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Gastrointestinal endoscopy during COVID-19 pandemic: an updated review of guidelines and statements from international and national societies

To the Editor

We read with great interest the manuscripts published by Repici et al¹ and Soetikno et al² in *Gastrointestinal Endoscopy* on recommendations for endoscopic examinations during the Coronavirus 2019 disease (COVID-19) pandemic. Health care workers (HCW) are at increased risk for COVID-19 because upper GI endoscopy is a high-risk aerosol-generating procedure,² and oral-fecal transmission might be a potential route for COVID-19.³

Recommendations have been changing rapidly and need to be updated, mainly because we are facing a scenario of sustained community transmission of COVID-19 worldwide.⁴ To conduct an overview of the recommendations for endoscopic procedures during the COVID-19 pandemic, we assessed electronic sites of international/national societies of gastroenterology/gastrointestinal endoscopy to review the current recommendations up to March 27, 2020. Overall, 93 international/national societies were identified, and 21 of them have elaborated specific recommendations for endoscopy during the COVID-19 pandemic (supplementary material available upon request). A total of 95% recommended temporarily postponing elective/nonurgent procedures; 86% to stratify patients for risk of COVID-19 before the examination (questionnaire of symptoms and/or patient's body temperature); 38% to reduce the number of people who accompany patients; 33% to stimulate self-surveillance of signs/symptoms by HCW, and 19% to contact patients 14 days after the examination to check symptoms (supplementary material available upon request).

All societies recommended the use of personal protective equipment (PPE) during the examination (gloves, mask, goggles, or face shield, gown, and hairnet; double gloves and use of N95 or FFP2/3 masks were recommended in highly suspected or confirmed cases), and 43% recommended that the endoscopy team must be trained in wearing and removing PPE (Table 1). There was not any mention of using pre- or postexposure prophylaxis for HCW. All international societies recommended following a standardized reprocessing procedure for flexible endoscopes.

In summary, we validated the recommendations for endoscopy during the COVID-19 pandemic described by our colleagues based on an extensive and updated review of statements of international and national societies of gastroenterology/gastrointestinal endoscopy worldwide. The situation is rapidly evolving, and this guidance might be updated regularly.

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2. Soetikno R, Teoh AY, Kaltenbach T, et al. Considerations in performing endoscopy during the COVID-19 pandemic. *Gastrointestinal Endoscopy* 2020. <https://doi.org/10.1016/j.gie.2020.03.3758>

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Table 1. Recommendations for endoscopy during the COVID-19 pandemic from International/National Societies of gastroenterology/gastro-intestinal endoscopy, updated on March 26, 2020

Society; region or country	Date	Postpone nonurgent exams	Urgent procedures	Prescreening of patients	Patients should use masks	Training for PPE for use	Type of recommended PPE	Contact patients 14 days after exam	Self-surveillance of HCW
International Society									
European Society of Gastrointestinal Endoscopy (ESGE); Europe	March 18, 2020	Yes	Not reported	Yes; questionnaire	Yes for all	Yes; how to wear and to remove	Double gloves, mask (FFP2/3), goggles of face shield, gown, hairnet	Yes	Not reported
Sociedad Interamericana de Endoscopia Digestiva (SIED); Canada/Central and Latin America	March 18, 2020	Yes	Not reported	Yes; questionnaire	Not reported	Not reported	Double gloves, mask (surgical), goggles of face shield, gown, hairnet	Not reported	Yes
World Endoscopy Organization (WEO); Global	March 24, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis	Yes; questionnaire	Not reported	Yes; how to wear and to remove	Gloves, mask (N95;FFP2/3), goggles or face shield, gown, hairnet	Not reported	Not reported
National Society – United States									
American College of Gastroenterology (ACG); USA	March 15, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer, prosthetic removals	Yes; questionnaire	Not reported	Yes; how to wear and to remove	Gloves, mask (type not reported), goggles or face shield, gown	Yes	Not reported
American Gastroenterological Association (AGA); USA [†]	March 18, 2020	Not reported	Not reported	Not reported	Not reported	Not reported	Gloves, mask (N95), goggles or face shield, gown	Not reported	Not reported
American Society for Gastrointestinal Endoscopy (ASGE); USA [§]	March 27, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer	Yes; questionnaire, body temperature	Yes if symptoms	Yes; how to wear and to remove	Gloves, mask (N95/FFP2), goggles or face shield, gown	Yes	Not reported
National Society – Canada/America									
Asociación Mexicana de Endoscopia Gastrointestinal; México	Not reported	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer, drainage of pancreatic collection, nutritional tube	Yes; questionnaire	Yes for all	Yes; how to wear and to remove	Gloves, mask (type not reported), goggles or face shield, gown, hairnet. Double gloves, special masks (N95; FFP2/3), goggles and face shield in high suspected or confirmed cases	Not reported	Not reported
Canadian Association of Gastroenterology; Canadá	March 16, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis	Yes; questionnaire	Not reported	Not reported	Gloves, mask (surgical), goggles or face shield, gown. Double gloves and special mask (N95 or FFP2/3) in high suspected or confirmed cases	Not reported	Not reported
Federación Argentina de Asociaciones de Endoscopia Digestiva; Argentina	March 16, 2020	Yes	Not reported	Yes; questionnaire	Yes if symptoms	Not reported	Gloves, mask (surgical; N95 in high suspected or confirmed cases), goggles or face shield, gown, hairnet	Not reported	Not reported
Sociedad Chilena de Gastroenterología; Chile	Not reported	Yes	Not reported	Yes; questionnaire, body temperature	Not reported	Yes; how to wear and to remove	Gloves, mask (surgical), goggles or face shield, gown. Double gloves and special mask (N95 or FFP2/3) in high suspected or confirmed cases	Not reported	Yes
Sociedad Dominicana de Gastroenterología; República Dominicana	March 16, 2020	Yes	Not reported	Yes; questionnaire, body temperature	Not reported	Not reported	Not reported	Not reported	Yes

