

**COVID-19** CADTH REFERENCE LIST

# Personal Protective Equipment for Endoscopy or General Surgery in Patients With Respiratory Infections: Guidelines

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To produce this report, CADTH used a modified approach to the selection, appraisal, and synthesis of the evidence to meet decision-making needs during the COVID-19 pandemic. Care has been taken to ensure the information is accurate and complete, but it should be noted that international scientific evidence about COVID-19 is changing and growing rapidly.

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## Research Question

What are the evidence-based guidelines regarding the use of personal protective equipment during endoscopy or general surgery procedures for patients that may have respiratory infections?

## Key Findings

Two evidence-based guidelines were identified regarding the use of personal protective equipment during endoscopy or general surgery procedures for patients that may have respiratory infections.

## Methods

A limited literature search was conducted by an information specialist on key resources including Ovid Medline, PubMed, the Cochrane Library, the University of York Centre for Reviews and Dissemination databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine’s MeSH (Medical Subject Headings), and keywords. The main search concepts were endoscopy or surgery and respiratory infections and personal protective equipment. Search filters were applied to limit retrieval to guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2015 and May 7, 2020. Internet links were provided, where available.

## Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

**Table 1: Selection Criteria**

<b>Population</b>	Individuals who are diagnosed with or may have respiratory infections (e.g., coronavirus disease, severe acute respiratory syndrome, tuberculosis)
<b>Intervention</b>	Personal protective equipment used during endoscopy or general surgery procedures
<b>Comparator</b>	Not applicable
<b>Outcomes</b>	Recommendations regarding best practices (e.g., guidance around which personal protective equipment should be worn by health care providers to reduce the risk for transmission)
<b>Study designs</b>	Evidence-based guidelines

## Results

Two evidence-based guidelines<sup>1,2</sup> were identified regarding the use of personal protective equipment during endoscopy or general surgery procedures for patients that may have respiratory infections.

References of potential interest that did not meet the inclusion criteria are provided in the appendix.

## Guidelines and Recommendations

1. Global guidance for surgical care during the COVID-19 pandemic. *Br J Surg*. 2020 Apr 15.  
[PubMed: PM32293715](#)  
*See: Emergency Surgery and Table 1: Key Domains*
2. Ong J, Cross GB, Dan YY. Prevention of nosocomial SARS-CoV-2 transmission in endoscopy: international recommendations and the need for a gold standard. *Gut*. 2020 Apr 02;02:02.  
[PubMed: PM32241901](#)  
*See: Table 2*

## Appendix — Further Information

### Previous CADTH Reports

3. The use of N95 respirators for protection against droplet borne illness: a review of the clinical effectiveness and guidelines. (CADTH Rapid response: summary with critical appraisal.) Ottawa (ON): CADTH; 2017:  
<https://www.cadth.ca/use-n95-respirators-protection-against-droplet-borne-illness-review-clinical-effectiveness-and-0>. Accessed 2020 May 11.

### Clinical Practice Guidelines — Methodology Not Specified

#### Canada

4. PPE for endoscopy procedures during COVID-19 pandemic. Edmonton (AB): Alberta Health Services; 2020 Apr 25:  
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5. PPE utilization for endoscopic procedures during COVID-19. Halifax (NS): Capital Health Nova Scotia; 2020 Mar 27:  
<http://www.cdha.nshealth.ca/system/files/sites/documents/guideline-ppe-endoscopy.pdf>. Accessed 2020 May 11.
6. IPAC best practices guideline endoscopy & bronchoscopy. Vancouver (BC): Vancouver Coastal Health; 2017:  
<http://ipac.vch.ca/Documents/Acute%20Resource%20manual/Endoscopy%20and%20Bronchoscopy.pdf>. Accessed 2020 May 11.

#### America

7. COVID 19: considerations for optimum surgeon protection. Chicago (IL): American College of Surgeons; 2020 Mar 27:  
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8. Guidance for resuming GI endoscopy and practice operations after the COVID-19 pandemic. Downers Grove (IL): American Society for Gastrointestinal Endoscopy; 2020 Apr 28:  
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*See: Distancing and PPE Considerations for The Endoscopy Center, page 3 to 4*
9. Joint Society Message: gastroenterology professional society guidance on endoscopic procedures during the COVID-19 pandemic. 2020:  
<https://www.aasld.org/sites/default/files/2020-04/JointSocietyMessage-ProceduresInTimeOfCOVID19-FINAL.pdf>. Accessed 2020 May 11.

