

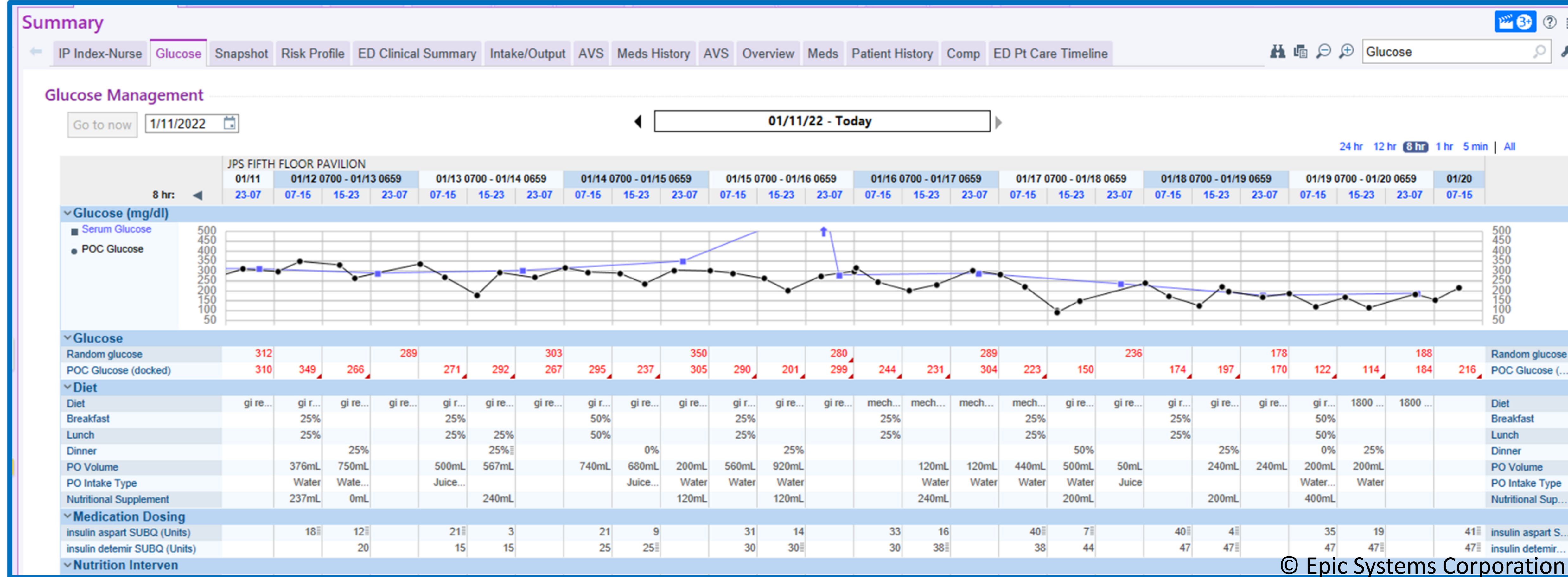
EHR Glucose Management Graph for Inpatient Insulin Dosing & Titration

