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American Neurogastroenterology and Motility Society (ANMS) Task Force Recommendations
for Resumption of Motility Laboratory Operations During the COVID-19 Pandemic

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INTRODUCTION

In December 2019, several cases of pneumonia presented in Wuhan, China, derived from a severe acute respiratory syndrome (SARS) related coronavirus (SARS-CoV-2), named coronavirus disease 2019 (COVID-19) by the World Health Organization in February 2020¹. COVID-19 has subsequently been declared a pandemic. According to the Centers for Disease Control and Prevention (CDC), as of May 15, the United States has greater than 1.4 million confirmed cases and 85,000 deaths². Globally, a May 15 report from the World Health Organization (WHO) stated that approximately 4.3 million COVID-19 cases have been identified, and more than 297,000 deaths have occurred related to this infection³. COVID-19 symptoms include fever, cough, fatigue, pneumonia, and loss of taste. However, the prevalence of gastrointestinal symptoms such as nausea, vomiting, and diarrhea in COVID-19 confirmed cases have been significant and fecal viral excretion may persist for several weeks after resolution of lung illness⁴.

During the COVID-19 pandemic, motility laboratories have temporary shut-down, and this adjournment provided opportunities for protecting staff and patients from spreading COVID-19. As of 2019, the United States has more than 120 motility laboratories⁵. Diagnostic procedures performed in motility laboratories provide evidence for appropriate intervention for gastrointestinal symptoms not explained by structural or mucosal disease. The ANMS organized a Task Force for developing guidance strategies regarding re-opening of motility laboratories. This document describes how to stratify urgency of motility physiologic procedures, screen prior to the procedures, optimize personal protective equipment (PPE) utilization, clean and prepare the motility laboratory space during the COVID-19 pandemic. Prioritizing procedures should

take into consideration the impact of symptoms on nutrition, need for hospitalization and impact on quality of life and well as the role of testing for preoperative evaluation prior to invasive procedures, including myotomy, lung transplant, and colectomy.

The ANMS Task Force recommendations for reactivation of motility laboratory operations are based on social guidelines for endoscopic procedures⁶, taking into consideration available evidence as well as expert consensus (Box). However, we encourage all centers and health care providers to consult with local and state public health departments, and their institution when implementing these recommendations.

The ANMS Task Force recommends the following:

1. Gastrointestinal motility procedures should be performed in motility laboratories adhering to the recommendations and PPE measures described below in order to protect patients, ancillary staff and motility allied health professionals.
2. If available, all patients scheduled for motility procedures should complete a COVID-19 test preferably within 48 hours prior to their procedure, as recommended by other gastrointestinal societies¹.
 - a. COVID-19 test results must be documented prior to performing procedures.
 - b. If procedures are to be performed without a COVID-19 test, full personal protective equipment (PPE) use is recommended, along with all social distancing and infection control measures.
3. Since patients with suspected motility disorders require multiple procedures, sequential scheduling of procedures should be considered to minimize need for repeat COVID-19 testing.
4. The strategies for and timing of procedure(s) should be adapted taking into consideration local institutional standards, with the provision for heavy screening without testing in low prevalence areas.
5. If tested positive for COVID-19, subsequent negative tests, typically on two separate occasions is required prior to scheduling a motility procedure (timing is variable).
6. Specific recommendations for each motility procedure (example, esophageal manometry, anorectal manometry or biofeedback therapy) that include triaging, indications, PPE use and alternatives for motility procedures are detailed below in the document.

PRE-PROCEDURE SCREENING

Gastrointestinal motility procedures should only be performed in motility laboratories that have capability of adhering to the Task Force recommendations and PPE measures described in order to protect patients, ancillary staff and motility allied health professionals. Whenever possible, patients scheduled for motility procedures should undergo COVID-19 testing within 48 hours of the procedure, similar to recommendations for endoscopy as recommended by gastroenterology societies⁶. When multiple motility procedures are indicated, these should be scheduled sequentially to obviate the need for repeated COVID-19 testing. Test results should be documented in the patient's record. If tested positive for COVID-19, subsequent negative tests, typically on two separate occasions, is required prior to scheduling a motility procedure (timing is variable). If institutional and local health authorities recommend against routine COVID-19 testing prior to routine procedures, pre-procedure symptom screening is imperative, and full PPE use are recommended in addition to social distancing and infection control measures.

