High Risk Rectal Bleeding Pathway for Colorectal Cancer (CRC) Diagnosis

Quick links: Pathway primer | Expanded details | Provider resources | Patient resources

1. Symptoms of high risk rectal bleeding for CRC

- Blood visibly present in stool or in the toilet and not just on the tissue paper AND
- New onset or worsening and persistent rectal bleeding (i.e., not a single episode, present most days of the week for more than two weeks)

Investigations that should be carried out:

2. Medical history

Personal or family history of colorectal cancer, inflammatory bowel disease and the results of any previous lower endoscopic examinations within the past 3 years

3. Physical exam

Digital rectal examination is strongly recommended prior to referral and should be completed whenever possible.

4. Baseline investigations*

CBC, serum iron/TIBC and serum ferritin within 4 weeks of referral

5. Consider alarm features potentially concerning for CRC

- Palpable abdominal or rectal mass OR suspected lesion evidence of metastases seen on imaging

- New onset OR worsening and persistent rectal bleeding (i.e., not a single episode, present most days of the week for > 2 weeks) AND
- Unexplained (i.e., not investigated by lower endoscopy within 3 years) AND
- Associated with at least one of the following:
  - new or worsening anemia (Hb <130g/L in men, Hb <120g/L in women)
  - iron deficiency (serum ferritin <45ug/L)
  - new onset, persistent or worsening abdominal pain
  - new onset or progressive unintentional weight loss (≥5-10% of body weight over 6 months)
  - concerning change in bowel habit (e.g., increase or decrease in stool frequency, change in consistency - hard stool or loose stool)

Yes / No

6. Refer for colonoscopy

- **Urgent:** Palpable abdominal or rectal mass OR suspected lesion or evidence of metastases seen on imaging should be evaluated <2 weeks.
- **Semi-urgent:** High risk rectal bleeding with alarm features should be evaluated <8 weeks.**

For referral:
- Edmonton: FAST <Fax #> or see list of Surgeons and Gastroenterologists for urgent scope.
- Calgary: GI-CAT <Fax #> or see list of Surgeons and Gastroenterologists for urgent scope.
- Other Zones: see list of Surgeons and Gastroenterologists for urgent scope

7. Low-risk rectal bleeding pathway is under development.

See expanded details for helpful resources for management of low-risk rectal bleeding presentations.

*Patients meeting criteria for high risk rectal bleeding should not be doing FIT tests.

**If you feel your patient requires colonoscopy more urgently (i.e., within 2 weeks) please call RAAPID.

Appendix 2, as supplied by the authors. Appendix to: Pujadas Botey A, Barber T, Robson PJ, et al. Using care pathways for cancer diagnosis in primary care: a qualitative study to understand family physicians' mental models. *CMAJ Open* 2023. doi: 10.9778/cmajo.20220084.

Advice options | Background

PATHWAY PRIMER

- There are many causes of rectal bleeding. This pathway aims to identify patients with more worrisome rectal bleeding for urgent investigation of potential colorectal cancer.

- **Causes of Rectal bleeding**: in addition to colorectal cancer, potential causes of rectal bleeding include the following:
    - hemorrhoids
    - diverticular bleeding
    - colitis – infections, inflammatory or ischemic
    - ulcers
    - anal fissures
    - vascular malformations

- **Definition of Rectal Bleeding:** For the purpose of this high risk pathway, rectal bleeding (blood visibly present in stool or in the toilet and not just on the tissue paper) is defined as new onset or worsening and persistent bleeding (not a single episode, present most days of the week for more than 2 weeks).
    - The incidence colorectal cancer has been rising among patients less than age 50, but the absolute risk remains low. Adult patients of all ages can have high risk rectal bleeding, but the bleeding must be accompanied by the presence of other alarm features to be suitable for this pathway.

The Rectal Bleeding Primer listed below further explains the diagnosis of rectal bleeding.

