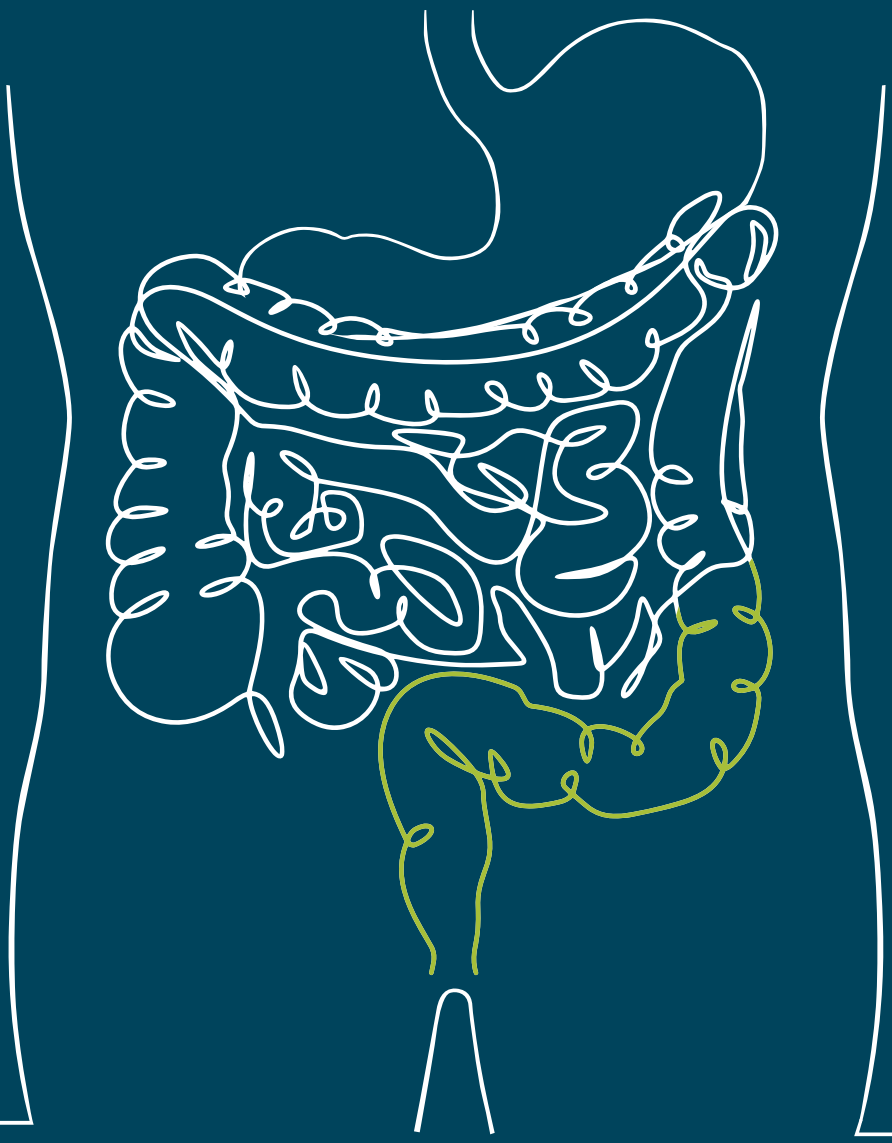
CLINICAL PRACTICE GUIDE

NSW colonoscopy categorisation

AUGUST 2020



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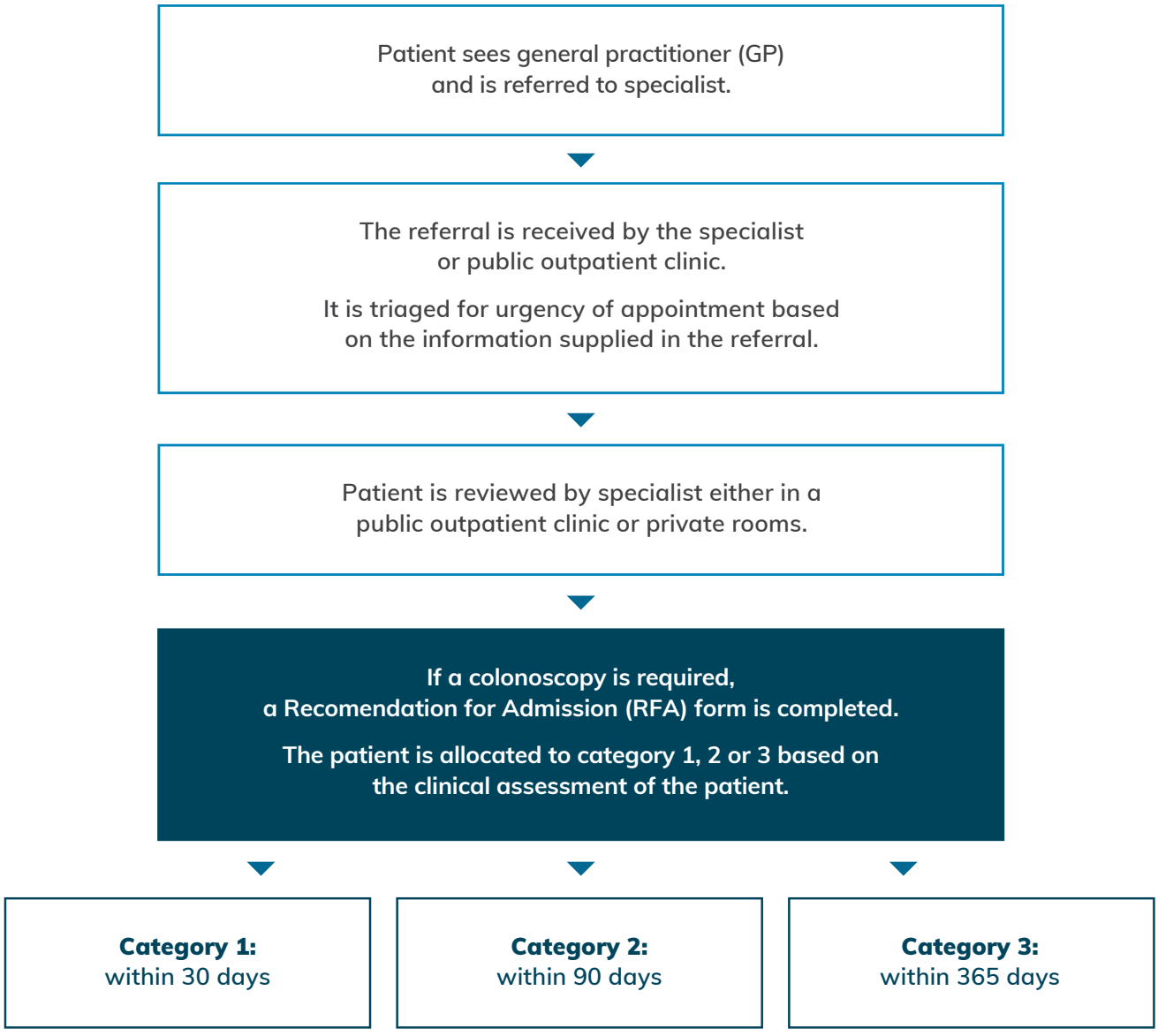
Contents

NSW colonoscopy categorisation at a glance

This Guide reflects the patient's journey from the point in time a colonoscopy has been agreed as the preferred investigation/treatment option by the patient and GP.

Patients who require urgent intervention are excluded from the scope of this Guide.

Figure 1. NSW public health colonoscopy pathway



Section 1: **Guide overview**

High quality, timely colonoscopy is critical to the early detection and treatment of bowel cancer and other gastrointestinal conditions. Increasing demand for colonoscopy services has led to the need for criteria for the categorisation and prioritisation of patients presenting to NSW public hospital colonoscopy services.

The *NSW Colonoscopy Categorisation Clinical Practice Guide* aims to aid clinicians who receive colonoscopy referrals in triaging patients.

It is intended to support gastroenterologists, surgeons, general practitioners (GPs), clinical nurse consultants, GP endoscopists and waiting list managers to appropriately manage colonoscopy services. It aims to:

- assist gastroenterologists, colorectal surgeons and GP surgeons in the prioritisation of colonoscopy bookings
- align with the implementation of the direct access colonoscopy initiative that is part of the state's Leading Better Value Care program.

Three priority categories

There are three clinical priority categories for patients who require a colonoscopy. Each category has a defined period within which patients should receive colonoscopy:

- Category 1: within 30 days
- Category 2: within 90 days
- Category 3: within 365 days.#

Referred patients are assessed in terms of critical factors (e.g. positive immunochemical faecal occult blood test (+iFOBT); unexplained anaemia and rectal bleeding) and patient characteristics (e.g. age) for allocation to one of these categories (Table 1).