Upon arriving at the healthcare facility for the motility laboratory procedure, we endorse screening for pertinent COVID-19 symptoms and checking body temperature, even in patients with prior negative COVID-19 testing. Patients who screen symptomatic should be rescheduled until asymptomatic and re-tested for COVID-19, following similar guidelines used for endoscopy and outpatient clinics⁶. Proper PPE should be worn by individuals performing motility laboratory procedures. Table 1 provides recommendations for proper motility laboratory PPE requirements. These recommendations are derived from expert opinion and gastroenterology society guidelines for endoscopy procedures⁶. Proper donning and doffing of PPE should be practiced to limit spread of potential air-droplets⁷.

PROCEDURE ROOM SET UP

Adequate spacing is recommended in waiting areas and within motility procedure rooms. Strict adherence to scheduled times is recommended to avoid congregation of patients and relatives in the waiting areas. This may require patients to wait in their cars rather than at the facility if delays are expected, with two-way communication through mobile phones. Only the patient should be brought into the procedure room to limit contact between individuals. Adequate time should be allowed between procedures to allow for delays, and extra time for terminal cleaning of the procedure areas between procedures.

Consideration can be given for filtering the air within the motility procedure room in between each patient whenever possible, as per local institutional standards. If available, this could include High-Efficiency Particulate Air (HEPA) filters for prevention of airborne infections⁸. The required time for HEPA filtration is adjusted by the number of exchanges within the specific procedure room. Where HEPA filtration is not available, institutional infection control measures should be followed.

Table 1. Recommended Motility Laboratory Personal Protective Equipment (PPE) to Safely Perform a Motility Laboratory Procedure

Motility Laboratory Procedure	PPE Recommendations
Esophageal Physiologic Procedures	N95 mask, double gloves, face shield (and/or alternate protective eye wear), and gown
Antroduodenal Manometry	N95 mask, double gloves, face shield, (and/or alternate protective eye wear), and gown
Colon Manometry	N95 mask, double gloves, face shield (and/or alternate protective eye wear), and gown

Wireless Motility Capsule	N95 mask, or surgical mask with a face shield, gloves, face shield (and/or alternate protective eye wear), and gown
Gastric Emptying Breath Test	N95 mask, gloves, face shield (and/or alternate protective eye wear), and gown
Anorectal Structure and Function Testing Biofeedback Therapy	N95 mask or surgical mask with face shield (and/or alternate protective eye wear), double gloves, and gown
Hydrogen Breath Testing	N95 mask, gloves, face shield (and/or alternate protective eye wear), and gown

ESOPHAGEAL PHYSIOLOGIC TESTING

Esophageal physiologic procedures, including high resolution manometry (HRM), pH- and pH-impedance monitoring are typically elective procedures performed in an outpatient motility laboratory by trained allied health professional for non-life-threatening indications. Accepted indications for testing have not been implemented during the pandemic out of an abundance of caution^{9, 10}. Although infrequent, there are limited urgent indications for esophageal HRM that deserve attention (Table 2), particularly prior to definitive management of achalasia and obstructive motor disorders¹¹. However, alternatives exist, particularly barium radiography and functional lumen imaging probe (FLIP) to confirm the diagnosis of achalasia, and placement of enteral feeding tubes to maintain nutrition while awaiting definitive management. Hiatus hernia repair and anti-reflux surgery is rarely emergent, with the notable exception of gastric volvulus, where surgical repair and partial fundoplication can be performed without HRM assessment of esophageal peristaltic performance. Wireless prolonged pH monitoring can be performed if endoscopy is planned and assessment of reflux burden is essential, but this is not anticipated to be an urgent or semi-urgent requirement, except in very rare instances.

