Translating Guidelines into Practice: Improving Continuous Glucose Monitoring Device Validation for Patients Using Insulin Pumps During Hospitalization

Kimberly D. Miller DNP, AGCNS-BC, CDCES, BC-ADM, Clareen Wieneck, PhD, ACNP-BC, Richard Ridge, PhD, RN, NEA-BC

**Background**

- Wearable diabetes technology (insulin pump, CGM) evolving rapidly and increasing utilization of Automated Insulin Delivery (AID) mode
- Professional societies endorse and patients prefer continuation of insulin pump systems during hospitalization
- June 2021, The Joint Commission (TJC) issued Quick Safety 59 which included recommendation that organizations implement a process to validate accuracy of CGM compared to hospital approved glucometer

**Review of Literature**

- Clinical Decision Support (CDS) embedded in the electronic health record (EHR) that provides actionable information can improve nursing process outcomes
- CGM validation improved from 25% to 40%
- 71 out of 89 post implementation patient encounters continued AID mode during hospitalization

**Intervention**

Using Model for Improvement PDSA methodology, we implemented CDS in the form of an interactive nursing task integrated into standard nursing workflow

**Results**

- CGM validation improved from 25% to 40%
- 71 out of 89 post implementation patient encounters continued AID mode during hospitalization

**Evaluation**

- CDS targeting nursing practices can improve compliance with CPGs
- Contextual factors within EHRs such as customization within modules impacts effectiveness of CDS
- Opportunities for repeat PDSA:
  - Tailoring documentation to different modules in EHR that don’t utilize nursing workspace
  - Targeting admission workflow for CGM validation documentation

**Goal**

The purpose of this project was to increase the percentage of patients admitted to the hospital wearing an insulin pump and a continuous glucose monitor (CGM) who have their CGM validated against the hospital approved glucometer per the institutional Clinical Practice Guideline (CPG)

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