## VIDEO CASE REPORT

## How to manage an endoscopy unit during a COVID-19 pandemic



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COVID-19 has become a global public health concern. Because of potential aerosol transmission, GI endoscopy is considered a high-risk procedure during this pandemic. However, it is irrational to stop all endoscopic procedures. Instead, for a careful trade-off between potential risk of hospital infection and performance of lifesaving procedures, the selection of indications for emergency endoscopy cannot be overemphasized; necessary endoscopic procedures should be performed with patients

Wearing PPE during COVID-19

- 1. Mask
- 2. Cap
- 3. Goggles or face shields
- 4. Gown
- 5. Shoe covers
- 6. Gloves

Removing PPE during COVID-19

- 1. Remove gloves
- 2. Hand hygiene
- 3. Remove shoe covers
- 4. Hand hygiene
- 5. Remove gowns
- 6. Hand hygiene
- 7. Remove goggles/face shields
- 8. Hand hygiene
- 9. Remove masks
- 10. Hand hygiene
- 11. Remove caps
- 12. Hand hygiene

**Figure 1.** Steps of wearing and removing personal protective equipment during COVID-19.

and healthcare providers all well protected. Preventing COVID-19 transmission in endoscopy units is an important problem that faces many gastroenterology departments.

Video 1 (available online at www.VideoGIE.org/) shows how to manage an endoscopy unit during the COVID-19 pandemic, with specific details on workflow, screening of staff, screening of patients, management in preprocedure areas and endoscopy rooms, postprocedural management, environment disinfection, endoscopy disinfection, and patient follow-up. We also provide details on how to put on and remove personal protective equipment (Fig. 1).

In conclusion, the importance of an epidemiologic survey and screening of patients and staff cannot be overemphasized during the pandemic. In addition to adequate personal protective equipment, hand hygiene and compliance with protocols are important. Special caution should be taken to prevent transmission among medical staff. Our success in preventing endoscopy unit transmission of COVID-19 is dependent on every team member.

## **DISCLOSURE**

All authors disclosed no financial relationships.

## REFERENCES

- Wang C, Horby PW, Hayden FG, Gao GF. A novel coronavirus outbreak of global health concern. Lancet 2020;395:470-3.
- Zhang H, Kang Z, Gong H, et al. The digestive system is a potential route of 2019-nCov infection: a bioinformatics analysis based on single-cell transcriptomes. BioRxiv 2020. Epub 2020 Jan 31.

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http://dx.doi.org/10.1016/j.vgie.2020.03.007