During the pandemic, some semi-urgent procedures have evolved into urgent procedures due to prolonged periods of compromised nutrition and the need for time-sensitive management. Further, motility will need to balance the back-log of patients that have been cancelled or rescheduled with the urgency of the indication as hospitals resume semi-elective and elective procedures. Table 2, adapted from a recent publication on the topic¹¹, provides guidance on indications and clinical qualifiers that elevate the typically elective esophageal physiologic procedures to semi-urgent or emergent status during the COVID-19 crisis. Additionally, this table provides a framework that can be used during each phase of the pandemic, including active shut-down and recovery as various states and regions of the US are in different stages of recovery.

Table 2. Triaging Esophageal Physiologic Procedures

	Clinical Qualifiers	Alternative approach if procedure is not available
Urgent procedures (<2 weeks)		
HRM in suspected achalasia with severe symptoms	Significant dysphagia with inability to maintain hydration and nutrition.	EGD with endotracheal intubation and FLIP for diagnosis. Barium esophagography for diagnosis. EGD with endotracheal intubation and Dobhoff tube or gastrostomy tube placement if treatment is delayed.
HRM prior to achalasia management	Plans for urgent management (PD or myotomy)	EGD with endotracheal intubation and FLIP followed by PD. EGD with endotracheal intubation and FLIP and botulinum toxin injection.

		Barium esophagography for diagnosis (if no prior confirmation of diagnosis) and myotomy referral.
HRM prior to hernia surgery	Large hiatus hernia, risk for aspiration or volvulus. Inability to maintain hydration and nutrition.	Barium esophagography for diagnosis. *Evidence of ischemia-emergent surgery
Semi-urgent procedures (2-4 weeks)		
HRM	Dysphagia with weight loss (Transition to an urgent HRM procedure if nutrition is compromised over 2-4 weeks) Frequent/daily symptoms Impacting quality of life Negative endoscopy/barium	Empiric management with PPI, soft/liquid diet
HRM and Reflux testing	Pulmonary status Time sensitive procedures for Lung Transplant evaluation.	Determined by collaboration between pulmonary, surgery and gastroenterology
Elective procedures (> weeks)		
HRM and Reflux Testing	Dysphagia/Chest Pain without weight loss Frequent/daily symptoms Impacting quality of life Negative endoscopy/barium	Empiric management with PPI, soft/liquid diet, esophageal muscle relaxants (nitrates or calcium channel blockers), Neuromodulators
HRM/reflux monitoring for reflux symptoms prior to antireflux surgery or with incomplete PPI response	Elective, can be postponed	Medical reflux management, neuromodulators, lifestyle measures
HRM in behavioral symptoms/suspected supragastric belching/rumination	Elective, can be postponed	Remote cognitive and behavioural therapy, diaphragmatic breathing

HRM: high resolution manometry; FLIP: functional lumen imaging probe; PD: pneumatic dilation; PPI: proton pump inhibitor

STOMACH, SMALL INTESTINE, AND COLON

Various diagnostic procedures are used to evaluate motor function in sections of the gut from stomach to colon. Two FDA-approved diagnostic modalities, wireless motility capsule (WMC) and gastric emptying breath testing (GEBT), can be performed in lieu of gastric emptying scintigraphy in patients with symptoms suspicious for gastroparesis¹². When performed in patients with suspected gastroparesis and/or slow transit constipation, WMC generates information on both whole gut and regional gut transit¹³. This procedure does not generate aerosols unless the patient coughs or chokes while swallowing the capsule. Therefore, as long as the operator performing the procedure can socially distance from the patient during capsule and meal ingestion while wearing adequate PPE, this procedure should be of low risk to the operator.

Although not as widely available as scintigraphy, GEBT provides a measure of gastric emptying by evaluating CO₂ excretion in the breath after a ¹³C-labeled *S platensis* enriched meal is ingested¹⁴. Since breath samples are collected, the test generates aerosols, and could be of risk to the operator without adequate protective measures and PPE. In the US, GEBT has been predominantly utilized for research and for therapeutic drug trials. Since elective non-COVID research is currently halted, and since GEBT carries aerosol-related risks, this will likely only be reinstated in late phases of resumption of motility laboratory operations in most institutions.

