Ontario Health
Cancer Care Ontario

COVID-19 TIP SHEET FOR FACILITIES PERFORMING GASTROINTESTINAL (GI) ENDOSCOPY *(REVISED)*

009 – Guidance for Increasing GI Endoscopy Services – 2020-06-03

To:	RVPs and Directors
From:	ColonCancerCheck/Gastrointestinal Endoscopy Program, Ontario Health (Cancer Care Ontario)
Re:	Guidance for increasing gastrointestinal endoscopy during COVID-19 *(revised)*

Preamble

On May 7, 2020, Ontario Health released a guidance document called *A Measured Approach to Planning for Surgeries and Procedures During the COVID-19 Pandemic*, which identifies criteria for reintroducing scheduled surgical and procedural work, as well as guiding principles for establishing a case prioritization process. This tip sheet is intended to supplement the provincial guidance with specific considerations for increasing gastrointestinal (GI) endoscopy services. It is not intended to replace or supersede any other provincial guidance, government directives or public health measures.

Issue Summary

As the COVID-19 pandemic evolves, it is important to consider the impact of deferred care and develop a plan to resume services while maintaining COVID-19 preparedness. It is also important to consider the risk of disease transmission during GI endoscopy procedures. Regional Cancer Programs (RCPs) and the broader GI endoscopy community have requested support in developing a priority classification framework for GI endoscopy during COVID-19.

Background

To support planning for increasing GI endoscopy services during COVID-19 the following guidance has been developed.

Approach

To inform this tip sheet, several guidelines from national and international GI endoscopy associations were reviewed and synthesized by the ColonCancerCheck Clinical Lead and Lead Scientist (guidelines are referenced in the additional resources section below). The Regional Colorectal Screening/GI Endoscopy Leads and a subset of the Regional Primary Care Leads then provided their input on the draft guidance.

Recommendations

Key considerations for increasing GI endoscopy services

Interdependence of services

- To guide decision-making, RCPs and facilities should consider the interdependence of GI endoscopy with other diagnostic services, supporting services and critical supplies, such as:
    - Primary care, surgery, oncology, pathology and diagnostic imaging ; and
    - Personal protective equipment (PPE) and medications.
- Regional and facility leadership should work together to:
    - Ensure there are no unintended consequences for other diagnostic and surgical services following a decision to increase the number of GI endoscopy procedures being performed;
    - Prioritize the allocation of critical supplies; and
    - Ensure equitable access to care.

Infection prevention and control (IPAC)

Note: This section has been revised to provide additional clarity regarding the transmission of COVID-19 during GI endoscopy

- The risk of exposure to COVID-19 and of subsequent infection may be substantial during endoscopy.
    - Transmission of COVID-19 is felt chiefly to occur via droplet transmission during close, unprotected contact (1). Some medical procedures, such as endotracheal intubation, are considered high risk for transmission as they generate aerosols which can facilitate respiratory transmission. These are considered aerosol generating medical procedures (AGMPs) (2).
    - Due to limited evidence, upper GI endoscopy has not generally been considered an AGMP by infection control authorities (2, 3), but many GI societies suggest that they are high risk due to manipulation of the oropharynx, suctioning of secretions and frequent coughing that occurs during these procedures (4,5,6,7). Facilities should consult with their local IPAC experts to determine a local policy.
    - Viral RNA has been isolated from the stools of infected individuals, potentially leading to oral-fecal transmission (6).
    - Some patients with COVID-19 present with GI symptoms (e.g., diarrhea, anorexia and vomiting) (8), which may lead to endoscopic examinations being performed on people with COVID-19.
    - GI endoscopy units and clinics are high-throughput services that care for many people from the community every day, which increases the likelihood of COVID-19 exposure and subsequent transmission.

