

HQIC Patient Safety: Adverse Drug Events

Welcome!

- All lines are muted, so please ask your questions in the Chat Panel
- For technical issues, chat to 'All Panelists'
- Please be aware that this event will be recorded

We will get started shortly!

HQIC Adverse Drug Events: Inpatient Hypoglycemic Events



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Carol Snowden, RN, BSN
Alabama Hospital Association

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Hospital Quality Improvement

Welcome from all of us!



Adverse Drug Event Co-Leads



Carol Snowden, RN, BSN

Carol has over 20 years of experience in clinical nursing and quality improvement. She joined the Alabama Hospital Association as Quality Director in March 2021.

Contact: csnowden@alaha.org



Jennifer Massey, PharmD

Jennifer has 15 years of health care experience, including clinical pharmacy in the acute care hospital setting and in various roles at Alliant Health Solutions working on the CMS contract for the Quality Innovation Network–Quality Improvement Organization (QIN–QIO). She currently serves as the SME for Opioids and Adverse Drug Events for HQIC.

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Learning Objectives

- Learn Today:
 - How hypoglycemia adversely affects inpatient stays
 - Literature Review on inpatient management on hypoglycemic events

- Use Tomorrow:
 - Strategies for system level improvement

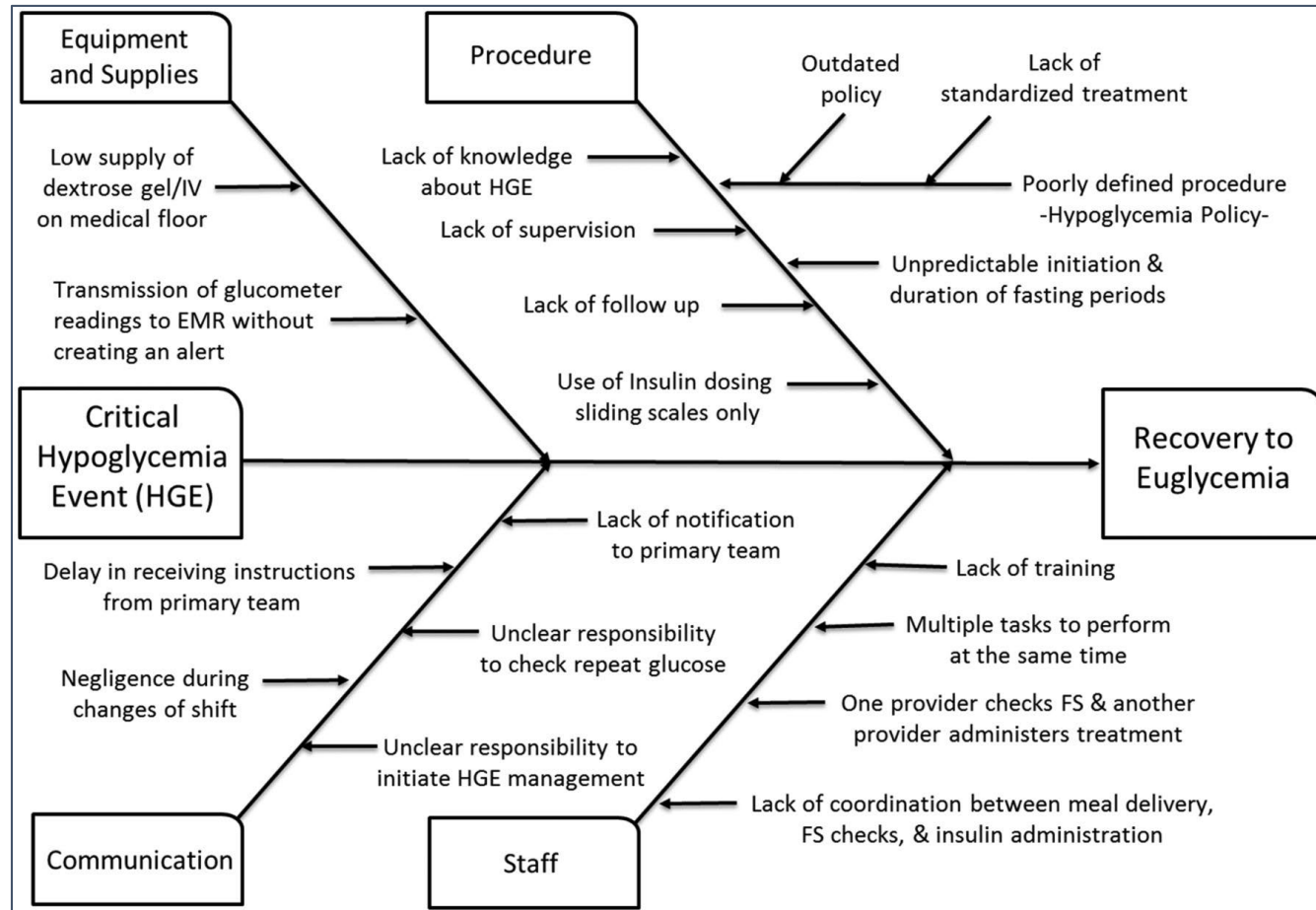
Definitions

- Critical hypoglycemia: <50 mg/dl
