



## Purpose

- ❖ The purpose of this QI project was to provide an educational presentation that will increase anesthesia provider's knowledge on analyzing the current research surrounding management of patients on GLP-1RA medications, identifying high risk patients undergoing anesthesia, and assessing future literature.

## Background/Significance

- ❖ GLP-1RAs, initially designed to address T2DM, have now emerged as highly effective agents in combating obesity (Dowsett & Yeo, 2023).
- ❖ While generally well tolerated, these medications, owing to their nature as modified gut hormones, can elicit gastrointestinal-related adverse effects such as nausea, vomiting, headaches, and diarrhea (Wilding et al., 2021).
- ❖ According to data from Trilliant Health, the metro area with the largest rise in Ozempic® (semaglutide) prescriptions is Phoenix, with a 158 percent increase in prescriptions from 2021 to 2022 (Emersen, 2023).
- ❖ Available literature uncovers a trend toward delayed gastric emptying (GE) upon initiation of therapy with GLP-1RAs, which is a concern when considering preoperative gastric volumes and the risk for pulmonary aspiration (Hjerpsted et al., 2018).
- ❖ Of the available literature, many providers urge to focus on studies using the gold standard nuclear scintigraphy (rather than acetaminophen absorption test) (Weber, 2024).
- ❖ In June 2023, the American Society of Anesthesiologists (ASA) released a practice guideline on management of these patients, which was met with criticism due to the lack of robust supporting data (Joshi et al., 2023).
- ❖ Critical responses to the ASA emphasized taking an individualized approach, potential harm in withholding therapy for blood glucose control, and the possible benefit of a 24-hour liquid diet before procedures.
- ❖ While the data is limited (small, single-center studies), it is important that providers adopt a precautionary approach, assuming potential risks associated with GLP-1RA until further evidence establishes their safety profile definitively (Jones et al., 2023).
- ❖ For this reason, it is prudent that anesthesia providers remain up to date on this rapidly shifting area of research to maintain patient safety.

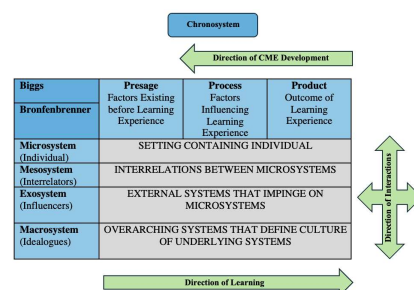
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## Methods

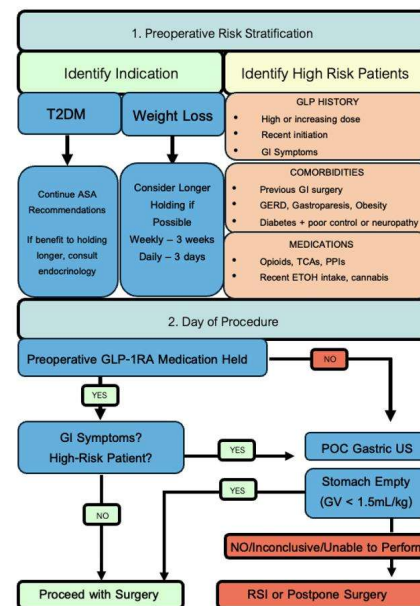
- ❖ **QI Project Design & Intervention:** The QI project employed a post-pre anonymous survey following an educational PowerPoint presentation.
- ❖ **Assessment Tool:** The assessment tool utilized a post-pre survey and the answers were compared using a Wilcoxon signed rank test for statistical significance in knowledge improvement.
- ❖ **Participant Involvement:** Thirteen participants, consisting of anesthesia providers at District Medical Group in Phoenix, Arizona, took the survey.

Figure 1.  
Unified Theoretical Framework for CME.



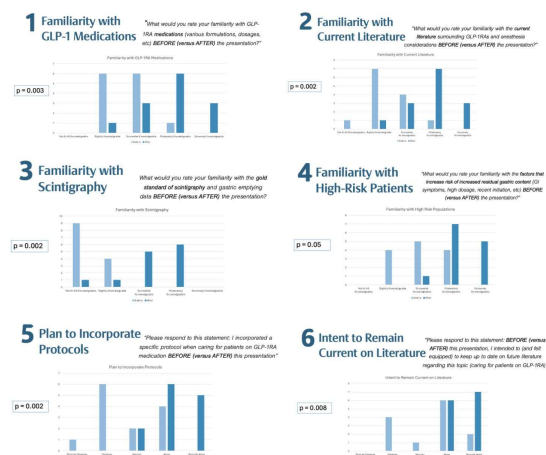
Adapted from Roux et al., 2021.

Figure 2.  
Clinical Practice Recommendations Card.



Adopted from Joshi, 2024.

## Results



## Discussion

- ❖ The results indicated that the educational intervention had a significant positive impact on anesthesia providers' knowledge across multiple domains.
- ❖ The most substantial change was observed in the providers' familiarity with the current literature, understanding of the gold standard of scintigraphy in research, and willingness to implement updated protocols into their practice (p = 0.002).
- ❖ These results suggest that the educational intervention was effective in improving current knowledge, clinical practice readiness, and competence to assess future literature as it emerges.

## Conclusion

- ❖ This DNP project successfully demonstrated that a targeted educational intervention can significantly improve anesthesia providers' knowledge and preparedness in managing patients on GLP-1RAs.
- ❖ With the growing use of these medications, it is crucial for providers to stay informed about emerging risks and to adopt best practices for preoperative management.
- ❖ Future projects should focus on expanding these educational initiatives, conducting further research, and developing standardized protocols for managing patients on GLP-1RAs across healthcare settings.