- It is crucial that hospital-based and community-based GI endoscopy units and clinics develop and adhere to a carefully designed IPAC strategy (6).
    - All GI endoscopy units and clinics should have an IPAC policy that is aligned with hospital, regional or provincial guidance.
    - For hospital-based endoscopy units and clinics, the policy should be reviewed and approved by hospital IPAC departments, as per any local hospital policy.
    - For community-based clinics, it is recommended that the policy is reviewed by person(s) with appropriate IPAC expertise.
    - All GI endoscopy units and clinics should monitor for changes in hospital, regional, or provincial guidance and adjust their IPAC policy accordingly.
- The European Society of Gastrointestinal Endoscopy (ESGE) and The European Society of Gastroenterology and Endoscopy Nurses and Associates (ESGENA) COVID-19 guideline (6) outlines the information that should be included in IPAC policies, such as:
    - Screening and monitoring for signs and risk of COVID-19 infection such as pre-procedure patient screening, post-procedure patient follow-up and daily staff assessment for signs or symptoms of infection;
    - Approach to isolation and testing for high risk or infected patients;
    - Set-up and flow of patients to allow adequate physical distancing (e.g., placement of physical barriers);
    - Training for PPE donning and duffing;
    - PPE inventory management;
    - Hygiene measures (e.g., hand washing protocols);
    - Cleaning and disinfection protocols for GI endoscopy procedure rooms and patient waiting rooms during the COVID-19 pandemic;
    - Criteria for procedure room set-up that takes into account possible sources of contamination; (e.g., mobile phones, pens, computer workstations, medical equipment);
    - A waste management strategy;
    - Training for GI endoscopy staff on the IPAC policy; and
    - A risk management strategy.
- All staff working in a GI endoscopy unit or clinic should be trained on their unit's or clinic's IPAC policy.

Priority classification framework for GI endoscopy

- The priority classification framework for GI endoscopy was modelled on the framework in the Ontario Health (Cancer Care Ontario) *Pandemic Planning Clinical Guideline for Patients with Cancer* document.
- To meet the needs of GI endoscopy, the priority classification framework was expanded to include five priority levels (A, B1, B2, C, D). Definitions for each priority level are outlined in Table 1.
- GI endoscopy indications were assigned to one of the five priority levels based on their potential for serious consequences in terms of morbidity and mortality (see Table 2 for a list of common indications under each priority level).

Implementation considerations

- As per *A Measured Approach to Planning for Surgeries and Procedures During the COVID-19 Pandemic,* facilities and regions should use a **staged or stepwise approach for resuming services.**
- When and how procedures are resumed at each priority level should be based on local factors, such as:
    - Availability and impact on resources (e.g., PPE, medications, staffing and physical space); and
    - Local trends of COVID-19 infection.
- The priority classification framework is intended to allow for flexibility based on physician discretion and clinical circumstance. Some indications (e.g., management of benign strictures, percutaneous endoscopic gastrostomy [PEG] tube placement) may require higher or lower prioritization than indicated in the framework, depending on the clinical status of the patient at presentation and/or expected benefits of the procedure.
- Consideration should be given to time on waitlists and prior delays related to COVID-19 (e.g., people in each priority level who have been waiting the longest should be given access first).
- The priority level of repeat procedures due to incomplete assessment should be determined on an individual basis using clinical judgement. Generally, repeat procedures for incomplete assessments with a high index of suspicion should remain at the same priority level.
- Generally, inpatient GI endoscopy procedures should be ranked as higher priority to avoid the need for subsequent outpatient GI endoscopy appointments. Where possible and if safe, inpatient procedures should be performed so as to limit impact on the length of stay.
- Whenever possible, using non-endoscopic and non-invasive approaches to diagnosis and management should be considered.

Table 1: Priority classification definitions

Priority		Definition	GI endoscopy recommendation
A		Patients who are deemed critical and require GI endoscopy because their situation is unstable, is causing unbearable suffering or is immediately life-threatening	**GI endoscopy must always be performed**
B	B1	Non-critical patients who require services or treatment for conditions that may cause an early negative impact on quality of life or functional status	**These endoscopic procedures should be performed**
	B2	Non-critical patients who require services or treatments for conditions that may in the mid-to long-term cause negative impact on quality of life, functional status or prognosis	**These endoscopic procedures could be performed**
C		Patients who are generally healthy whose condition is deemed as non-life-threatening where the service can be delayed without anticipated change in outcome for many months or, in some cases, years	**These endoscopic procedures could be performed in some circumstances**
D		Patients who can be screened for CRC with FIT instead of colonoscopy. People with these indications should be referred back to their primary care provider with the recommendation to screen with FIT when FIT testing resumes	**Do not perform GI endoscopy on these people during or after the pandemic**
Acronyms: Colorectal cancer (CRC), fecal immunochemical test (FIT) and gastrointestinal (GI)			