Methods

This document is a revision of the *Colonoscopy Categorisation Guide (2007)*. Its production was led by the Gastroenterology Network Colonoscopy Categorisation Working Party of the Agency for Clinical Innovation (ACI), with the support of the Cancer Institute NSW, Ministry of Health and other key stakeholders (see *Acknowledgements*, page 13).

In 2018, the Cancer Institute NSW held a workshop on improving public colonoscopy access after a +iFOBT. The workshop demonstrated that NSW lacked specific guidance on how clinical criteria are applied to colonoscopy classifications and waiting times.

The guide does not replace local decision-making processes and should be underpinned by local models of care. It is understood that each local health district (LHD) will be responsible for its own implementation protocols.

Although the categories align with the *NSW Health Waiting Time and Elective Surgery Policy Directive PD2012_011*, the guidance in this document is based on a review of evidence and broad clinical input.

Section 2: **Colonoscopy categorisation criteria**

Table 1. NSW Colonoscopy categorisation criteria

Factor	Category 1: <30 days	Category 2: <90 days	Category 3: <365 days (surveillance)
NSW Ministry of Health definition of category	Procedure within 30 days desirable for a condition that has the potential to deteriorate quickly to the point that it may become an emergency **OR** admission within 30 days. High likelihood of significant organic pathology. Admission within 30 days desirable for conditions likely to deteriorate.	Procedure within 90 days desirable for a condition which is not likely to deteriorate quickly or become an emergency **OR** admission within 90 days lower likelihood of significant organic pathology or deterioration.	Patients who are unlikely to deteriorate quickly and which have little potential to become an emergency **OR** staged patients: Planned patients where a patient requires treatment periodically. A *Not Ready for Care* patient is a patient who is not available to be admitted to hospital until some future date, and is *Staged – not ready for clinical reasons.* The definition of staged from the wait time and elective surgery policy can be found in the *NSW Health Waiting Time and Elective Surgery Policy Directive PD2012_011.*
1. +iFOBT	Clinically appropriate +iFOBT	Other +iFOBT#	
2. Unexplained iron deficiency or unexplained anaemia	Unexplained iron deficiency **OR** unexplained anaemia **AND EITHER** any other critical factor* **OR** one or more other symptoms	Iron deficiency with no critical factors* or other symptoms (any age)	
3. Rectal bleeding	Rectal bleeding **AND** any one of: • any other critical factor* • <12 months duration, age ≥50 years • <12 months with one or more other symptom, age <50 years	Rectal bleeding <12 months duration **AND** no other critical factor* or other symptom **AND** age <50 years (note: Local investigation may be appropriate)	Rectal bleeding >12 months
4. Altered bowel habit	Altered bowel habit (>6 weeks and <12 months) **AND** any critical factor*	Altered bowel habit (>6 weeks and <12 months) **AND** no critical factor*	
5. Unexplained abdominal pain	Unexplained abdominal pain **AND** any critical factor*	Unexplained abdominal pain **AND** no critical factor*	
6. Unexplained significant weight loss	Unexplained significant weight loss **AND** any critical factor*	Unexplained weight loss **AND** no critical factor NOTE: Weight loss is not indicated for no critical factor* + symptoms + normal examination + normal MCH/MCV/iron studies	

Factor	Category 1: <30 days	Category 2: <90 days	Category 3: <365 days (surveillance)
7. Mass	Palpable rectal or abdominal mass **OR** mass present on rigid/flexible sigmoidoscopy **OR** likely colorectal mass on imaging		
8. Adenocarcinoma of unknown primary	Adenocarcinoma of unknown primary		
9. Colorectal cancer surveillance (post colon cancer resection)		Post colorectal resection with incomplete colonoscopy or incomplete clearance of polyps preoperatively. Complete examination of colon (if not done preoperatively)	Family history or personal history (refer to current *National Health & Medical Research Council (NHMRC) Clinical Practice Guidelines for Surveillance Colonoscopy* (section: *Colonoscopy after curative resection for colorectal cancer*))
10. Polyp management and surveillance	Polyps requiring referral for excision or incomplete polypectomy requires surveillance as per *NHMRC Clinical Practice Guidelines for Surveillance Colonoscopy*		Surveillance colonoscopy after polypectomy (refer to current *NHMRC Clinical Practice Guidelines for Surveillance Colonoscopy* (section: *Colonoscopic surveillance after polypectomy*))
11. Suspected inflammatory bowel disease (IBD)	Suspected IBD **AND** any one of: • any critical factor* or other symptom • calprotectin (+) • raised C-reactive protein or erythrocyte sedimentation rate • iron deficiency • low albumin • abnormal rigid/flexible sigmoidoscopy		Surveillance procedure (refer to current NHMRC *Clinical Practice Guidelines for Surveillance Colonoscopy* (section: *Colonoscopic surveillance and management of dysplasia in inflammatory bowel disease*))

