**Electronic Enablement for SCIP-4 Glycemic Control in Surgical Patients**

Amy Merlino, MD ACMIO, Cheryl Milller, RN Manager

Clinical Systems Office, ITD, Cleveland Clinic Health System

**Scope of the Project**
- Achieve compliance with the new measure
  - Start Blood glucose: 18-24 hrs after end of anesthesia
  - All hospital discharges occurring after 1/1/13 must be in compliance with this new measure
  - CMS reimbursement for VBP

**Participants in the project**
- Nursing, CVICU, PICU, stepdown and regional hospital units
- Anesthesia
- Laboratory services, CPN
- IT and EHR technical teams
- Executive, management and regional hospital physicians and NPs

**Specific Tasks to Address**
- Nurses, Pharmacist, Physicians, NPs, MDs and RNs, multidisciplinary
  - Modify the in-house insulin protocol
    - Identify the in-house cannula protocol
    - Modify insulin to provide: glucose level is above 180 for 6 hrs after end of anesthesia
      - Change order set to include 180 mg/dL range
    - Patient specific, individualized control and alerts
  - Monitor blood glucose level and alerts for the required period

**2013 SCIP Hospital Clinical Change**
- Surgical Specificity - include criteria based on CMS defined surgical CPT Codes
  - Individualized insulin ordered based on the patient's actual insulin needs during the 18 hour period
  - Protocol
  - Implementation
  - Compliance

**2014 SCIP Hospital Clinical Change**
- Surgical Specificity - include criteria based on CMS defined surgical CPT Codes
  - Individualized insulin ordered based on the patient's actual insulin needs during the 12 hour period
  - Protocol
  - Implementation
  - Compliance

**CMS Rule Change**
- May 2013
- Final Solutions Defined October 2013
- Production Move December 15, 2013

**Risk Identified**
- Hypoglycemia is a risk associated with agressive glucose (BG) management

**Monitoring Hypoglycemia BG < 70**
- Vital signs in front line providers (based on local standards)
  - Blood glucose < 40
  - Hypoglycemia > 97
  - Severe Hypoglycemia > 90

**Results**
- Maintained high compliance with the metric
- Minimized hypoglycemia

**Challenges, unresolved issues**
- Compliance with SCIP-4 is difficult
  - Problems starting end of surgery
  - When patients receive systemic steroids or are treated for hyperkalemia with dextrose and insulin
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**Rationale for Measure**
- **Monthly** after myocardial infarction
- **Monthly** after cardiac surgery
- **Vital signs** in front line providers
- **Readmissions, calculated patient safety indicator**

**Methods**
- We brought together a multidisciplinary group to review the people, processes and technology needs to assure a solution high compliance with this measure.

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