Table 2: Prioritization of GI endoscopy procedures during COVID-19 according to indication

A	Patients who are deemed critical and require GI endoscopy because their situation is unstable, is causing unbearable suffering and/or is immediately life threatening. **GI endoscopy must always be performed.**	

	• Overt or suspected upper or lower GI bleed with hemodynamic instability
	• Anemia with hemodynamic instability
	• Foreign body in the esophagus or in the stomach
	• Acute obstruction needing decompression, such as
	  ○ Obstructive jaundice
	  ○ Symptomatic CBD stone
	  ○ Stenting of malignant stricture
	  ○ Decompression of volvulus
	• Ascending cholangitis
	• Treatment of perforation/leak/fistula/abscess
	• High likelihood of GI cancer based on imaging, laboratory results, physical examination or symptoms (e.g., dysphagia with alarm symptoms present, pancreatic mass)	

B	**B1**	Non-critical patients who require services/treatment for conditions that may cause early negative impact on quality of life or functional status. **These endoscopic procedures should be performed.**
	• Investigation of progressive GI symptoms with alarm features present and diagnostic uncertainty (e.g., severe diarrhea) • Active colitis unresponsive to treatment or new diagnosis of IBD presenting with significant symptoms • Endoscopic treatment of HGD or early intramucosal cancer in the esophagus or stomach • Large polyps at high-risk of submucosal invasion anywhere in the GI tract • PEG/PEJ/NJ tube insertion for indications other than end stage dementia or routinely scheduled change • FIT-positive colonoscopies • Overt GI bleeding with anemia but no hemodynamic instability • Follow-up variceal ligation after acute bleeding • Endoscopy to support other planned therapeutic interventions (e.g., tattooing prior to surgical resection) • Site recheck post endoscopic resection of large sessile lesions or polyps with worrisome histologic features • Suspected CBD stone(s), if MRCP is not available • Gallstone pancreatitis with evidence of ongoing choledocholithiasis	
	B2	Non-critical patients who require services/treatments for conditions that may, in the mid to long-term, cause negative impact on quality of life, functional status or prognosis of the patient. **These endoscopic procedures could be performed.**
	• Symptomatic benign stricture requiring dilation, or stenting or stent replacement • Routine variceal band ligation • Uninvestigated iron deficiency anemia • Rectal bleeding without anemia • Gallstone-related pancreatitis • Pancreatic cyst (depending on risk features) • Submucosal lesion for EUS sampling • Management of achalasia • Endoscopic treatment of LGD anywhere in the GI tract	
C	Patients who are generally healthy whose condition is deemed as non-life threatening where the service can be delayed without anticipated change in outcome for many months or, in some cases, years. **These endoscopic procedures could be performed in some circumstances.**	
	• Investigation for non-alarm GI symptoms	

	• Surveillance
	  ○ Post-polypectomy surveillance for high risk adenomas or sessile serrated lesions as per *ColonCancerCheck Recommendations for Post-Polypectomy Surveillance*
	  ○ Other dysplasia surveillance (e.g., Barrett's Esophagus, IBD)
	  ○ Post CRC surveillance as per the *Ontario Health (Cancer Care Ontario) Colorectal Cancer Follow-Up Care Pathway Map*
	• Screening for people at increased risk of CRC (i.e., one or more first-degree relatives – parent, brother, sister or child – who have been diagnosed with the disease) as per ColonCancerCheck's screening recommendations
	• High risk screening for people with Lynch syndrome and other hereditary syndromes
	• Average risk screening with sigmoidoscopy in a person who cannot complete a FIT, as per ColonCancerCheck's screening recommendations
	• Bariatric GI endoscopy procedures (e.g., intra-gastric balloons, endoscopic sleeve gastroplasty)
	• Esophageal manometry/pH study or anorectal manometry

