Improving Mobilization Orders in Critically Ill Pediatric Patients as part of PICU Up!™ implementation in a rural, academic, combined PICU

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Background / Introduction

- Prolonged immobilization in critically ill patients leads to increased ICU length of stay
- PICU UP!™, a bundled intervention to create a culture of mobility within the PICU
  - safe and feasible
  - facilitated the formal involvement of PTs and OTs in the care of critically ill children
  - increased mobilization activities of critically ill children
Collaborative Team Members

- Cindy Keel, PICU Nurse Practitioner Leader
  - Bill Novotny, PICU Physician Champion
  - John Kohler, Physician, Children’s Hospital Quality
- PICU Up!™ Team Members

Team Leader Key Contact Info: Cindy Keel, cynthia.keel@vidanthealth.com
AIM Statement

To decrease the time to PT referral for critically ill pediatric patients in the PICU by 20% within 3 months
How Will We Know This Change Is An Improvement?

A sample of 20 PICU admissions will be evaluated monthly to determine the average time from admission to physical therapy consult while monitoring for a decrease in this measure over time.
Baseline Data

- Baseline data was collected from January 2018-April 2018
- 20 patients were randomly selected for sampling

<table>
<thead>
<tr>
<th>Month</th>
<th># Admissions</th>
<th>Sampling %</th>
<th>% Sampled with PT order</th>
<th>Average time to order (h)</th>
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</thead>
<tbody>
<tr>
<td>January 2018</td>
<td>57</td>
<td>35%</td>
<td>0%</td>
<td>-</td>
</tr>
<tr>
<td>February 2018</td>
<td>59</td>
<td>34%</td>
<td>25%</td>
<td>59</td>
</tr>
<tr>
<td>March 2018</td>
<td>60</td>
<td>33%</td>
<td>10%</td>
<td>69</td>
</tr>
<tr>
<td>April 2018</td>
<td>53</td>
<td>38%</td>
<td>25%</td>
<td>89</td>
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Improvement Strategies Employed

- **PDSA #1**: barrier survey to PICU multidisciplinary staff to assess perceived barriers to getting PICU patients active
  - Survey was sent via RedCap
  - We wanted to ensure we were aware of what concerns and questions the staff had about PICU patient mobilization

- **PDSA #2**: Safety Timeout completed daily by the APP
  - PT Consults by Day #3 were explicitly called for on form
  - This was an active intervention to get the PT consult done sooner

- **PDSA #3**: Educational bulletin board about passive range of motion activities in critically ill pediatric patients
  - This was selected to continue to focus staff on mobilization to continue success
Outcomes
Challenges Encountered in QI Process

- Keeping up program momentum and having the team remain engaged can be challenging in a stressful ICU environment.
- Changing culture involves much more than providing information, it’s changing mindsets which takes time and lots of effort.
Lessons Learned Through QI Efforts

- It is key to gather a multidisciplinary team to make improvements.

- Asking questions about barriers to implementation adds insight into where project interventions can be directed.

- Targeted quality improvement interventions can improve early referral to multidisciplinary providers as part of a global unit initiative to improve mobilization in critically ill pediatric patients.
Next Steps

- PT/OT involved within 3 days of PICU admission on most patients
- Increase multidisciplinary staff education with use of PICU Up!™ mobilization and delirium screening online modules
- Begin utilizing PICU Up!™ Levels on every PICU patient who meets criteria
- Optimize sedation practices to allow for targeted SBS score
- Promote sleep hygiene
- Routinely perform spontaneous breathing trials
- Minimize restraint use
- Improve utilization of pediatric delirium screening tools
- Communication boards/devices for all patients needing them
- Data collection
Questions?

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