- Hypoglycemia: 50-69 mg/dl or 70-79 mg/dl with symptoms
- EMR: electronic medical record
- FS: finger stick
- REV: rapid emergency evaluation team
- HGE: hypoglycemia event

Patient Harm with Poor Glycemic Control

- Increased length of stay
- Delays in surgical procedures
- Adverse effects on wound healing
- Increased risk of infection
- Increased risk of adverse events and medication errors
- Increased readmission rates

Root Cause Analysis of Hypoglycemic Events (HGE)



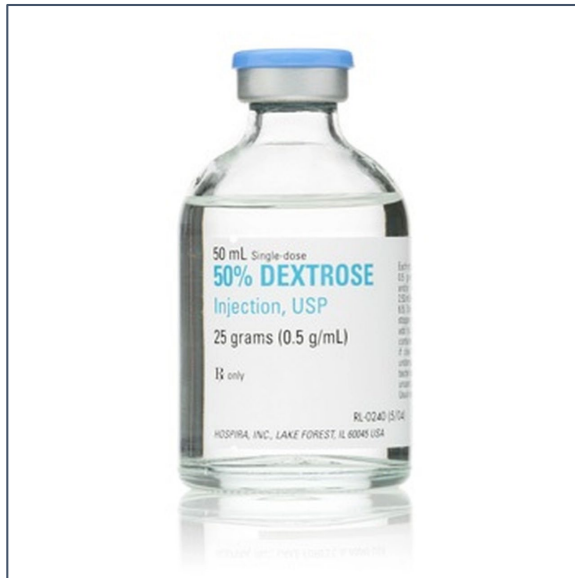
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RCA: Equipment and Supplies

- Low supply of dextrose gel/IV on medical floor
- Transmission of glucometer readings to EMR without creating an alert



RCA: Communication

- Delay in receiving instructions from primary team
- Negligence during changes of shift
- Lack of notification to primary team
- Unclear responsibility to check repeat glucose
- Unclear responsibility to initiate HGE management

RCA: Procedure

- Lack of knowledge about HGE
- Lack of supervision
- Lack of follow up
- Use of sliding scale insulin only
- Poorly defined procedure/hypoglycemia policy
 - Outdated policies
 - Lack of standardized treatment
- Unpredictable initiation and duration of fasting periods

RCA: Staff

- Lack of training
- Multiple tasks to perform at the same time
- One provider check FS and another provider administers treatment
- Lack of coordination between meal delivery, FS checks, and insulin administration

Hypoglycemia 'Bundle'