D	Patients who can be screened for CRC with the FIT instead of colonoscopy. Patients with these indications should be referred back to their primary care provider with the recommendation to screen with FIT, when FIT testing resumes. **Do not perform GI endoscopy on these people during or after the pandemic.**
	• CRC screening for people at average risk (i.e., no first-degree relatives diagnosed with CRC) as per *ColonCancerCheck's screening recommendations* • CRC screening for people with a history of small hyperplastic polyp(s) in rectum or sigmoid colon as per *ColonCancerCheck Recommendations for Post-Polypectomy Surveillance* • CRC screening for people with a history of low risk adenoma(s) as per *ColonCancerCheck Recommendations for Post-Polypectomy Surveillance*
Acronyms: Common bile duct (CBD), colorectal cancer (CRC), endoscopic ultrasound (EUS), fecal immunochemical test (FIT), gastrointestinal (GI), high grade dysplasia (HGD), inflammatory bowel disease (IBD), low grade dysplasia (LGD), magnetic resonance cholangiopancreatography (MRCP), nasojejunal (NJ), percutaneous endoscopic gastrostomy (PEG) and percutaneous endoscopic jejunostomy (PEJ)	

Opportunities to improve the delivery of GI endoscopy care

- It is expected that the impact of COVID-19 on the healthcare system, including constraints on healthcare capacity and PPE resources, will be prolonged.
- As per *A Measured Approach to Planning for Surgeries and Procedures During the COVID-19 Pandemic*, regions and facilities should consider opportunities for improving the delivery of GI endoscopy care during the COVID-19 pandemic.
- Throughout the pandemic, regional collaboration is encouraged to discuss opportunities to support equitable access to care (e.g., transfer of referrals between facilities based on capacity). Collaboration should involve RCP leadership (i.e., Regional Vice Presidents and Regional Directors).
- RCPs and facilities are also encouraged to track and monitor the backlog of procedures to inform wait time strategies (e.g., extending schedules)

Optimizing use of resources during management of endoscopy backlog

- As Ontario moves through the full course of the COVID-19 pandemic, GI endoscopy procedure volumes and indications will vary based on the availability of resources.

- Careful management of patients being considered for endoscopic procedures is encouraged to maximize capacity for high priority procedures and minimize risk to patients and staff. Potential strategies to optimize the use of endoscopic resources include:
    - Arranging virtual consultations to validate the indication for GI endoscopy and its prioritization;
    - Managing symptoms empirically as a first line approach and proceeding to GI endoscopy if the patient does not respond to symptom management or their clinical state worsens;
    - Reviewing all screening and surveillance indications, informed by prior endoscopic procedure reports and pathology reports (if available) to ensure alignment with the recommendations from Ontario Health (Cancer Care Ontario) (see Table 1, priorities C and D); and
    - If feasible, planning virtual follow up of patients to assess for new symptoms or, alternatively, determine whether GI endoscopy is still required. Patients on the waitlist should also be encouraged to report a change in symptoms to their endoscopist or primary care provider.

Centralized referral uptake, triage guidelines and endoscopy waitlists

- If feasible, facilities and RCPs can consider implementing a **centralized referral uptake** (i.e., coordinated points of entry for receiving referrals) process to:
    - Support the ethical prioritization of patients at a hospital and regional level;
    - Facilitate the identification of duplicate referrals (i.e., referrals that may have been sent to more than one facility and/or endoscopist for the same indication); and
    - Facilitate the use of agreed upon, **evidence-based referral triage criteria.** Facilities can use the classification framework described in this tip sheet as a starting point, tailor it based on local context and expand it to address non-procedural indications for GI consultations, as applicable; and
    - Reduce wait times for people who need GI endoscopy procedures (9).
- Facilities and RCPs can consider expanding centralized intake processes built for FIT-positive colonoscopies to other GI endoscopy indications.
- If feasible, facilities and RCPs can also consider implementing **centralized endoscopy waitlists.** Under a centralized endoscopy waitlist model, patients are booked to endoscopy slots that are not assigned to a specific endoscopist, rather, any eligible endoscopist may perform the procedure. Centralized endoscopy waitlists are beneficial because they:
    - Support the ethical prioritization of patients at hospital and regional levels; and
    - Facilitate tracking and monitoring of the procedure backlog to inform wait time strategies (e.g., extending schedules).