* Critical factors: +iFOBT, unexplained anaemia, rectal bleeding, age ≥60.

E.g. +iFOBT in a <50-year-old patient without other critical factors or other symptoms.

Section 3: **Explanatory notes**

Assessment prior to colonoscopy referral

The GP must complete an adequate assessment prior to referral for colonoscopy. The assessment could include:

- taking a history of symptoms
- relevant medical background information, including current medications
- physical examination
- appropriate investigations (full blood count, ferritin, iFOBT in the symptomatic patient)
- prior colonoscopy reports and histology if available.

Colonoscopy clinical priority categorisation process

A clinical priority category is part of the Recommendation for Admission (RFA) form.

The RFA should include the proposed Medicare Benefits Schedule (MBS) item number to facilitate billing and audit. Investigations that have guided the assignment of a clinical priority category should be attached to the RFA.

Current NSW colonoscopy categories 1, 2 and 3 relate to procedures that are clinically recommended within 30, 90, or 365 days respectively from the date of receiving the RFA/referral for colonoscopy.

Table 2. Clinical priority categories

Clinical priority category A clinical assessment of the priority with which a patient requires elective admission#	
Category 1	Procedure clinically indicated within 30 days
Category 2	Procedure clinically indicated within 90 days
Category 3	Procedure clinically indicated within 365 days

Patients requiring urgent intervention are outside the scope of this Guide.

The date stamped on the RFA by the receiving booking officer is the date used for waiting list registrations. This is the listing date and is the commencement of the waitlist period. This is in alignment with the *NSW Health Waiting Time and Elective Surgery Policy Directive PD2012_011*. Allocation of colonoscopy dates is ideally undertaken by the hospital to ensure equity of access between patients referred from the outpatient clinic and patients referred directly from private consultation rooms.

Categorisation of patients according to the Guide can be carried out by clinicians with the necessary expertise. This may be gastroenterologists, surgeons, GP endoscopists, GPs or clinical nurse consultants. Waiting list managers with appropriate clinical expertise may also be involved in the categorisation process.

Patients identified as requiring urgent colonoscopy can be escalated and would require emergency admission, for example impending large bowel obstruction. The management of these patients is outside the scope of this Guide.

Rationale for multiple colonoscopy timeframes

The requirement for colonoscopy within 30 days (Category 1) is supported by evidence that suggests that there is a low risk for change in cancer stage when the colorectal cancer is identified in this timeframe.[1]

There are multiple clinical scenarios, including iFOBT, where the clinical priority category needs to be identified.

Time elapses from the patient receiving the referral from the GP, to the review and categorisation by the colonoscopist, to the final submission of the RFA. The potential psychological impact of waiting for a test to exclude cancer has been considered in the development of the Guide.

Surveillance colonoscopy categorisation

For guidance on surveillance colonoscopy, refer to *Clinical Practice Guidelines for Surveillance Colonoscopy (2019)*, which are approved by the National Health and Medical Research Council.[2]

Patients referred for surveillance colonoscopy prior to the recommended interval should be assessed for the presence of new symptoms, laboratory abnormalities, previous colonoscopy quality (if available) and family history. In the absence of new findings or other factors, these patients should be referred back to their GP for monitoring and scheduled for a colonoscopy at an appropriate time in the future.

The surveillance period may vary depending on the quality of a previous colonoscopy (for example, taking into account the quality of preparation or colonoscopist's performance).

Critical factors

Patients who have been referred for possible colonoscopy are assessed on critical factors and other symptoms.

The following critical factors support the clinician in the colonoscopy categorisation process.

Clinically appropriate +iFOBT

In addition to the recognised use of iFOBT for screening, evidence suggests that the addition of an iFOBT may be useful in the assessment of symptomatic patients.[1, 3-5] Therefore, a +iFOBT will prioritise symptomatic patients to Category 1 (<30 days). Conversely, a -iFOBT may reduce the urgency in symptomatic patients.