Rectal Bleeding

Rectal bleeding is a common patient complaint and a frequent reason for referral. The vast majority of its causes are benign and do not require an expedited work-up. Thus, the challenge is to identify those who are more likely to have serious pathology. This pathway aims to identify patients who are more likely to have colorectal cancer as opposed to a benign entity. Despite the inclusion of potentially concerning signs and symptoms, in most patients the diagnosis will not be colorectal cancer. Triaging all patients with rectal bleeding as urgent referrals is not feasible and results in excessively high wait times for patients with other serious conditions.

- Patients with rectal bleeding from cancer typically have persistent and/or worsening bleeding associated with other red flag signs and symptoms. A careful initial history in addition to early follow-up to re-evaluate the patient is thus important.
- Patients with malignant bleeding are commonly iron deficient (low serum ferritin – see iron deficiency anemia pathway) and sometimes anemic. As such, lab work including a CBC, serum iron and transferrin saturation (iron/TIBC) along with a serum ferritin is a necessary pre-requisite for referral.
- Given the progressive nature of colorectal neoplasia, recent lab work must be evaluated in the context of prior results when available, e.g., dropping hemoglobin.
- A digital rectal examination is recommended for all patients prior to referral. The finding of a mass is an indication for urgent evaluation regardless of other findings.
- Note: flexible sigmoidoscopy is not sufficient for diagnostic work-up if presentation meets definition of high risk rectal bleeding.

EXPANDED DETAILS

This pathway focuses on rectal bleeding as the main presentation.

1. Symptoms of high risk rectal bleeding for colorectal cancer

- Blood visibly present in stool or in the toilet and not just on the tissue paper AND
- New onset or worsening AND
- Persistent (not a single episode – i.e. present on most days for > 2 weeks)

2. Medical history

- Personal or family history of colorectal cancer, inflammatory bowel disease. Alarm features (see 5 below) have a greater impact on how the referral will be triaged than personal or family history of colorectal cancer, inflammatory bowel disease.
- The results of any previous lower endoscopic examinations within the past 3 years.

3. Physical exam

- Digital rectal exam is strongly recommended prior to referral and should be completed whenever possible.
- If digital rectal exam cannot be completed due to pain, semi-urgent referral is still warranted.

4. Baseline investigations

- CBC, serum iron and transferrin saturation (iron/TIBC) and serum ferritin within 4 weeks of referral.
- Consider an abdominal ultrasound in patients reporting abdominal pain.
- For patients meeting criteria for high risk rectal bleeding, FIT test should not be done.

5. Consider alarm features potentially concerning for colorectal cancer

- Other features when present, are important to consider and may determine the urgency of the referral for endoscopic evaluation.
    - New or worsening anemia (Hb <130 g/L in men, Hb <120 g/L in women)
    - Iron deficiency (Serum ferritin < 45ug/L)
    - New onset, persistent or worsening abdominal pain
    - New onset or progressive unintentional weight loss (≥5-10% of body weight over 6 months)
    - Concerning change in bowel habit (increase or decrease in stool frequency, change in consistency – hard or loose stool)

6. Refer for urgent or semi-urgent colonoscopy

- **Urgent criteria (should be evaluated by colonoscopy within 2 weeks)**
    - Palpable abdominal or rectal mass OR suspected lesion or evidence of metastases seen on imaging AND
    - New or worsening and persistent (not a single episode, present on most days for > 2 weeks) rectal bleeding

- **Semi-urgent criteria (should be evaluated by colonoscopy within 8 weeks)**
    - New or worsening and persistent rectal bleeding (not a single episode, present on most days for > 2 weeks) AND
    - Unexplained (i.e., not investigated by lower endoscopy within 3 years) AND

Back to algorithm

- Associated with at least one of the following:
    - New or worsening anemia (Hb <130 g/L in men, Hb <120 g/L in women)
    - Iron deficiency (serum ferritin <45 ug/L)
    - New onset, persistent or worsening abdominal pain
    - New onset or progressive unintentional weight loss (≥5-10% of body weight over 6 months)
    - Concerning change in bowel habit (e.g., increase or decrease in stool frequency, change in consistency – hard or loose stool)

- If you feel your patient requires colonoscopy **more urgently (i.e., within 2 weeks)** please call RAAPID.
- Referral content requirements:
    - The above history
    - Relevant past medical history: personal or family history of colorectal cancer, inflammatory bowel disease and the results of any previous lower endoscopic examinations within the past 3 years.
    - CBC, serum iron and transferrin (iron/TIBC) and serum ferritin within 4 weeks of referral plus all recent results within the past 2 years.
    - Findings on digital rectal exam or explanation of why it was not possible to complete.
    - The patient must be aware of the referral.