Patients with gastric stimulators implanted for management of severe gastroparesis through the FDA's Humanitarian Device Exemption program will need to be seen for symptom and device monitoring in outpatient clinics. For patients who present for gastric stimulator interrogation, operators and treating physicians will need to follow local guidelines for PPE similar to other outpatient encounters, which could include mask, face shield, head cover, gloves,

and gown, when adjustments are made to their device.

Two advanced motility procedures performed in tertiary care centers consist of antroduodenal manometry (ADM) to evaluate chronic intestinal pseudo-obstruction (CIPO), and colonic manometry to evaluate neurogenic bowel and severe constipation refractory to medication¹⁵. Both procedures are performed predominantly in the pediatric setting, and not routinely in adults.

For the most part, ADM is an elective procedure, but could be semi-urgent in sick patients with suspected small bowel dysmotility. ADM is also recommended for evaluation of small bowel dysmotility in severe gastroparesis to triage decision-making prior to enteral feeding versus total parenteral nutrition, and in patients with primary or secondary CIPO from either neuropathic or myopathic disease prior to multiorgan transplantation. ADM involves placement of a manometry catheter using fluoroscopy or EGD, and therefore is an aerosol-generating procedure. Therefore, PPE, including N95 mask or equivalent are needed for all staff during placement and removal of the ADM catheter. After placement of the catheter, motility recordings should be performed in a private area that minimizes broad aerosolization. Patients should wear a surgical mask whenever possible. COVID-19 testing prior to ADM is important, since this procedure is typically performed in an ambulatory setting, sometimes involving admission to an observation unit for prolonged monitoring.

Colonic manometry is performed for evaluation of neurogenic bowel, and in severe constipation to determine presence of colonic dysmotility prior to surgical management, and triaging of decision making between medical options and partial/subtotal colectomy. In children, it is also performed prior to considering Malone antegrade continence enema (MACE) as

treatment for chronic constipation¹⁶. Colonic manometry is performed via colonoscopy, and since fecal shedding of the coronavirus has been reported⁷, pre-procedure COVID-19 testing of the patient is prudent, and PPE requirements will be similar to society recommendations for colonoscopy⁶.

Table 3. Triaging Motility Procedures Pertaining to the Stomach, Small Intestine, and Colon

	Clinical Qualifiers	Alternative approach if procedure is not available
Urgent (<2 weeks)		
None	There are no urgent indications for antroduodenal and colonic manometry	None
Semi-Urgent (2-4 weeks)		
Antroduodenal manometry	Malnutrition in patient with gastroparesis, weight loss, severe distension, pseudoobstruction, preop for multi-visceral small bowel transplantation	CT or MRI enterography Small bowel follow through Whole gut scintigraphy
Colonic Manometry	Severe constipation Suspected neurogenic bowel	Wireless motility capsule (in adults only) Radio-opaque marker study with KUB x-ray Colonic/Whole gut scintigraphy
Elective (>4 weeks)		
Wireless motility capsule (WMC)	Significant constipation not optimized with medical management, nausea and vomiting with negative endoscopy	Prokinetics given empirically to treat gastroparesis, Optimization of laxatives and antiemetics. Whole gut scintigraphy Gastric emptying study plus radiopaque marker studies
Gastric emptying breath testing	Nausea /vomiting with upper abdominal pain (negative upper endoscopy)	WMC or gastric emptying scintigraphy

ANORECTAL FUNCTION TESTING AND BIO-FEEDBACK THERAPY

The anorectal physiologic procedures are routinely performed for the evaluation of chronic anorectal diseases including constipation, pelvic floor dysfunction, fecal incontinence pre or post-surgical evaluations and levator ani syndrome¹⁷. Therefore, indications for these tests are typically non-urgent. Additionally, pelvic floor retraining and biofeedback therapy are the only evidence-based treatments for anorectal disorders and are generally considered non-urgent, although these disorders carry significant morbidity and negatively impact quality of life¹⁷. Further, many of these disorders remain undiagnosed for years, further adding to the burden of ill health and overall health care utilization. We propose measures to adequately care for patients without COVID-19 undergoing anorectal physiologic procedures and pelvic biofeedback therapy programs, and steps for resuming these operations.

