Gastrointestinal (GI) Endoscopic Biopsy Guidelines	
Service Area: Provincial Endoscopy Services	Guideline Number**:** **XX-TBD-XX V2**
Approved By: Provincial Clinical Leadership Team	Approved Date: **06/21/2022**

1.0 **PURPOSE:**

1.1 To provide information to endoscopists that would support patient care, by improving quality and efficiency related to endoscopic biopsies. Please see the important additions related to expected biopsy numbers, standardized specimen labelling, and clinical information required with submission of colonic polyps.

Medically unnecessary biopsies add cost to the system with no benefit to the patient. Submitting biopsies in more specimen containers than necessary (when the specific location of the biopsies does not impact clinical management) increases laboratory costs. Biopsies that are of suboptimal size or number limits the sensitivity of the pathologic assessment, negatively impacting the information provided for patient care. In general, biopsies should be obtained only when they will inform the clinical management of the patient.

2.0 **CLINICAL GUIDELINE:** Requisition and Tissue Submission Requirements

1. Pediatric Gastrointestinal Endoscopy
2. Clinical Information Provided on the Pathology Requisition
3. Indicating Biopsy Location on the Requisition
4. Esophagus Biopsy
5. Gastroesophageal Junction Biopsy
6. Gastric Biopsy
7. Duodenal Biopsy
8. Ileum Biopsy
9. Colon Biopsy for IBD Surveillance
10. Colon Biopsy for Possible Microscopic Colitis
11. Colonic Polyps
12. Biopsy of a Lesion Suspicious for Malignancy

2.1 **Paediatric Gastrointestinal Endoscopy**

These recommendations are intended to apply only to adult GI endoscopy. Guidelines for appropriate biopsy in pediatric endoscopy may differ. *Pediatric endoscopy should be performed by (or under the guidance of) a pediatric gastroenterologist.*

2.2 **Clinical Information Provided on the Pathology Requisition**

Clinical information that should be provided on the pathology requisition includes all information necessary to make a clinical-pathologic correlation, *and to clearly understand the clinical indication for all biopsies submitted.* For polyps, the number and (approximate) size of all polyps submitted should be included on the pathology requisition. This information is required to determine patient follow-up recommended by guidelines such as ColonCheck Manitoba.

For medical (non-polyp) biopsies, include:

- Site(s) of the biopsy
- Pertinent clinical information
- Endoscopic findings
- The clinical question or presumptive/differential diagnosis

For polyps (and other localized lesions), indicate:

- Site(s) of the polyp/lesion
- Endoscopic findings (is the polyp pedunculated, sessile, flat, etc)
- Number and estimated size of polyp(s), (and ideally indicate if removed intact or piece-meal).

2.3 Indicating Biopsy Location on the Requisition

When submitting a biopsy, please label the jar and requisition using one of the following standard statements of location first (see chart below), *followed by any additional secondary descriptor you wish to provide.*

Example: Esophagus upper and mid
Example: Rectum lesion at 10 cm

Esophagus	Cecum	Left colon
GE Junction	Ileocecal valve	Right and left colon
Stomach	Ascending colon	Sigmoid
Duodenum	Transverse colon	Rectum
Ampulla of Vater	Descending colon	Anus
Ileum	Right colon	

2.4 Esophagus Biopsy

In patients with dyspepsia, routine biopsy of normal or “reactive” appearing esophagus is not recommended. In this setting, biopsy should only be taken if there is an ulcer or lesion. Biopsies from the distal esophagus are not recommended to diagnose GERD.

Biopsies to confirm or exclude the possibility of eosinophilic esophagitis should be submitted in only 2 jars. One jar with biopsies from the mid and/or proximal esophagus which includes at least 2 to 4 fragments; and one jar from just above the distal esophagus which includes at least 2 to 4 fragments.

For diagnosis or biopsy surveillance of Barrett’s Esophagus, the endoscopically abnormal mucosa must be described and the specific location of biopsies must be indicated. 4 quadrant biopsies should be taken every 1 or 2 cm, in addition to biopsies of any tongues and any areas with high risk features.

2.5 Gastroesophageal Junction (GE) Biopsy

Biopsy of the GE junction in patients with dyspepsia or reflux symptoms is not recommended unless an ulcer or lesion is present. GE junction biopsies should not be performed to “rule out Barrett’s esophagus” if there is no evidence of BE endoscopically.

2.6 Gastric Biopsy

If biopsies are being performed to assess for H. pylori gastritis, they should be submitted from both the antrum and the gastric body. This is particularly important if the patient has been on proton pump inhibitors. There should be 2 biopsies from the antrum, and 2 biopsies from the gastric body, submitted in a single container. Alternatively, biopsies for microbiology/rapid urease and culture are equally effective to diagnose H. pylori. Both histologic and microbiologic samples should not be routinely done. If erythema or superficial ulceration is present and is also biopsied, these biopsies can go in the same container. Diminutive (less than 5 mm) fundic gland polyps do not need to be biopsied.