7. Low risk rectal bleeding pathway is under development

- Provider Resources for managing low-risk rectal bleeding are being compiled.
- If patient does not meet criteria for high risk rectal bleeding, monitor and re-evaluate to determine when referral may become appropriate. Persistent or unexplained symptoms should trigger need for investigation.

BACKGROUND

About this Pathway

- The creation of the Colorectal Cancer Diagnosis Pathway builds on the success of previous pathways including lung, breast and prostate cancer. Building out multiple cancer diagnosis pathways has begun to create end-to-end pathways for cancer patients in Alberta on a provincial scale with the goals of expedited cancer diagnosis and providing better support to patients through that process.
- Initial work on this pathway was started in May 2019 and is being implemented over two years. Patients, providers and administrators from relevant areas were brought together to gather information on current experiences with colorectal cancer diagnosis, collect data on how the system is performing and review best practice evidence. Provincial principles of care, strategic areas for improvement in Alberta and a provincial measurement and reporting framework were defined.
- Primary Care providers were engaged to co-design pathways with patients, gastroenterologists, colorectal surgeons and GI intake programs.
- Local implementation teams will be engaged in work around planning and pathway roll-out, determination of barriers and facilitators, and shared learnings with other sites. Performance dashboard reports will be developed and disseminated to provide feedback to clinical teams on pathway performance and outcomes. Sustainability planning will be initiated early with implementation teams to ensure successful transition of pathways to operations at the end of the initiative.

Authors & Conflict of Interest Declaration

This pathway was reviewed and revised under the auspices of the Cancer Strategic Clinical Network (CSCN) in 2020 by a multi-disciplinary team led by family physicians, gastroenterologists and colorectal surgeons. For more information, contact the CSCN at Cancer.SCN@ahs.ca.

Pathway Review Process

Specialty access pathways undergo scheduled review every three years, or earlier, if there is a clinically significant change in knowledge or practice. The next scheduled review is June 2023. However, we welcome feedback at any time. Please email comments to Cancer.SCN@ahs.ca.

Copyright Information

Disclaimer

This pathway represents evidence-based best practice, but does not override the individual responsibility of health care professionals to make decisions appropriate to their patients using their own clinical judgment given their patients' specific clinical conditions, in consultation with patients/alternate decision makers. The pathway is not a substitute for clinical judgment or advice of a qualified health care professional. It is expected that all users will seek advice of other appropriately qualified and regulated health care providers with any issues transcending their specific knowledge, scope of regulated practice or professional competence.

PROVIDER RESOURCES

Advice Options

Non-urgent advice is available to support family physicians.

- Gastroenterology advice is available across the province via Alberta Netcare eReferral Advice Request (responses are received within five calendar days). Visit www.albertanetcare.ca/documents/Getting-Started-Advice-Requests-FAQs.pdf for more information.
- Non-urgent telephone advice connects family physicians and specialists in real time via a tele-advice line. Family physicians can request non-urgent advice from a gastroenterologist:
    - In the Calgary Zone at specialistlink.ca or by calling 403-910-2551. This service is available from 8:00 a.m. to 5:00 p.m., Monday to Friday (excluding statutory holidays). Calls are returned within one hour.
    - In the Edmonton and North Zone by calling 1-844-633-2263 or visiting www.pcnconnectmd.com. This service is available from 9:00 a.m. to 6:00 p.m., Monday to Thursday and 9:00 a.m. to 4:00 p.m., Friday (excluding statutory holidays and Christmas break). Calls are returned within two business days.

PATIENT RESOURCES

Information

Description	Website
Rectal Bleeding: Care Instructions	https://myhealth.alberta.ca/Health/aftercareinformation/pages/conditions.aspx?hwid=ut1924

Services Available

Description	Website