*International*

10. Boccalatte LA, Larranaga JJ, Perez Raffo GM, et al. Brief guideline for the prevention of COVID-19 infection in head and neck and otolaryngology surgeons. *Am J Otolaryngol*. 2020 Apr 10:102484.  
[PubMed: PM32359869](#)
11. British Society of Gastroenterology. COVID-19: BSG and BASL advice for healthcare professionals in gastroenterology and hepatology. 2020 Apr 24:  
<https://www.bsg.org.uk/covid-19-advice/bsg-and-basl-covid-19-advice-for-healthcare-professionals-in-gastroenterology-and-hepatology/>. Accessed 2020 May 11.  
*See: Endoscopy and COVID-19*
12. Ciavattini A, Delli Carpini G, Giannella L, et al. Expert consensus from the Italian Society for Colposcopy and Cervico-Vaginal Pathology (SICPCV) for colposcopy and outpatient surgery of the lower genital tract during the COVID-19 pandemic. *Int J Gynaecol Obstet*. 2020 Apr 08;08:08.  
[PubMed: PM32270477](#)
13. Irisawa A, Furuta T, Matsumoto T, et al. Gastrointestinal endoscopy in the era of the acute pandemic of COVID-19: recommendations by Japan Gastroenterological Endoscopy Society (issued on April 9th, 2020.). *Dig Endosc*. 2020 Apr 26;26:26.  
[PubMed: PM32335946](#)  
*See: Protective procedures for gastrointestinal endoscopy*
14. Kowalski LP, Sanabria A, Ridge JA, et al. COVID-19 pandemic: effects and evidence-based recommendations for otolaryngology and head and neck surgery practice. *Head Neck*. 2020 Apr 09;09:09.  
[PubMed: PM32270581](#)
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[PubMed: PM32312676](#)
16. Repici A, Maselli R, Colombo M, et al. Coronavirus (COVID-19) outbreak: what the department of endoscopy should know.  
[PubMed: PM32179106](#)  
*See: Endoscopy personnel precautions and dress code*
17. Royal College of Surgeons of England. Updated intercollegiate general surgery guidance on COVID-19, 2020 Apr 7;  
<https://www.rcseng.ac.uk/coronavirus/joint-guidance-for-surgeons-v2/>. Accessed 2020 May 11.  
*See: Table (link)*
18. WEO advice to endoscopists Update 9 April 2020. Munich (DE): World Endoscopy Organization; 2020:  
[http://www.worldendo.org/wp-content/uploads/2020/04/200409\\_WEO-Advice-to-Endoscopists-COVID-19-Update-April-9-2020.pdf](http://www.worldendo.org/wp-content/uploads/2020/04/200409_WEO-Advice-to-Endoscopists-COVID-19-Update-April-9-2020.pdf). Accessed 2020 May 11.

## Position Statements

19. Almadi MA, Aljebreen AM, Azzam N, et al. COVID-19 and endoscopy services in intermediately affected countries: a position statement from the Saudi gastroenterology association. *Saudi J Gastroenterol*. 2020 Apr 30.  
[PubMed: PM32351243](#)
20. Chiu PWY, Ng SC, Inoue H, et al. Practice of endoscopy during COVID-19 pandemic: position statements of the Asian Pacific Society for Digestive Endoscopy (APSDE-COVID statements). *Gut*. 2020 Apr 02.  
[PubMed: PM32241897](#)  
*See: Figure 1*
21. Gralnek IM, Hassan C, Beilenhoff U, et al. ESGE and ESGENA position statement on gastrointestinal endoscopy and the COVID-19 pandemic. *Endoscopy*. 2020 Apr 17.  
[PubMed: PM32303090](#)

## Preliminary Reports — Not Peer-Reviewed

*Preprints are reports that have not been formally published or peer-reviewed. They should not be relied on to guide clinical practice or health-related behaviour*

22. Birgand G, Mutters NT, Otter J, et al. Analysis of national and international guidelines on respiratory protection equipment for COVID-19 in healthcare settings. **[non peer-reviewed preprint]**. medRxiv; 2020: doi: 10.1101/2020.04.23.20077230  
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23. Engelman D et al. Adult cardiac surgery and the COVID-19 pandemic: aggressive infection mitigation strategies are necessary in the operating room and surgical recovery. *Ann Thorac Surg*. 2020 Apr 27. **[non peer-reviewed preprint]**  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7185911/>. Accessed 2020 May 11.
24. Ong J, Cross GB, Yock Young D. The prevention of nosocomial SARS-CoV2 transmission in endoscopy: a systematic review of recommendations within gastroenterology to identify best practice. **[non peer-reviewed preprint]**. medRxiv; 2020: doi: 10.1101/2020.03.17.20037564  
<https://www.medrxiv.org/content/10.1101/2020.03.17.20037564v1>. Accessed 2020 May 11
25. Sultan S, Lim JK, Altayar O, et al. AGA institute rapid recommendations for gastrointestinal procedures during the COVID-19 pandemic. *Gastroenterology*. 2020 Mar 31. **[non peer-reviewed preprint]**  
[PubMed: PM32247018](#)

## Review Articles

26. Castro Filho EC, Castro R, Fernandes FF, Pereira G, Perazzo H. Gastrointestinal endoscopy during the COVID-19 pandemic: an updated review of guidelines and statements from international and national societies. *Gastrointest Endosc*. 2020 Apr 05;05:05.  
[PubMed: PM32268135](#)

27. Lui RN, Wong SH, Sánchez-Luna SA, et al. Overview of guidance for endoscopy during the coronavirus disease 2019 pandemic. *J Gastroenterol Hepatol*. 2020 May;35(5):749-759.  
[PubMed: PM32233034](#)
28. Stewart C et al. Personal protective equipment and COVID-19 – a review for surgeons. *Ann Surg*. 2020 (in press)  
<https://journals.lww.com/annalsofsurgery/Documents/Personal%20Protective%20Equipment%20and%20COVID-19%20%E2%80%93%20A%20Review%20for%20Surgeons.pdf>.  
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