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Introduction

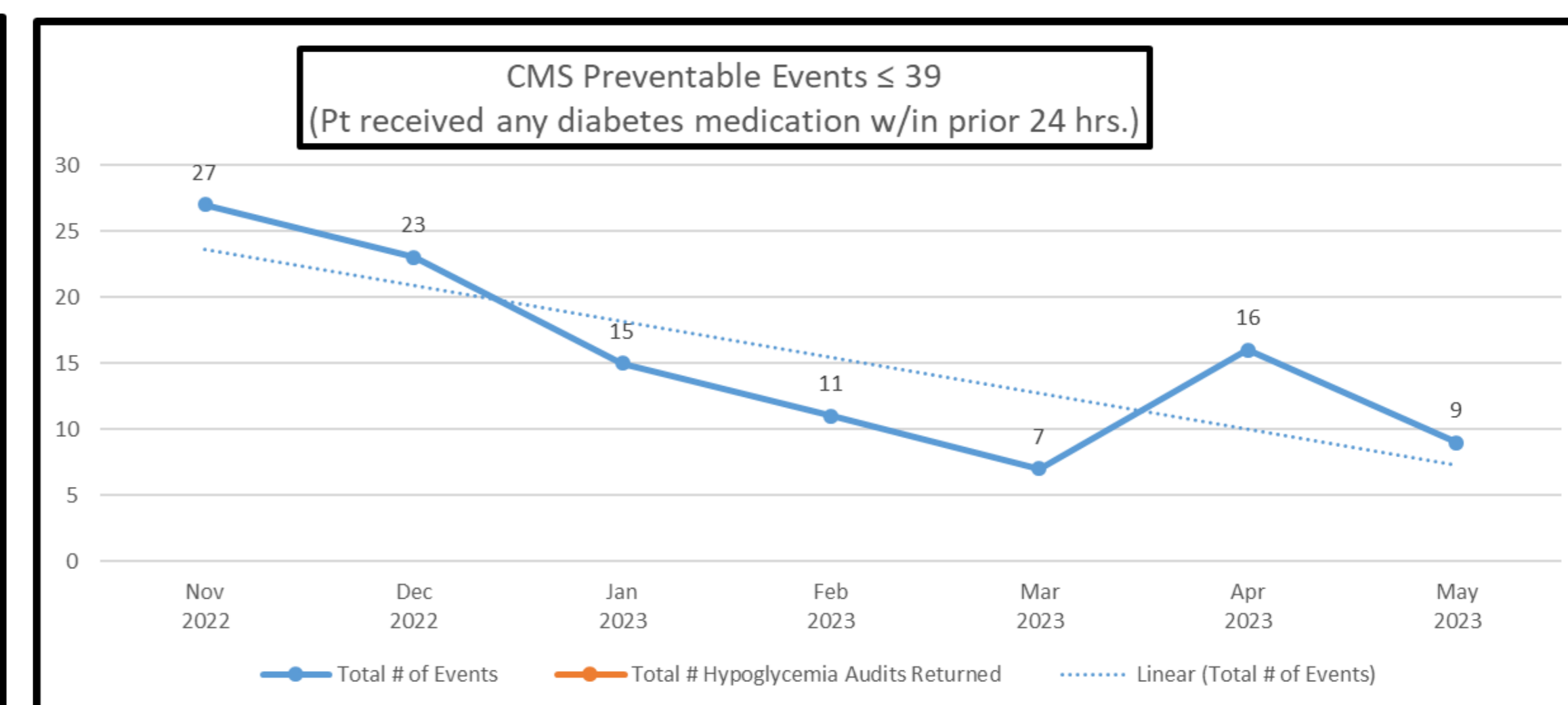
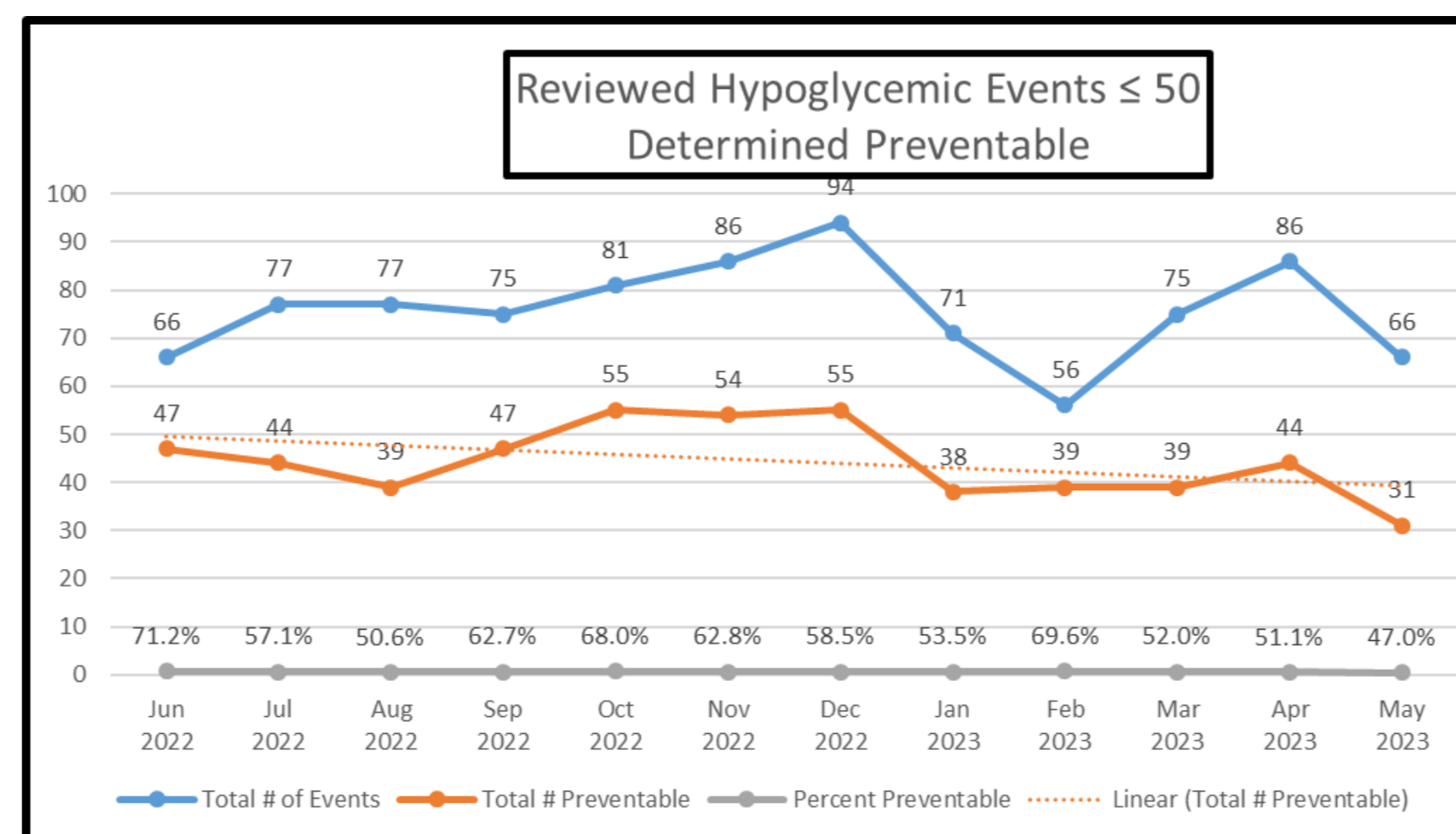
- Poor glycemic management during hospitalization is associated with increased complications (Lansang & Umpierrez, 2016).
- Management of inpatients with glycemic challenges is dependent upon staff knowledge and collaboration between all health care roles.
- Through a consistent approach to chart review, glucose level trending, insulin dosing recommendations, and staff education, the incidence of preventable glycemic abnormalities is decreased.
- Secondary to the recognized complications and the reflection on quality of care associated with unmanaged inpatient glycemia, CMS is instituting two new reporting measures in Jan 2023:
 - Critical hypoglycemia (BG <40)
 - Critical hyperglycemia (BG ≥ 300)
- In preparation for CMS reporting measures and disease specific certification, the Inpatient Diabetes Program is undergoing a performance improvement review.



