

Bedside ultrasound for gastric content assessment and Peripheral IV Access

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Point of Care Ultrasound (US), is the term we use when a clinician uses ultrasound “for diagnostic or procedural guidance” in a patient encounter to help guide the evaluation and management of the patient. Two of such procedures are Gastric US and Peripheral IV Guidance.

Pulmonary aspiration is a significant cause of morbidity and mortality related to anesthesia. Determining gastric content at the time of anesthetic induction despite appropriate fasting intervals may be challenging in certain populations like critical ill patients, gastroparesis, end stage renal disease, liver disease, neuromuscular disorders and high opioid usage. Gastric US has the potential to shift the current paradigm of aspiration risk assessment.

The use of ultrasound in procedures has also revolutionized the way we practice. Its use increases safety by allowing real-time visualization of patient anatomy, hence decreasing complications and improving patient care. The goal will be to discuss the use of ultrasound in determining gastric content pre-operative and its use in peripheral Intravenous (IV) access.

Learning Objective:

- Participants will learn the views to evaluate gastric content as well as anatomic landmarks.
- Participants will learn the quantitative and semi-quantitative methods for ultrasound evaluation of gastric volume.
- Participants will learn basic approach for ultrasound guided peripheral IV.

References:

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4. Perlas A¹, Mitsakakis N, Validation of a Mathematical Model for Ultrasound Assessment of Gastric Volume by Gastroscopic Examination. *Anesth Analg.* 2013 Feb;116(2):357-63.