Scheduling of patients with anorectal and pelvic floor disorders should be based on the indications for anorectal physiologic procedures and pelvic biofeedback therapy programs. Resources should be prioritized towards patients in whom anorectal manometry and balloon expulsion testing will change management strategy and/or triage decision-making for surgery. This is particularly important as most facilities anticipate reduced access to motility procedures and pelvic biofeedback programs, mostly dictated by the need for extra measures taken to mitigate the risk of spread of COVID-19.

Anorectal physiologic procedures, pelvic floor retraining and biofeedback are considered “medium risk” for virus transmission. SARS-CoV-2 shedding in the stool has been reported in 50-60% of patients, and may take as long as 3-6 weeks to clear after respiratory symptoms subside¹⁸. Propensity for fecal-oral transmission remains unclear²⁶, although SARS-CoV-2 may spread through the aerosolization of feces after flushing. Risk of aerosolization during the maneuvers during testing such as cough or forceful breathing is low but can be mitigated by both

the patient and the operator wearing masks, and the operator wearing a face shield, gown, hair covering and gloves.

Table 4. Triaging Patients for Anorectal Function Testing and Procedures

	Clinical Qualifiers	Alternative approach if procedure is not available
Urgent (<2 weeks)		
None	There are no urgent indications for anorectal procedures	None
Semi-Urgent (2-4 weeks)		
Prior to surgical management	Plan for urgent surgery	Defecography
Anorectal Manometry and Balloon Expulsion Testing Endoanal Ultrasound	Fecal impaction Severe constipation and inability to pass stool	Large volumes enemas, Hypaque enema, Endoscopic disimpaction
Anorectal Manometry	Anorectal pain Significant pelvic/rectal pain, Negative impact on quality of life	Medical management
Elective (>4 weeks)		
Anorectal Manometry and Balloon Expulsion Test, Pelvic floor retraining and Biofeedback Therapy	Chronic constipation Significant constipation not optimized with medical management, Negative impact on quality of life	Lifestyle modifications, Medical laxative management, Squatting stool, Diaphragmatic breathing
Anorectal Manometry Endoanal Ultrasound, TAMS or Neuropathy or EMG Test, Pelvic floor retraining and Biofeedback Therapy	Fecal incontinence Significant incontinence of stool not optimized with fiber and medical management, Negative impact on quality of life	Lifestyle modification, Medical management to optimize stool consistency, Kegel Exercises
Anorectal Manometry, Pelvic floor retraining and Biofeedback Therapy	Anorectal Pain Significant pain suggestive of levator ani syndrome	Conservative medical management
Anorectal Manometry and Balloon Expulsion Test (Pre or Post-pouch surgery Or Colectomy surgery)	Patients who have undergone pouch surgery requiring re-anastomosis or those being considered for pouch surgery or severe constipation and consideration of colectomy	Conservative medical management

	and ileostomy versus ileo-rectal anastomosis	
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TAMS= Translumbosacral anorectal magnetic stimulation test.

HYDROGEN BREATH TESTING

Breath testing can be a valuable adjunct to identify patients with small intestinal bacterial overgrowth (SIBO) or carbohydrate malabsorption. For SIBO, breath tests using glucose or lactulose are commonly used. Each of these tests has its strengths and weaknesses. Most agree that lactulose is likely to be the more sensitive of the two options, but glucose is likely to be the more specific testing substrate¹⁹. Breath testing can also be used to identify patients with lactose, fructose or sucrose malabsorption. Protocols for conducting breath tests can be found in the Rome consensus document²⁰ and the North American Consensus document²¹. For the most part, breath tests should be considered elective procedures. There are several alternative means by which to diagnose SIBO or carbohydrate malabsorption (see table). SIBO can be diagnosed with small bowel aspiration for quantitative culture¹⁹. Patients with a high pretest probability of SIBO such as those with scleroderma, diabetes with autonomic neuropathy, gastric or small bowel surgery, radiation enteritis, to name a few, may not need testing before offering a course of antibiotics. Disaccharidase deficiency (lactase, sucrase isomaltase) can be identified with small bowel biopsy and quantitative disaccharidase enzyme assay²². Oral enzyme replacement therapy is available for lactase and sucrase. A clinician can attempt a trial with substrate (sucrose, lactose, fructose) restriction or challenge. There are also blood tests for gene variants which identify patients with congenital forms of hypolactasia or sucrase-isomaltase deficiency. As breath testing is considered an aerosol generating procedure, patients should have a negative COVID-19 test before their procedure. Ideally, patients with a positive test should be rescheduled to a later date. In circumstances where patients do not undergo pre-procedure

