use

Root Cause:
- Ongoing COVID-19 pandemic & excessive nursing strain
- Overly complicated audit tool
- Inability to perform third party audits due to rounding limits and social distancing

Intervention:
- Simplify audit tool
Results

% of patients with audit

Week

Percentage of Patients

UCL

CL

LCL

23.58%

0.12%

34.79%
### Results

<table>
<thead>
<tr>
<th>The SMART Checklist</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improves multidisciplinary communication</td>
<td>11 (22%)</td>
<td>28 (55%)</td>
<td>10 (20%)</td>
<td>2 (3%)</td>
<td>0</td>
</tr>
<tr>
<td>Discusses otherwise unmentioned issues</td>
<td>9 (18%)</td>
<td>25 (49%)</td>
<td>14 (27%)</td>
<td>3 (6%)</td>
<td>0</td>
</tr>
<tr>
<td>Increases awareness of potential safety issues</td>
<td>5 (10%)</td>
<td>24 (47%)</td>
<td>16 (31%)</td>
<td>6 (12%)</td>
<td>0</td>
</tr>
<tr>
<td>Improves discharge planning</td>
<td>6 (12%)</td>
<td>16 (31%)</td>
<td>24 (47%)</td>
<td>4 (8%)</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Takes an acceptable amount of time</td>
<td>9 (18%)</td>
<td>31 (61%)</td>
<td>10 (20%)</td>
<td>1 (2%)</td>
<td>0</td>
</tr>
<tr>
<td>Leads to a delay in patient care</td>
<td>1 (2%)</td>
<td></td>
<td></td>
<td>50 (98%)</td>
<td>0</td>
</tr>
<tr>
<td>Disrupts rounds</td>
<td>3 (7%)</td>
<td></td>
<td></td>
<td>47 (92%)</td>
<td>0</td>
</tr>
</tbody>
</table>
Limitations

Selection bias present
• Those that complete audit are more likely to complete SMART checklist

Patient outcomes tracked but were not used as measures for this pilot study
• Designed as feasibility project due to confounders with COVID-19

No third-party auditing
• Limited by rounding limits during early pandemic.
• Third-party audits now part of routine.
Conclusions

- Multidisciplinary stakeholders are essential to quality improvement projects related to daily rounds and team communication.
- The insertion of a structured rounding checklist into the workflow of a multidisciplinary care team is both feasible and acceptable to staff.
- Average time reported to complete checklist is additional 30-60 seconds.
- Simplified audit tools can lead to sustainment of new work processes into daily workflow of a medical/surgical rounding unit.
Next Steps

• Checklist now used on all medical surgical floors with third party auditor.

• Current PDSA cycle focused on improving nursing presence on rounds

• Enhanced efforts and data collection on team members’ shared understanding of plan and perception of team communication

• Ongoing evaluation of other outcome metrics (discharge patient time, time between discharge order and patient discharge, monitor use, patient/family engagement scores)
References


Recognition

• Mentors: Dr. Darcy Weidemann & Dr. Adrienne DePorre
• QI Team: Erica Adams, Jessica Olson, Amber Hunley, Dustin Hahn
• Dr. Katie Berg for help developing the p-charts