Additional Resources

COVID-19 guidelines from national and international GI endoscopy associations

a. Alberta Health Services. (2020). GI Endoscopy De-escalation Prioritization Criteria. May 2020
b. British Society of Gastroenterology (BSG) and Joint Advisory Group on GI Endoscopy (JAG) guidance. [Internet]. 2020 Apr [cited 2020 May 1]. Available from: https://www.bsg.org.uk/covid-19-advice/endoscopy-activity-and-covid-19-bsg-and-jag-guidance/

c. Chiu PW, Ng SC, Inoue H, Nageshwar Reddy D, Hu EL, Cho JY. Practice of endoscopy during COVID-19 pandemic: position statements of the Asian Pacific Society for Digestive Endoscopy (APSDE-COVID statements). Gut. 2020 Jun;69(6):991-996.
d. Gralnek IM, Hassan C, Beilenhoff U, Antonelli G, Ebigbo A, Pellisè M, et al. ESGE and ESGENA Position Statement on gastrointestinal endoscopy and the COVID-19 pandemic. Endoscopy [Internet]. 2020 Apr [cited 2020 May 1]. Doi:10.1055/a-1155-6229
e. Ménard, C, Waschk K, Tse F, Borgaonkar M, Nauzer F, Barkun N, et al. COVID-19: Framework for the Resumption of Endoscopic Activities from the Canadian Association of Gastroenterology. [Internet]. 2020 Apr [cited 2020 May 1]. Available from: https://www.cag-acg.org/images/publications/CAG-COVID-Endo-Resumption-Final-4-28-20.pdf
f. Sultan S, Lim JK, Altayar O, Davitkov P, Feuerstein JD, Siddique SM, et al. AGA Institute Rapid Recommendations for Gastrointestinal Procedures During the COVID-19 Pandemic. Gastroenterology [Internet]. 2020 Mar [cited 2020 May 1]. Doi: 10.1053/j.gastro.2020.03.072

References

1. Public Health Ontario. COVID-19 – What We Know So Far About… Routes of Transmission [Internet]. 2020 Apr [cited 2020 June 3]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/wwksf-routes-transmission-mar-06-2020.pdf?la=en
2. Ontario Health. Personal Protective Equipment (PPE) Use During the COVID-19 Pandemic [Internet]. 2020 Mar [cited 2020 June 2]. Available from: https://www.oha.com/Bulletins/Personal%20Protective%20Equipment%20use-COVID-19_Released_March_30_2020.pdf
3. Public Health Ontario. COVID-19: Aerosol Generating Medical Procedures (AGMPs) [Internet]. 2020 May [cited 2020 June 2]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/ipac/faq-covid-19-aerosol-generating-medical-procedures.pdf?la=en
4. Repici A, Maselli R, Colombo M, Gabbiadini R, Spadaccini M, Anderloni A et al. Coronavirus (COVID-19) outbreak: what the department of endoscopy should know. Gastrointestinal endoscopy [Internet]. 2020 Mar [cited 2020 Jun 3]. Doi: 10.1016/j.gie.2020.03.019
5. Johnston ER, Habib-Bein N, Dueker JM, Quiroz B, Corsaro E, Ambrogio M, Kingsley M et al. Risk of Bacterial Exposure to the Endoscopist's Face During Endoscopy. Gastrointestinal endoscopy. 2020 Apr; 89(4):818-24.
6. Gralnek IM, Hassan C, Beilenhoff U, Antonelli G, Ebigbo A, Pellisè M, et al. ESGE and ESGENA Position Statement on gastrointestinal endoscopy and the COVID-19 pandemic. Endoscopy [Internet]. 2020 Apr [cited 2020 May 1]. Doi:10.1055/a-1155-6229
7. Tse F, Borgaonkar M, Leontiadis G. COVID-19: Advice from the Canadian Association of Gastroenterology for Endoscopy Facilities, as of March 16, 2020. [Internet] 2020 Mar [cited 2020 May 26]. Available from: https://www.cag-acg.org/images/publications/CAG-Statement-COVID-&-Endoscopy.pdf
8. Tian Y, Rong L, Nian W, He Y. Review article: gastrointestinal features in COVID-19 and the possibility of faecal transmission. Alimentary Pharmacology and Therapeutics. 2020 Mar;51(9):843-851.
9. Urbach DR, Martin D. Confronting the COVID-19 surgery crisis: time for transformational change. CMAJ [Internet]. 2020 May [cited 2020 May 26]. Doi: https://doi.org/10.1503/cmaj.200791

Recommended Next Steps

Please feel free to share this guidance as you feel appropriate.

For More Information

Should you have any question regarding this guidance, please feel free to contact the ColonCancerCheck program at cancerscreening@ontariohealth.ca.