

<u>UPHS Multi-Disciplinary Guideline for Durable Enteral Access</u> <u>in Critically III COVID19 Patients</u>

Introduction:

The novel CoronaVirus Disease 2019 (COVID19) is leading to prolonged intensive care needs for a subset of severely affected patients creating several challenges related to long-term care. Concerns about disease transmission and the unfamiliar course of the virus challenge current intensive care unit (ICU) protocols including the decision timelines relating to durable enteral access and tracheostomy. Review of the literature revealed no published investigations or recommendations for durable enteral access in previous or current respiratory pathogen epidemics, including the current COVID19 pandemic. A multi-disciplinary team across the health system developed this algorithm considering the unique challenges of this disease.

Durable enteral access options and considerations in COVID19-patients:

Available options for durable access within the UPHS include bridled small-bore nasogastric tube (sb-NGT) placed by credentialed advanced practice providers (APP) or surgeons, percutaneous endoscopic gastrostomy tubes (PEG) placed by surgery or gastroenterology (GI), percutaneous gastrostomy tube placed by Interventional Radiology (IR), and laparoscopic or open enteral access performed by the surgical service. All approaches should prioritize patient safety, mitigate personnel exposure risk and optimize institution resource utilization.

Key Recommendations:

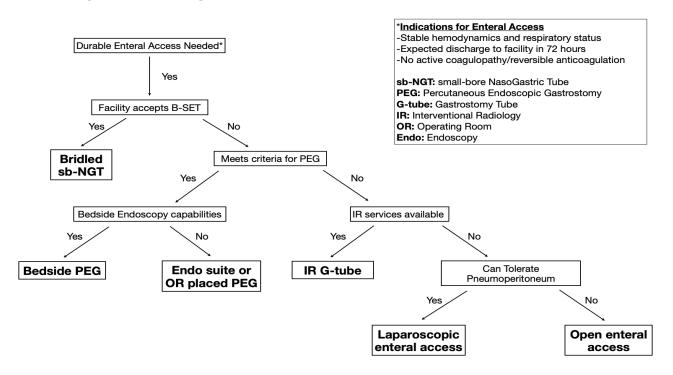
Durable enteral access should be performed close to the date of transfer with a bridled sb-NGT if acceptable for the receiving facility. For endoscopic, percutaneous, laparoscopic or open procedures as described, the procedure should be performed in a negative pressure or COVID-designated room, if available. Retesting for infectivity or antibodies prior to an elective procedure will follow evolving UPHS COVID19 testing guidelines.



Table 1. Options and Considerations for Durable Enteral Access in COVID19 Patients

	Bridled sb-NGT	PEG	IR Access	Laparoscopic Access	Open Access
Patient Risk	Lowest	Low	Low	Intermediate	Intermediate
Minimum Personnel	1 Credentialed provider 2 Radiology Technician	1 Surgeon or Gastroenterologis t 2 Assistant	1 Radiologist 2 Assistant	1 Surgeon 2 Assistant 3 Circulating Nurse 4 Anesthesiologist 5 Scrub technologist	1 Surgeon 2 Assistant 3 Circulating Nurse 4 Anesthesiologist 5 Scrub technologist
Exposure risk	Low	High	Possibly increased	Unknown Possibly increased	Unknown Possibly increased
Equipment	Small-bore feeding tube; Bridle Kit; Fluoroscopy or Portable X-ray	PEG Kit; Endoscopy Tower	Gastrostomy Kit	Laparoscopic Towers; Laparoscopic Instruments	Major Abdominal Tray
Location	Bedside	Bedside Operating Room Endoscopy suite	IR suite	Operating Room	Operating Room

Figure 1. UPHS Algorithm for Durable Enteral Access in COVID19 Patients





GI Working Group Members:

Fieber, J.H.¹, DePaolo, J.¹, Tong, J.K.¹, Braslow, B.M.², Ginsberg, G.G.³, Dempsey, D.T.⁴, Pascual, J.L.², Soriano, I.S.⁴

¹Department of Surgery, Hospital of the University of Pennsylvania ²Division of Traumatology & Critical Care, Department of Surgery ³Division of Gastroenterology, Department of Medicine ⁴Division of Gastrointestinal Surgery, Department of Surgery University of Pennsylvania Health System