COVID testing, the patient should be delayed allowing for COVID testing or managed by staff with full personal protective equipment including an N95 mask. At home breath testing, offered by several commercial vendors, is an alternative to traditional laboratory-based breath testing. This option may be attractive to practices which do not otherwise perform breath testing or in circumstances where COVID testing is not readily available or in which a patient resides far from their physician’s facilities.

Table 5. Triaging Patients Needing Hydrogen Breath Testing

	Clinical Qualifiers	Alternative approach if procedure is not available
Urgent (< 2weeks)	There are no urgent indications for hydrogen breath testing	
None		
Semi-Urgent (2-4 weeks)		
None	There are no semi-urgent indications for hydrogen breath testing	
Elective (>4 weeks)		
Breath testing for SIBO (glucose, lactulose) Breath testing for CHO malabsorption (lactose, fructose, sucrose)	With rare exception, breath tests are elective.	SIBO – empiric trial of antibiotics, small bowel aspiration for quantitative culture CHO malabsorption: Disaccharidase deficiencies (lactose, sucrase isomaltase) can be diagnosed with small bowel biopsy and disaccharidase assay. Trial of an exclusion diet, substrate challenge, or enzyme replacement therapy. Blood testing for gene variants can identify patients with congenital forms of hypolactasia or sucrase-isomaltase deficiency

PEDIATRIC MOTILITY TESTING

Pediatric motility procedures includes mainly 5 types of physiologic tests: 1) Esophageal physiologic procedures, including esophageal manometry (water perfused and high resolution manometry (HRM) with and without impedance, pH and pH impedance monitoring systems, 2) Antroduodenal manometry, 3) Colonic manometry, 4) Anorectal manometry, and 5) Hydrogen and Lactose breath tests. These procedures are typically considered elective and performed in an outpatient motility laboratory by allied health professionals and physician motility experts. Alternatives include radiological studies such as esophagram, upper gastrointestinal series, small bowel follow through and barium enema. Urgent/emergent indications are rare for these procedures in pediatrics, other than for achalasia and for the rare patient who needs assessment of gut motility prior to surgical treatment. For institutions that have FLIP available, this can be an alternative for confirmation of achalasia, and precautions are the same as for upper endoscopy⁶. The risks that each of these procedures carry, and the precautions needed are the same as in the adult setting.

Table 6. Triaging Pediatric Patients for Motility Procedures

	Clinical Qualifiers	Alternative approach if procedure is not available
Urgent (<2 weeks)		
Esophageal high resolution manometry/ impedance in suspected Achalasia	Dysphagia, chest pain, vomiting, weight loss, inability to maintain hydration	Esophagram, EGD and FLIP for diagnosis, pneumatic balloon dilatation for achalasia treatment
Semi-Urgent (2-4 weeks)		A
Esophageal high resolution manometry/impedance in suspected Achalasia	Dysphagia, chest pain, vomiting but WITHOUT weight loss, and able to maintain hydration and nutrition	Esophagram, EGD and FLIP for diagnosis, pneumatic balloon dilation for treatment
Antroduodenal manometry	Chronic vomiting and nausea, abdominal distention,	Upper GI series with small bowel follow through, CT

