Professional Practice Model EP1EO

Two examples are required; one example must be from ambulatory setting, if applicable.

a. Provide two examples, with supporting evidence, of an improved outcome associated with an evidence-based change made by clinical nurses in alignment with the organization’s professional practice model (PPM).
   - Outcome data must be in the form of a graph and a data table
   - Provide a schematic of the PPM

**Example a: eICU Nurses Advocate for Earlier Intervention for Hyperglycemia in ICU Patients**

**Problem**
The WakeMed Professional Practice Model, CARES, includes the core values of Communication, Excellence and Safety. (Evidence EP1EOa-1, WakeMed Professional Practice Model) Evidence has shown that survival rates for intensive care unit (ICU) patients improve when patient blood glucose levels are below the best practice value of 180mg/dL, and for some patients below 140mg/dL, as cited by the American Diabetes Association (ADA) Standards of Medical Care in Diabetes 2018.

Good communication between nurses and physicians drove this practice change to provide excellent care and more safely manage glycemic control. In December 2017, Clinical Nurse Beverly Alfman, RN, CCRN-E, Electronic Intensive Care Unit (eICU) reviewed the 1st Quarter FY 2018 eCare Report that compiles data on several clinical measures for the ICU patients at WakeMed. This data is pulled from the electronic medical record of ICU patients and compiled into the quarterly report.

Alfman compared the ICU results with evidence from the ADA and noted that for 1st Quarter FY 2018 (October-December 2017), only 65% of patients had a daily blood glucose level within the 70-140mg/dL range cited by the ADA as the optimal blood glucose range. This metric is calculated by dividing the number of patients in the optimal range (70-140mg/dL) by the number of ICU patient days and multiplying by 100 to express as a percent.

**Goal Statement**
The goal was to improve the percent of WakeMed Health & Hospitals ICU patients with daily blood glucose levels within the 70-140mg/dL range.
Participants

<table>
<thead>
<tr>
<th>Name/Credentials</th>
<th>Discipline</th>
<th>Title/Role</th>
<th>Department</th>
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<tbody>
<tr>
<td>Beverly Alfman, RN, CCRN-E</td>
<td>Nursing</td>
<td>Clinical Nurse – Lead</td>
<td>eICU</td>
</tr>
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<td>Monica Dale, BSN, RN, CCRN-E</td>
<td>Nursing</td>
<td>Clinical Nurse</td>
<td>eICU</td>
</tr>
<tr>
<td>Shelly Deifer, BSN, RN, CCRN-E</td>
<td>Nursing</td>
<td>Supervisor/Educator</td>
<td>eICU</td>
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<td>Bonita Ryan, RN, CCRN-E</td>
<td>Nursing</td>
<td>Clinical Nurse</td>
<td>eICU</td>
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<td>Ellen Werner, BSN, RN, CCRN</td>
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<tr>
<td>David Kirk, MD</td>
<td>Physician</td>
<td>Direction Physician Intensivist</td>
<td>WPP Pulmonary/ Critical Care Medicine – Raleigh</td>
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<tr>
<td>Ted Feinson, MD</td>
<td>Physician</td>
<td>Physician Intensivist</td>
<td>WPP Pulmonary/ Critical Care Medicine – Raleigh</td>
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Description of the Intervention

2nd Quarter FY 2018 (January-March 2018)

- Alfman identified that the WakeMed Professional Practice Model components of Excellence and Safety would drive an opportunity for improvement in blood glucose levels.
- Alfman met with eICU Unit Council members, eICU Quality Committee, and management to brainstorm ideas and use the ADA evidence to determine how the nurses could impact and improve the average daily blood glucose levels of ICU patients.
- Alfman met with physician team members to discuss and plan collaboration.
- Based on the ADA standards, the team decided on a nurse-driven process of identification and collaboration:
  - eCareManager report flags patients with two consecutive glucose results > 180mg/dL
  - Nurse reviews current orders and glucose management
  - Communication and collaboration between nurse and medical intensivists for real-time interventions
- Alfman and her team educated the eICU nursing staff and medical intensivists on this new communication and collaboration process.

Outcomes

Clinical Nurse Alfman’s use of evidence from the ADA Standards of Medical Care in Diabetes 2018 for managing glycemic control in ICU patients, in alignment with WakeMed’s Professional Practice Model, resulted in the percent of patients with daily
blood glucose levels within the 70-140mg/dL range improving from 65% in 1st Quarter FY 2018 (October-December 2017) to:

- 69.8% in 3rd Quarter FY 2018 (April-June 2018)
- 66.8% in 4th Quarter FY 2018 (July-September 2018)
- 66.1%: 1st Quarter FY 2019 (October-December 2018)

Evidence EP1EOa-2, WakeMed Health & Hospitals Adult ICU Percent of Patients with Daily Blood Glucose Levels within 70 – 140mg/dL Range