Evaluation of New Insulin Infusion Protocols in Advocate Aurora Health

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BACKGROUND

AAH developed and implemented 2 new nurse-managed insulin infusion protocols in October 2019

• Endocrine (Endo) inpatient (IP) Insulin Infusion – Goal blood glucose: 140-180 mg/dL
  – For most non-OKA patients
• Cardiovascular (CV) Surgery inpatient (IP) Insulin Infusion – Goal blood glucose: 110-150 mg/dL
  – Used almost exclusively post cardiac surgery

METHODS

• Retrospective medical record review of blood glucose values for first 4 months after protocol launch
• Data obtained through monthly EPIC® data report –Blood glucose data for all patients while on an insulin infusion –MRN, point of care (POC) BG (mg/dL) with date and time stamps, protocol used, hospital, hospital unit
• Safety and efficacy endpoints were chosen in collaboration between pharmacy and endocrine within AAH

RESULTS

Safety Endpoints

• Percent of patient stays experiencing severe hypoglycemia –Any POC blood glucose < 54 mg/dL while on insulin infusion protocol

Efficacy Endpoints

Average blood glucose
• Average BG while on insulin infusion protocol

Average % of values in acceptable range

CV Surgery Efficacy

Goal Blood Glucose 110-150 mg/dL

Average BG (mg/dL)
• Endo: 101-210 mg/dL
• CV Surgery: 71-180 mg/dL

CONCLUSIONS

• 2% patient stay average for Endo IP protocol
• 2.8% patient stay average for CV Surgery protocol

REFERENCES