2.7 Duodenal Biopsy

The reason for taking duodenal biopsies should be stated on the requisition, including results of serologic testing for Celiac disease if applicable. If there are no clinical findings to suggest celiac disease, biopsy of endoscopically normal duodenum or duodenal bulb in an immunocompetent patient is not recommended. If the patient is immunocompromised this should be clearly indicated on the requisition. If there are any other clinical reasons to take biopsies, these should be clearly mentioned.

When biopsy is indicated to exclude or assess for Celiac disease, at least 4 biopsy fragments should be submitted from second part of duodenum and 2 from the duodenal bulb.

2.8 Ileum Biopsy

Biopsy of normal appearing ileum for the purpose of documenting that the ileum has been reached is not indicated.

2.9 Colon Biopsy for IBD Dysplasia Surveillance

Guidelines now recommend careful endoscopic visualization with chromo-endoscopy (dye spray or virtual) with targeted biopsies of suspicious areas. High definition white light endoscopy with careful examination in non-high-risk individuals is an alternative practiced by some experts. Multiple random biopsies for dysplasia surveillance is of very low yield and is discouraged. Biopsies for different areas of the colon may still be performed to look for disease activity.

2.10 Colon Biopsy for Possible Microscopic Colitis

In the setting of chronic watery diarrhea when the mucosa is endoscopically normal, multiple biopsies should be submitted at most two containers – right colon (ascending and transverse), and left colon (descending, sigmoid and rectum). At least 4 fragments in total should be submitted. If additional biopsies of the rectum are being considered indicate why (ex. Rule out quiescent ulcerative proctitis).

2.11 Colonic Polyps

For polyps, the number and size of all polyps submitted should be noted on the pathology requisition for each biopsy submission. This information is needed to correlate with the histologic findings in order to provide accurate information for patient follow up in the pathology report.

Patients with high quality complete colonoscopy with completely removed polyps are not followed-up by endoscopy at a shortened interval (3 years) unless there are “high risk” adenomas, which includes adenoma ≥10mm, 3 or more adenomas (includes conventional and serrated adenomas), adenoma(s) with villous histology or adenoma with high-grade dysplasia. This includes SSA/Ps (now referred to as “sessile serrated lesions” by pathology per WHO

terminology) with dysplasia and/or greater than or ≥1 cm in size, and traditional serrated adenomas; and may also include large hyperplastic polyps (≥1 cm).

In addition to the polyp size and number, the requisition should indicate if the polyps are completely removed, and whether they are pedunculated, sessile or flat. Unless polyps are pedunculated with a well-defined stalk, or an endoscopic mucosal resection is performed, the pathologist does not generally comment upon the completeness of polypectomy, as this may not be possible to accurately assess in the histologic sections.

2.12 **Biopsies of a Lesion Suspicious for Malignancy**

It is extremely important to obtain multiple biopsies to avoid sampling limitations and to provide adequate tissue for specialized testing. Submission of at least 6-8 biopsy fragments is recommended.

3.0 **DEFINITIONS: N/A**

4.0 **CONTACT:**

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References:

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Revision & Approval History

Version #	Date	Reviewer	Action
2	01/21/2022	This guideline has been an inter-disciplinary initiative and has been approved by a specialized medical advisory group. **Medical Advisory Group:** Dr. Donald Duerksen, Head, Section of Gastroenterology, University of Manitoba Dr. Gabor Fischer, Medical Director, Anatomical Pathology, Shared Health.	Approved

		Dr. Jennifer Griffin, Head, Section of Pediatric Gastroenterology, University of Manitoba. Dr. Amin Kabani, Chief Medical Officer, Shared Health Diagnostics Dr. Julianne Klein, Chair, Quality Assurance & Standards Committees, Shared Health Pathology Dr. Jeremy Lipschitz, Regional Lead, General Surgery, University of Manitoba and WRHA Dr. Dana Moffatt, Medical Director, WRHA City Wide Endoscopic Services Dr. Harminder Singh, Director of Research, WRHA City Wide Endoscopic Services Dr. AbdulRazaq Sokoro, Executive Director, Provincial Laboratory Operations, Diagnostic Services Dr. Ross Stimpson, Medical Lead, ColonCheck, Cancer Care Manitoba Dr. Pamela Hebbard, Surgical Oncology, Cancer Care Manitoba Dr. Ramzi Helewa, Colon and Rectal Surgery, Endoscopy, and General Surgery, General Surgery Site Specialty Lead and Academic Lead, St. Boniface Hospital	
	6/29/2022	Provincial Clinical Leadership Team	Approved