	abdominal pain, pseudo-obstruction, weight loss, inability to maintain nutrition or hydration, inpatient, TPN dependent, possible surgical intervention needed	scan or MR enterography, whole gut scintigraphy, bowel rest, NG suction, empiric treatment for SIBO, prokinetics, enteral nutrition, TPN
Elective (>4 weeks)		
Esophageal HRM/pH impedance	Dysphagia, regurgitation, chest pain, supragastric belching WITHOUT weight loss	Esophagram, Upper Gastrointestinal series, empiric treatment with PPIs, prokinetics, soft mechanical/liquid diet
Antroduodenal manometry	Chronic vomiting and nausea, abdominal distention, abdominal pain, WITHOUT weight loss, able to maintain hydration and nutrition, not TPN dependent and not a surgical patient	Upper Gastrointestinal series with small bowel follow through, CT scan, MRI enterography, whole gut scintigraphy, empiric treatment for SIBO, empiric treatment with PPI, prokinetics, enteral feeds
Colonic manometry	Chronic constipation, abdominal distention and dilated colon	Barium enema, treatment with stimulant laxatives and stool softeners, transanal irrigations
Anorectal manometry	Chronic constipation, fecal incontinence, abdominal distention, pelvic floor dyssynergia	Barium enema, treatment with stimulant laxatives and stool softeners, transanal irrigations, pelvic floor physical therapy, behavior modification and counselling
Breath tests	Abdominal bloating and distention, abdominal pain, suspected SIBO, suspected lactose intolerance	Empiric treatment with lactose free diet. Empiric treatment with antibiotics for SIBO

EGD: Esophagogastroduodenoscopy; FLIP: Endo FLIP; SIBO; Small bowel bacterial overgrowth; NG: Naso-gastric; UGI series: Upper Gastrointestinal series

BILLING FOR MOTILITY TESTING RELATIVE TO COVID-19

During the COVID-19 pandemic, we anticipate that many gastrointestinal physiology and motility laboratories will face significant financial challenges. We recommend that physicians involved in leadership of motility laboratories become familiar with methods to optimize

reimbursement for the procedures performed. A recent review provided a comprehensive outline of CPT codes for gastrointestinal physiology and motility procedures in the year 2020, along with important reimbursement suggestions⁵. Additionally, the ANMS commissioned a billing and coding update specific to esophageal function testing in 2018²³. These are useful resources for motility laboratories.

The Centers for Medicare & Medicaid Services (CMS) has greatly expanded the coverage for telehealth, including audio-only evaluations amid this pandemic²⁴. We recommend that clinicians managing gastrointestinal motility disorders and leaders of motility laboratories remain current with evolving telehealth opportunities across insurers. During the upcoming months, gastrointestinal physiology and motility procedures may be postponed, or alternative tests may be recommended, which will often require detailed discussion with each patient regarding options and ongoing management. Specifically, for hydrogen and methane breath testing, practitioners may opt to pursue home testing for their patients, which could shift motility laboratory revenue to the entity reporting home testing results. A telehealth visit explaining the appropriate methods for home breath testing, interpretation of testing, and explaining management recommendations may provide an opportunity for the motility laboratory to engage with the patient. Overall, all providers should continue to interact with their patients and follow safety guidelines when performing motility-related procedures.

CONCLUSION

As health care professionals return to their medical offices and resume operations, rescheduling of patients for elective gastrointestinal motility procedures is being considered, and safety of staff, patients and family members is of paramount importance. We present a

framework based on stratification of motility procedure indications to urgent, semi-urgent and elective, using clinical qualifiers and alternatives to the primary procedure to make appropriate testing decisions. The re-activation timeline will need to be based on individual institutional policies. The ANMS task force acknowledges that these expert recommendations may need to be modified as the COVID-19 pandemic evolves, and new data becomes available once motility laboratories reopen. Careful monitoring of resurgence will likely also impact future policies and recommendations. Evolving information may result in either loosening or tightening of re-activation measures, depending on whether peaks or surges of COVID-19 cases re-occur. Recommendations may also change depending on exposure risks in individual institutions and regions, and further monitoring of outcome of patients presenting for motility laboratory procedures.

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