While a +iFOBT suggests clinical categorisation Category 1, Category 2 or 3 may be allocated after clinical review. For example, +iFOBT in a <50 year old patient without other critical factors or other symptoms would likely be allocated Category 2 (<90 days) with a prioritised pathway.

Unexplained anaemia

Anaemia has been shown to have a positive predictive value (PPV) for colorectal cancer of 9.7% (3.5-27).[6] This association is not restricted to iron deficiency anaemia.

Rectal bleeding

Rectal bleeding alone has a PPV of ~2.4% for colorectal cancer.[7] Colorectal cancer risk is increased further if other factors are present, such as advanced age or new onset of bleeding. The exact nature of the bleeding is subjective (for example, cancer is thought to be more likely if the blood is darker). This Guide considers all rectal bleeding.

The role of digital rectal examination in categorisation is debated. Consider digital rectal examination for patients with rectal bleeding for whom a delay in colonoscopy is anticipated.

In a patient with prolonged (>12 months) bright red rectal bleeding without other symptoms, it may be reasonable to perform sigmoidoscopy and treat an underlying cause (such as haemorrhoids) if found, before embarking upon full colonoscopy. The clinician should explain to the patient that additional causes, such as cancer, might be present and have not been excluded. There should be very close observation/ follow-up by the treating doctor.

Age ≥60 years

Age is an independent risk factor for colorectal cancer, but it is noted that colorectal cancer does occur in young patients. Young patients often present late because of the incorrect belief that colorectal cancer is an ‘old person’s disease’.

The increased risk curvilinear, with an upwards inflection at 50-65 years of age.[8]

Other symptoms may include:

- altered bowel habit
- unexplained abdominal pain
- unexplained weight loss.

Clinical scenarios

These clinical scenarios present examples of critical factors and other symptoms.

CLINICAL SCENARIO 1.
Clinically appropriate +iFOBT

Adverse change in stage of colorectal cancer at diagnosis with a delayed colonoscopy suggests that +iFOBT should prioritise patients to Category 1 (< 30 days).[1, 3-5]

+iFOBT is the currently recommended screening stool test for the detection of colorectal cancer with a sensitivity of 79% (69-86) and specificity of 94% (92-95).[1, 3-5]

The negative predictive value of -iFOBT is somewhat reassuring, at about 99%.[9] The presence of a -iFOBT does not eliminate the possibility of colorectal cancer and should not rule out colonoscopy, particularly if other critical factors or symptoms are present. A -iFOBT however, may change the prioritisation category.

Note

- iFOBT is not appropriate in the presence of rectal bleeding.
- The iFOBT does not test for upper gastrointestinal blood loss.

CLINICAL SCENARIO 2.
Unexplained iron deficiency or unexplained anaemia

Alternative explanations for iron deficiency or anaemia should be considered and possibly treated prior to referral for colonoscopy.

If a cause for iron deficiency or anaemia is not identified, or if treatment has not been successful, then the patient should be referred for consideration of colonoscopy.[10] Prioritisation will depend on critical factors or other symptoms.[11]

Unexplained anaemia has been shown to have a PPV for colorectal cancer of 9.7% (3.5-27).[7] This association is not restricted to iron deficiency. In one study 18% of patients with colorectal cancer had normocytic anaemia.[13]

Transferrin saturation has been shown to be inversely associated with colorectal cancer at diagnosis. Ferritin may be elevated as an acute phase reactant, especially in advanced colorectal cancer.[13]

CLINICAL SCENARIO 3.
Rectal bleeding

Rectal bleeding is a strong predictor of colorectal cancer[14] and a critical factor. Colonoscopy should be performed for bleeding not previously investigated or new onset or new pattern of rectal bleeding.

Rectal bleeding alone has a PPV of ~2.4% for colorectal cancer.[7] The likelihood of colorectal cancer is increased further if additional critical factors or other symptoms are present, such as advanced age, change in bowel habit or weight loss. Colorectal cancer is said to be more likely if the bleeding is darker and/or mixed with mucus, but since this distinction is somewhat subjective this Guide considers all rectal bleeding.

The role of digital rectal examination is debated. It should be considered in the patient presenting with rectal bleeding in whom delay for further investigation is anticipated.

Rectal bleeding that has been present for >12 months and in the absence of any other signs or symptoms is unlikely to be due to colorectal cancer.

