BACKGROUND: Uncontrolled perioperative glucose levels have been demonstrated to affect outcomes of type 2 diabetics and non-diabetics undergoing surgical procedures. The lack of standardized protocols to manage hyperglycemic events place patients at increased risk of infection, hospital lengths of stay, morbidity, and mortality (Cho et al., 2018; Duggan & Chen, 2019; Joslin Diabetes Center, 2019; Nair, Horibe, et al., 2016; Vogt & Bally, 2020).

PURPOSE/AIMS: The purpose of this project was to monitor clinician compliance with Emory University School of Medicine’s Perioperative Glycemic Management Protocol (PGMP) in diabetic patients undergoing elective noncardiac surgeries at a Southern California medical center and examine patient glycemic outcomes before and after an educational intervention.

METHODS: Retrospective chart audits were conducted and proper adherence to the PGMP was compared before and after education was provided to anesthesia providers. Data were obtained from the electronic health records of patients with type 2 diabetes mellitus who underwent general anesthesia. A total of 100 preintervention and 100 postintervention charts were included in the data collection sample.

INTERVENTION: The Emory University School of Medicine’s PGMP was used to educate anesthesia providers at a Southern California medical center. Retrospective chart audits were done to assess provider compliance to the PGMP and patient glycemic outcomes before protocol education and post-education.

RESULTS: Intraoperative blood glucose checks had a statistically significant gain from 14% to 39% \( (p < 0.001) \). Other process measures, such as frequency of insulin administration, and outcome measures, such as patient blood glucose control, were without significant change. These results indicated a continued deficiency in proper intraoperative glucose monitoring and insulin administration.

CONCLUSION: Despite improved assessment of blood glucose levels, it is recommended that further assessment of barriers to compliance with the PGMP and initiation of targeted interventions to optimize perioperative glucose management in patients be implemented.