Description

- The Glucose Management Graph is a tool located in the electronic health record.
- It enhances decision-making for glycemic management by plotting glucose levels and reflects the effects of insulin dosing and patient intake.
- The ability to interpret the glucose graph and determine trends is necessary for assessing the appropriateness of insulin dosing and titrating this critical medication.
- The Glucose Management Graph contains:
 - Glucose values from laboratory results and point-of-care testing (POCT)
 - Variable views: every 1, 8, 12, or 24 hours
 - Hemoglobin A1C values
 - Patient diet, percent intake, oral liquids volume/description
 - Medications that impact glucose: diabetes meds, steroids
 - Information located on three separate flowsheets: Results, Intake, MAR

Results



Overbasal-dose not decreased	ED
Stacked insulin administration	E3
DKA/HHS Insulin Infusion	E3 X2 BHESA
Hyperkalemia treatment	AHU
Inadequate monitoring	E3
Insulin dosing not adjusted from previous hypoglycemic event	ED ICU E3
Significance of large gluc drop not recognized & intervened upon	E3 X2 ICU E3

Conclusions

The Glucose Management Graph reflects a comprehensive view of inpatient glycemic management that allows for improved decision making for administering and titrating insulin.

Reference

Lansang, C.M., & Umpierrez, G.E. (2016). Inpatient hyperglycemia management: A practical review for primary medical surgical teams. *Cleveland Clinic Journal of Medicine*, 83, S34-S43. doi: 10.3949/ccjm.83.s1.06