CLINICAL SCENARIO 4.
Altered bowel habit

Altered bowel habit is any change from the patient's usual pattern of bowel motions. Examples are diarrhoea, constipation or a feeling of incomplete evacuation persisting longer than six weeks.

Defining significantly altered bowel habit requires clinical judgement. Changes for <6 weeks may be related to other factors, such as infection, dietary change, stress or new medications. Changes (especially constipation) present for >12 months are unlikely related to colorectal cancer. The presence of critical factors or other symptoms may lead to a change in prioritisation category.

Additional tests may be obtained to help estimate the priority, as this presentation can have a large differential diagnosis. iFOBT, full blood count and faecal calprotectin may contribute to the estimate of urgency to colonoscopy.

CLINICAL SCENARIO 5.
Unexplained abdominal pain

There is a range of other abdominal and non-abdominal conditions that may explain abdominal pain. Therefore the term 'unexplained' is central to the consideration of this scenario.

Clinical judgement is important when assessing patients presenting with abdominal pain. Abdominal pain has a PPV for colorectal cancer of 3.3% (0.7–16%).[12]

Frequent episodes of pain and a history of <12 months have been associated with a greater likelihood of colorectal cancer.[12]

CLINICAL SCENARIO 6.
Unexplained weight loss

Weight loss alone is a poor predictor of colorectal cancer (PPV 1.2%)[12] but is important in the presence of other symptoms[14]. The degree and recency of weight loss described in the literature is inconsistent.

CLINICAL SCENARIO 7.
Palpable mass or mass on imaging possibly explained by colorectal cancer

A suspected colorectal cancer identified by examination or imaging the mass will prioritise patients to Category 1 (<30 days).

CLINICAL SCENARIO 8.
Adenocarcinoma of unknown origin

Colorectal cancer is unlikely to be the cause in the absence of critical factors or other symptoms. Other investigations such as cross-sectional imaging or PET should precede colonoscopy.

CLINICAL SCENARIO 9.
Colorectal cancer surveillance

Surveillance pertains to three situations:

1. Full colonoscopy if incomplete prior to colorectal cancer resection
2. Clearance of the colon of known polyps which were not removed prior to colorectal cancer resection
3. Ongoing surveillance after colorectal cancer resection, as per the *Clinical Practice Guidelines for Surveillance Colonoscopy.*[2]

CLINICAL SCENARIO 10.
Colorectal polyp management and surveillance

Some patients have a known polyp that has not been completely removed due to size or complexity. Refer to guidance on surveillance post-polypectomy – see the *Clinical Practice Guidelines for Surveillance Colonoscopy.*[2]

CLINICAL SCENARIO 11.
Suspected inflammatory bowel disease (IBD)

Patients with suspected IBD require colonoscopy for biopsy confirmation of diagnosis, assessment of extent of disease or response to therapy. Differentiation from other aetiologies such as infection or irritable bowel syndrome may be supported by history, physical examination and other investigations. These investigations include faecal calprotectin, faecal pathogens, full blood count and C-reactive protein (CRP) test.[15]

CLINICAL SCENARIO 12.
Surveillance

Refer to the National Health & Medical Research Council (NHMRC) endorsed *Clinical Practice Guidelines for Surveillance Colonoscopy.*[2]

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Glossary

Colonoscopy	Diagnostic/therapeutic examination of the colon with a colonoscope
CCSG	Colonoscopy Categorisation Steering Group
CCWG	Colonoscopy Categorisation Working Group
CPC	Clinical priority category
CRC	Colorectal cancer
CRP	C-reactive protein
DAC	Direct access colonoscopy, a clinical initiative of the Leading Better Value Care program
IBD	Inflammatory bowel disease
IDA	Iron deficiency anaemia
iFOBT	Immunochemical faecal occult blood test (also known as faecal immunochemical test or FIT).
LHD	Local health district
MCH	Mean corpuscular hemoglobin
MCV	Mean corpuscular volume
NHMRC	National Health & Medical Research Council
PET	Positron emission tomography
PPV	Positive predictive value
RFA	Request for admission
Screening	Investigation of an individual at standard risk of a condition, usually defined as a single time-point
Surveillance	The longitudinal investigation of an individual with respect to a condition. The use of this term in colorectal cancer usually implies increased risk for that individual
the Guide	NSW Colonoscopy Categorisation Clinical Practice Guide

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