Sociedad Uruguaya de Endoscopia Digestiva; Uruguay	March 13, 2020	Yes	Not reported	Yes; questionnaire, body temperature	Not reported	Not reported	Gloves, mask (surgical), goggles or face shield, gown. Special mask (N95 or FFP3) in confirmed cases	Not reported	Not reported
Sociedade Brasileira de Endoscopia Digestiva; Brazil	March 21, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer, endoscopic ligation band; endoscopic dilatation	Yes; questionnaire	Yes for all	Yes; how to wear and to remove	Double gloves, double mask (surgical plus N95), goggles or face shield, gown, hairnet	Yes	Not reported
National Society – Europe									
British Society of Gastroenterology (BSG); United Kingdom	March 28, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer, urgent inpatient nutrition support (PEG/NJ tube), endoscopic vacuum therapy for perforations/leaks; infected pancreatic collections	Not reported	Not reported	Yes; how to wear and to remove	Gloves, mask (FFP3), goggles or face shield, gown, hairnet	Not reported	Not reported
French Society of Digestive Endoscopy (SFED); France	March 11, 2020	Yes	Not reported	Yes; questionnaire	Yes for all	Not reported	Gloves, mask (surgical; FFP2 in symptomatic patients), goggles or face shield, gown.	Not reported	Yes
Portuguese Society of Digestive Endoscopy (SPED); Portugal	March 15, 2020	Yes	Not reported	Yes; Questionnaire	Not reported	Not reported	Gloves, mask (surgical), goggles or face shield, gown. Double gloves and special mask (FFP2) in confirmed cases	Not reported	Yes
Romanian Society of Gastrointestinal Endoscopy (SRED)	March 15, 2020	Yes	Not reported	Yes; not reported	Not reported	Not reported	Not reported	Not reported	Not reported
Spanish Association of Digestive Endoscopy (SEED) ; Spain	March 15, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer,	Not reported	Not reported	Not reported	Gloves, mask (surgical), goggles or face shield, gown. Double gloves and special mask (FFP3) in confirmed cases	Not reported	Not reported
National Society – Asia-Pacific									
Indian Society of Gastroenterology; India	March 18, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer, urgent inpatient nutrition support (PEG/NJ tube), drainage of infected pancreatic collections	Yes; questionnaire, body temperature	Yes if symptoms	Yes; how to wear and to remove	Gloves, mask (type not reported), goggles or face shield (both in high suspected patients), gown	Not reported	Yes
Gastroenterological Society of Australia (GESA); Australia	March 20, 2020	Yes	Not reported	Yes; questionnaire	Not reported	Yes; how to wear and to remove	Gloves, mask (surgical; N95 or FFP2/3 in high suspected or confirmed cases), goggles or face shield, gown	Not reported	Not reported
Philippine Society of Gastroenterology; Philippine	March 13, 2020	Yes	Upper GI bleeding, foreign body/obstruction; acute cholangitis, care of cancer, urgent inpatient nutrition support (PEG/NJ tube)	Yes; questionnaire, body temperature	Not reported	Not reported	Gloves, mask (surgical), goggles or face shield (both in high suspected patients), gown, hairnet. Special masks (N95), goggles and face shield in high suspected or confirmed cases	Not reported	Yes

Web links for all Societies and recommendations are available in the supplementary material, upon request.

GI, Gastrointestinal; PEG, percutaneous endoscopy gastrostomy; NJ, nasojejunal;

[§] Recommendations based on manuscript from Soetikno et al GIE doi <https://doi.org/10.1016/j.gie.2020.03.3758>;

[†] Recommendations based on manuscript from Ungaro et al CGH <https://doi.org/10.1016/j.gie.2020.03.3758> and joint GI society message from ACG, AASLD, ACG, ASGE.