

A Retrospective Analysis of Efficacy and Compliance of a Presurgical Hyperglycemia Protocol Change at Albany Medical Center



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Purpose

Compare blood glucose data from two groups, before and after a new protocol is implemented, to examine the efficacy of the new protocol on the impact of postoperative outcomes



ERAS 3 patients

Unable to determine

Switched to all ERAS levels

Poor compliance overall

Methods

- Retrospective chart review
- ERAS neurospinal cases that had a preoperative POC blood glucose drawn
- Two groups: three months prior and three months post protocol change
- Diabetic and nondiabetic: subcategories of blood glucose ranges
- Postoperative outcomes:**



Results

- Patients with poorly controlled diabetes mellitus were found to have increased incidence of SSI
- The relationship between elevated *HbA1c* and increased incidence of surgical site infections
- An elevated fasting blood glucose, >150 mg/dL, not considered a statistically relevant risk factor for poor surgical outcome

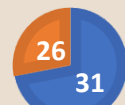
ASA

■ 2 ■ 3 ■ 4



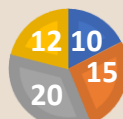
BIOLOGIC SEX

■ Male ■ Female



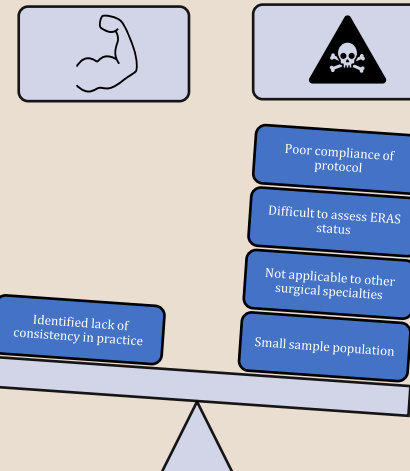
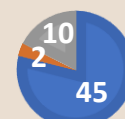
BMI

■ 20-25 ■ 26-30 ■ 31-35 ■ >35



RACE

■ Caucasian ■ African American ■ Unknown



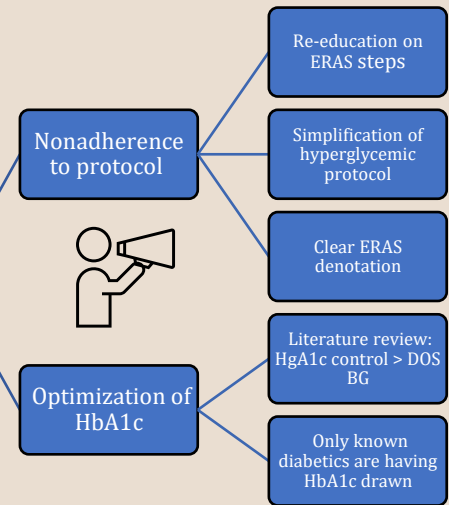
Background

In the United States, 37.3 million people are living with diabetes mellitus (DM) ¹

↑ Blood glucose =
 ↑ Vascular fragility
 ↑ Ischemia & hypoxia at surgical site
 ↑ Delay of healing

↑ HbA1c =
 ↑ Postoperative surgical site infections
 ↑ Duration of stay
 ↑ Transition to higher level of care

Discussion



Future Suggestions