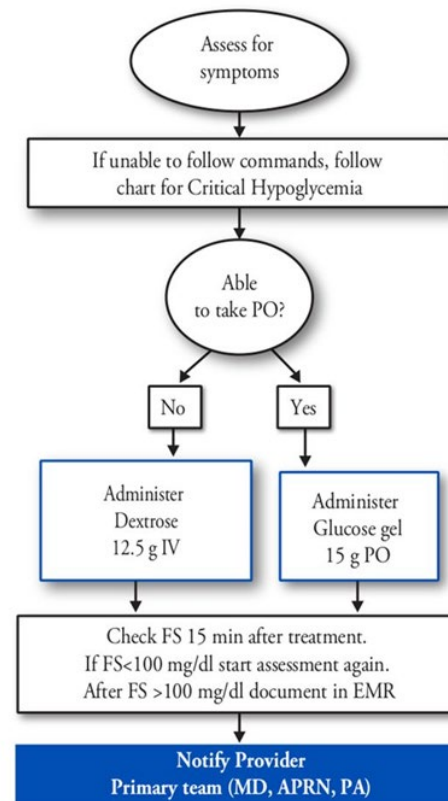
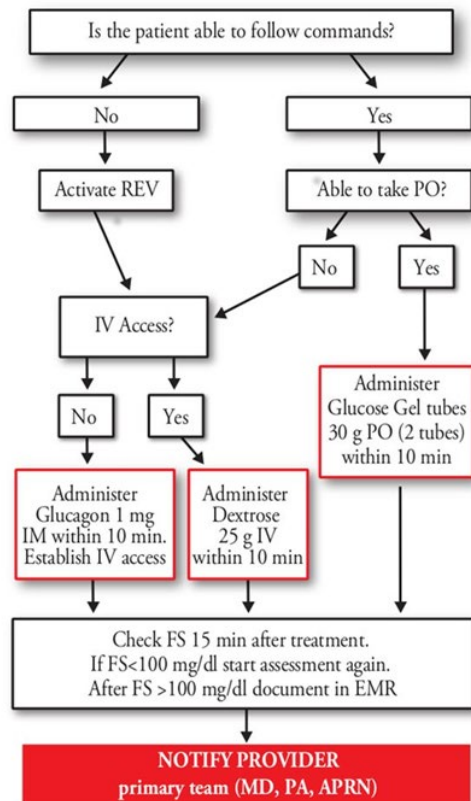
- Interventions to improve treatment of HGE
 - Standardization of treatment (glucose gel, IV dextrose, IM glucagon)
 - Dextrose administration by nursing staff without requirement for physician orders and Pyxis alert to check f/u FS after treatment
 - EMR order set for insulin regimen: basal/bolus correction and automated hypoglycemia order set
 - Automated physician notification immediately after HGE to reassess risks
 - After 2 HGEs, automated best practice advisor on EMR with recommendation for endocrine consult
 - Standardized hypoglycemia management protocol-laminated card on ID badge
 - Education of nursing staff and inpatient medical teams

Badge Buddies

CRITICAL HYPOGLYCEMIA ≤ 50 mg/dl
Notify MD/RN

**HYPOGLYCEMIA 51-69 mg/dl,
 or 70-79 with symptoms**
Notify MD/RN primary team

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Overview

- Created a multidisciplinary hypoglycemia committee
- Performed an RCA of HGE's on 2 inpatient floor with highest rates of those events
- Implemented a hypoglycemia bundle-of-care intervention

Keys to Success

- Importance of a RCA in recognizing and addressing unique system failures
- Initiating a hypoglycemia bundle of care reduce the time to recovery and f/u FS measurement
- Standardizing the assessment and management of HGE's improves patient safety

References

- Araque KA, Kadayakkara DK, Gigauri N, *et al* Reducing severe hypoglycaemia in hospitalised patients with diabetes: Early outcomes of standardised reporting and management *BMJ Open Quality* 2018;**7**:e000120. doi: 10.1136/bmjopen-2017-000120
 - <https://bmjopenquality.bmj.com/content/bmjopen/7/2/e000120.full.pdf>
- Konder C, Anderson L, Pohlgeers K. Glucose Management in Hospitalized Patients. *Am Fam Physician*. 2017 Nov 15;96(10):648-654.
 - <https://www.aafp.org/afp/2017/1115/p648.html>

Key Takeaways

- Learn Today:
 - How hypoglycemia adversely affects inpatient stays
 - Literature Review on inpatient management on hypoglycemic events
- Use Tomorrow:
 - Strategies for system level improvement




How will this change what you do? Please tell us in the chat.

Questions?



Email us at HospitalQuality@allianthealth.org or call us 678-527-3681.

HQIC Goals



Behavioral Health Outcomes & Opioid Misuse

- ✓ Promote opioid best practices
- ✓ Decrease high dose opioid prescribing and opioid adverse events in all settings
- ✓ Increase access to behavioral health services



Patient Safety

- ✓ Reduce risky medication combinations
- ✓ Reduce adverse drug events
- ✓ Reduce *C. diff* in all settings



Quality of Care Transitions

- ✓ Convene community coalitions
- ✓ Identify and promote optical care for super utilizers
- ✓ Reduce community-based adverse drug events

Upcoming Events

February 22nd, 2022

12:30pm EST

(occurring the fourth Tuesday of each month)

Anticoagulant and Glycemic ADE Patient Safety Network

Jennifer Massey and Carol Snowden

www.quality.allianthealth.org



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Thank you for joining us!
How did we do today?

Alliant Health Solutions



AlliantQIO



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