## Glucagon-Like Peptide-1 (GLP-1) Agonists may Warrant Revival of Preemptive Pharmacologic Prokinesis Preoperatively till Bring Your Own Ultrasonographic Stethoscope (BYoUS) Policy Becomes the Norm

Glucagon-like peptide-1 (GLP-1) agonists are here to stay to pharmacologically mitigate the increasing prevalence of diabetes mellitus and morbid obesity. [1] Just like the increased prevalence of anticoagulant use, antiplatelet use, antithrombotic use, and thrombolytic use led anesthesiologists to devise corresponding peri-anesthesia guidelines, anesthesiologists are finally catching up with peri-anesthesia guidelines to meet the eventuality of increased prevalence of GLP-1 agonist use. [2] Quantifying delayed gastric emptying in

preoperative patients is unpredictable, especially if guided only by the presence of fullness-nausea as symptoms and retching-vomiting as signs. Moreover, it is yet to be comparatively quantified whether delayed gastric emptying due to non-pharmacological gastroparesis had been as worse as delayed gastric emptying due to pharmacological gastroparesis assuming that patients with diabetes mellitus with non-quantified gastroparesis may have been receiving sedation with unprotected airways in the absence of specific guidelines advising

a potentially increasing need for general anesthesia with protected airways among patients with diabetes mellitus. Point-of-care gastric ultrasound comes in handy nowadays to quantify gastric volume and contents preoperatively. However, institutional ultrasound may not be readily available during high turnover and personal ultrasound may not be logistically allowable under institutional policies.<sup>[3]</sup> Moreover, it will be a learning curve for anesthesiologists before they can confidently recommend a change of anesthesia plan from sedation with unprotected airways to general anesthesia with protected airways based on their personal assessment of preoperative gastric volume and contents with point-of-care gastric ultrasound. [4] The questions about inherent risks of general anesthesia and increased costs with general anesthesia may come into play that may lead to either increased rescheduling of elective surgical procedures or post-hoc deeming of general anesthesia as unnecessary intervention, especially if concurrently scheduled esophagogastroduodenoscopy finds neither food nor fluid in stomach despite preoperative gastric ultrasound's interpretation to the contrary. Now, the question becomes whether, rather than awaiting evidence for interactions between GLP-1 agonists and prokinetic medications, preemptive pharmacologic prokinesis preoperatively may get revived to counter the residual effects of GLP-1 agonists. Only time will tell whether personal ultrasound just like personal stethoscope becomes the norm rather than the exception after Bring Your Own Device (BYOD) institutional policies evolve into Bring Your own Ultrasonographic Stethoscope (BYoUS) institutional policies so that patients' pathophysiological safety gets enhanced without compromising patients' privacy or providers' medicolegal protection during their exploration of new avenues for personal revenues.<sup>[5]</sup> Although the questions related to BYoUS policies may be moot when institution and provider are one and the same, they may come into play everywhere else thus deterring providers from investing into personal ultrasound until and unless proactive BYoUS policies are already in place at their institutions. For everyone else, the revival of preemptive pharmacologic prokinesis preoperatively may become the easy way out to save the day for anesthetized patients with suspected pharmacological or non-pharmacological gastroparesis and for anesthesia providers not confidently interpreting gastric ultrasounds to convincingly change the plan of anesthesia from sedation with unprotected airways to general anesthesia with protected airways even after reactive BYoUS policies have become the norm rather than the exception at their institutions.

## Financial support and sponsorship

## Conflicts of interest

There are no conflicts of interest.

Deepak Gupta

Department of Anesthesiology, Wayne State University/Detroit Medical Center, Detroit, Michigan, USA

Address for correspondence: Dr. Deepak Gupta, Clinical Assistant Professor, Anesthesiology, Wayne State University/Detroit Medical Center, Box No 162, 3990 John R, Detroit, MI 48201, United States. E-mail: dgupta@med.wayne.edu

**Submitted:** 29-Aug-2023 **Revised:** 07-Sep-2023 **Accepted:** 20-Sep-2023 **Published:** 12-Jan-2024

## REFERENCES

- Collins L, Costello RA. Glucagon-like peptide-1 receptor agonists. StatPearls. Treasure Island (FL): StatPearls Publishing; 2023. Available from: https://www.ncbi.nlm.nih.gov/books/NBK551568/. [Last accessed on 2023 Jan 13].
- American Society of Anesthesiologists Consensus-Based Guidance on Preoperative Management of Patients (Adults and Children) on Glucagon-Like Peptide-1 (GLP-1) Receptor Agonists. Available from: https://www.asahq.org/about-asa/newsroom/newsreleases/2023/06/american-society-of-anesthesiologists-consensusbased-guidance-on-preoperative. [Last accessed on 2023 Aug 29].
- Wani TA, Mendoza A, Gray K. Hospital bring-your-own-device security challenges and solutions: Systematic review of gray literature. JMIR Mhealth Uhealth 2020;8:e18175.
- Flynn DN, Doyal A, Schoenherr JW. Gastric ultrasound. StatPearls. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK580524/. [Last accessed on 2023 Feb 20].
- Hughes D, Corrado MM, Mynatt I, Prats M, Royall NA, Boulger C, Bahner DP. Billing I-AIM: A novel framework for ultrasound billing. Ultrasound J 2020;12:8.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Access this article online	
Quick Response Code:	Website:
	https://journals.lww.com/aoca
	DOI: 10.4103/aca.aca_137_23

**How to cite this article:** Gupta D. Glucagon-Like peptide-1 (GLP-1) agonists may warrant revival of preemptive pharmacologic prokinesis preoperatively till bring your own ultrasonographic stethoscope (BYoUS) policy becomes the norm. Ann Card Anaesth 2024:27:91-2.

© 2024 Annals of Cardiac Anaesthesia | Published by Wolters Kluwer - Medknow