DOI: 10.1111/nmo.13969

### LETTER TO THE EDITOR

## Neurogastroenterology & Motility NGM WILEY

# Response to the Letter: How do we reopen our motility laboratory safely and efficiently?

We appreciate the insightful comments from Drs. Chang, Berg, and Rezaie regarding our Motility/GI Physiology Laboratory re-entry recommendations amidst the COVID-19 pandemic. The comments consist of three themes: differences in COVID-19 testing for aerosolized vs non-aerosolized tests, the high false-negative rate for COVID-19 testing, and logistical timing issues between COVID-19 results and scheduling Motility/GI Physiology Laboratory tests.

The recommendations for safely and efficiently reopening Motility/GI Physiology Laboratories were rooted in numerous endoscopic societal guidelines as both esophageal manometry and catheter-based pH testing have potential for aerosolization similar to upper endoscopy. These Motility/GI Physiology tests offer the highest probability for spreading COVID-19 to Allied Health Professionals who perform these tests, and not to physicians directly as the case may be with endoscopic procedures. As such, we based our recommendations from the Allied Health Professional (nurses, technologists, and medical assistants) viewpoint rather than physicians. Often, safety and efficiency guidelines are constructed at the physician and administrator level rather than the perspective of the Motility/GI Physiology Allied Health Professional. This is particularly relevant here, as the Allied Health Professional is the healthcare provider at the front line for Motility/GI Physiology tests.

The diversity of Motility/GI Physiology Laboratory testing offers a challenge for safely reopening during the COVID-19 pandemic. Available data suggest that up to 55% of patients infected with COVID-19 have SARS-CoV-2 in their stool.<sup>1-3</sup> We agree with the premise that the probability of spreading or contracting COVID-19 via stool or flatulence is unknown and probably small. However, anorectal manometry, balloon expulsion testing, and pelvic floor biofeedback patients have the propensity to discharge air particles (aerosolized and/or flatulence) during simulated defecation maneuvers, especially when increasing abdominal pressure during the Valsalva or cough maneuvers. The Asian Neurogastroenterology and Motility Association published their Motility/GI Physiology Laboratory COVID-19 reopen position statement with seven of the 11 experts indicating both Esophageal and Anorectal Manometry procedures as high risk for spreading air particles during the procedures.<sup>4</sup> Therefore, our task force concluded by consensus that Motility/GI Physiology Laboratory leadership must implement mandatory PPE requirements as safety measures and educate Allied Health Professionals to assess patient symptoms and temperature before any Motility/GI Physiology procedure. These recommendations are becoming more important as COVID-19 is surging in many parts of the US.

As Motility/GI Physiology Laboratory procedures may be categorized as urgent, semi-urgent, or elective depending on their likelihood to spread COVID-19, Motility/GI Physiology Laboratory leadership should implement a consistent and standard preprocedural COVID-19 screening program. Although studies have demonstrated high false-negative rates for identifying COVID-19,<sup>5,6</sup> a standard preprocedural COVID-19 screening program provides a rigorous method for identifying potential COVID-19-positive patients. These screening programs have been implemented institution-wide in many centers, and not specific for Motility/GI Physiology Laboratory procedures. Furthermore, this methodology allows for streamlining communication between Allied Health Professionals, providers, and business office staff, promoting Motility/GI Physiology team morale. We recognize the increased time commitment for implementing a Motility/GI Physiology Laboratory COVID-19 safety plan. Therefore, with certain procedures such as the wireless motility capsule and hydrogen breath testing, providers may elect to use alternative methodology (patient ingests motility capsule alone in a room) or alternate tests (home breath testing kits) limiting the need for preprocedural COVID-19 screening.<sup>7</sup>

We also agree with the comment related to the logistical challenge for scheduling Motility/GI Physiology Laboratory procedures during the COVID-19 pandemic. The mandatory PPE for each procedure should be donned and doffed correctly regardless of preprocedure COVID-19 screening results. As we move forward with reopening Motility/GI Physiology Laboratory operations, as a local leadership group, physician directors, allied health staff, administrators, and business office personnel, should strategize to enhance methods for streamlining communication among team members to enrich the patient experience during the COVID-19 pandemic. Using strategies to consolidate multiple Motility/GI Physiology Laboratory procedures during a single encounter, limiting repeated need for COVID-19 screening tests, work absenteeism, and PPE requirements may extend beyond the COVID-19 pandemic and will build patient loyalty.

#### ACKNOWLEDGMENT

ANMS Task Force.

#### CONFLICT OF INTEREST

Consultant Diversatek Healthcare. No conflict of interest for this project.

Jason R. Baker<sup>1</sup> D Baha Moshiree<sup>1</sup> John Pandolfino<sup>2</sup> C. Prakash Gyawali<sup>3</sup> D

<sup>1</sup>Atrium Health, University of North Carolina, Charlotte, NC, USA

<sup>2</sup>Northwestern University, Chicago, IL, USA

<sup>3</sup>Washington University, St. Louis, MO, USA

#### Correspondence

Jason R. Baker, Atrium Health, University of North Carolina, 1025 Morehead Medical Drive Suite 300, Charlotte, NC 28204, USA.

Email: Jason.Baker@atriumhealth.org

## ORCID

Jason R. Baker D https://orcid.org/0000-0002-0922-4823 C. Prakash Gyawali D https://orcid.org/0000-0002-3388-0660

#### REFERENCES

- 1. Cheung KS, Hung IF, Chan PP, et al. Gastrointestinal manifestations of SARS-CoV-2 infection and virus load in fecal samples from the Hong Kong cohort and systematic review and meta-analysis. *Gastroenterology*. 2020;159(1):89-95.
- 2. Wang W, Xu Y, Gao R, et al. Detection of SARS-CoV-2 in different types of clinical specimens. *JAMA*. 2020;323(18):1843-1844.
- 3. Wu Y, Guo C, Tang L, et al. Prolonged presence of SARS-CoV-2 viral RNA in faecal samples. *Lancet Gastroenterol Hepatol.* 2020;5(5):434-435.
- Siah KTH, Rahman MM, Miwa H, et al. The practice of gastrointestinal motility laboratory during the COVID-19 pandemic: position statements of the asian neurogastroenterology and motility association (ANMA-GML-COVID-19 Position Statement). J Neurogastroenterol Motil. 2020;26(3):299-310.
- Li D, Wang D, Dong J, et al. False-negative results of real-time-reverse-transcriptase polymerase chain reaction or severe acute respiratory syndrome coronavirus 2: role of deep learning-based CT diagnosis and insights from two cases. *Korean J Radiol.* 2020;21(4):505-508.
- Castro R, Luz PM, Perazzo H, et al. COVID-19: a meta-analysis of diagnostic test accuracy of commercial assays registered in Brazil. Br J Infect Dis. 2020;24:180-187.
- Baker JR, Moshiree B, Rao S, et al. American Neurogastroenterology and Motility Society (ANMS) task force recommendations for resumption of motility laboratory operations during the COVID-19 pandemic. Accessed June 12, 2020. https://motilitysociety.org/pdf/ ANMS\_Task\_Force\_COVID\_Recommendations\_May\_2020.pdf