Topics in Inpatient Glycemic Control

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• 3A.1. Implement perioperative glycemic control & use blood glucose (BG) target levels less than 200 mg/dL in patients with and without diabetes.

• Category IA–strong recommendation; high to moderate–quality evidence.
• 3B. The search did not identify randomized controlled trials that evaluated the optimal hemoglobin A1C target levels for the prevention of SSI in patients with and without diabetes.

• No recommendation/unresolved issue
Centers for Disease Control and Prevention
Guidelines for Prevention of SSI, 2017 Glycemic Control

Bottom Line:

• During surgery, blood glucose target levels should be less than 200 mg/dL

• Future revisions to this guideline will be guided by new research and technological advancements for preventing SSIs.
30-Day Readmission Rates for Diabetes Patients: How Bad Is It?

• General Inpatient Population: 8.5-13.5%

• Inpatients with diabetes: 14.4-22.7%

• Risk Factors: co-morbidities, ED admission, low socioeconomic status, public insurance, racial/ethnic minority, recent admission

Transitional Care Strategies Known To Help Lower Risk of Readmission

- Identify high risk patients
- Obtain & utilize A1c results during hospital stay
- Improve discharge prescription writing
- Med-to-Bed discharge medication delivery
- Diabetes self-management education in survival skills
- Follow up phone calls
- Follow up appointments

Barriers to Obtaining A1c at NewYork-Presbyterian/Cornell Campus

• 80 charts were found to have 2 or more BGs >180 mg/dL in 24 hours, A1c requested by research assistant

• Took 1-3 days with multiple requests to get A1c ordered on 48 of the 80 patients with hyperglycemia.

• 32 of the 80 patients never had an A1c ordered prior to discharge.

• **Lesson Learned:** Consider *auto-selecting A1c order in insulin order set to if A1c not done within past 2-3 months to facilitate timely result*

Preventing Readmissions

Barrier: “Right” Prescriptions

\[ \frac{3}{4} \text{ of pts with Rx’s for insulin had no Rx’s for needles} \]

Med-To-Bed Barriers at NYP/Cornell

Results: 61.1% (n=22) received medication reconciled to match insurance and delivered to bedside prior to discharge

Barrier: Delays in obtaining RX to send to med-to-bed pharmacy, Med-to-Bed pharmacy did not check for missing RXs e.g. needles, test strips despite educating pharmacists to check

Reason for delay in writing RX: Prescriber uncertainty about what meds/doses patient would go home on (not needed to verify coverage)

Lesson Learned: Get RXs for current Diabetes Meds at current dose to check which insulin/devices are covered with med-to-bed pharmacy

Diabetes Self-Management Education

Promote EARLY Diabetes Education

- Alert Bedside RN to educate *high-risk* patients as soon as patient is ready to learn
- Use routine BG monitoring, insulin administration & meal trays as teachable moments
- Improve RN access to diabetes self-management tools: self-care guides, insulin pen training kits & blood glucose meters to take home
- Train Diabetes Champions on Key Units to assist with education, availability of teaching resources, reviewing rates of hypo/hyperglycemia
Preventing Readmissions

Best Strategy: Diabetes Education

75% of the 8 patients who had **no diabetes education** were readmitted w/in 30 days

ISMP Guidelines for Optimizing Safe Subcutaneous Insulin Use in Adults

• Insulin pens should have \textit{patient-specific} barcoded label
• Store Insulin pens in patient-specific bins & return IMMEDIATELY after use
• RN should never have more than one pen in possession at any time
• Never use insulin pen as vial, withdrawing insulin with syringe
• At time of pt. transfer or discharge, insulin pen should be removed from patient bin and transferred with patient or returned to pharmacy
• Concentrated insulins: Pens preferred. “U-100”, “U-200”, “U-300” should NOT follow name of insulin in MAR or med lists to reduce risk of mistaking strength of insulin as DOSE
• ONE EXCEPTION: “regular insulin U-500” vial should have U-500 after name

Selected References


