

Inside Out: Gastroenterology & Hepatology Workshop

Saturday 25 October 2025
Clinical Skills Development Service |
RBWH



Polyp surveillance

Dr Timothy O'Sullivan
Staff Specialist
Gastroenterology | RBWH & STARS



**Metro North
Health**



**Queensland
Government**

POLYP SURVEILLANCE IN 2025

DR TIM O'SULLIVAN (MBBS, PHD, FRACP)
ROYAL BRISBANE AND WOMEN'S HOSPITAL
SURGICAL TREATMENT AND REHABILITATION SERVICE
GASTRO SERVICES EASTERN ENDOSCOPY CENTRE





No disclosures

Colorectal cancer in Australia

- ▶ Fourth most common malignancy
- ▶ Second highest cause of cancer-related death
- ▶ Historically third highest driver of cancer-related health expenditure

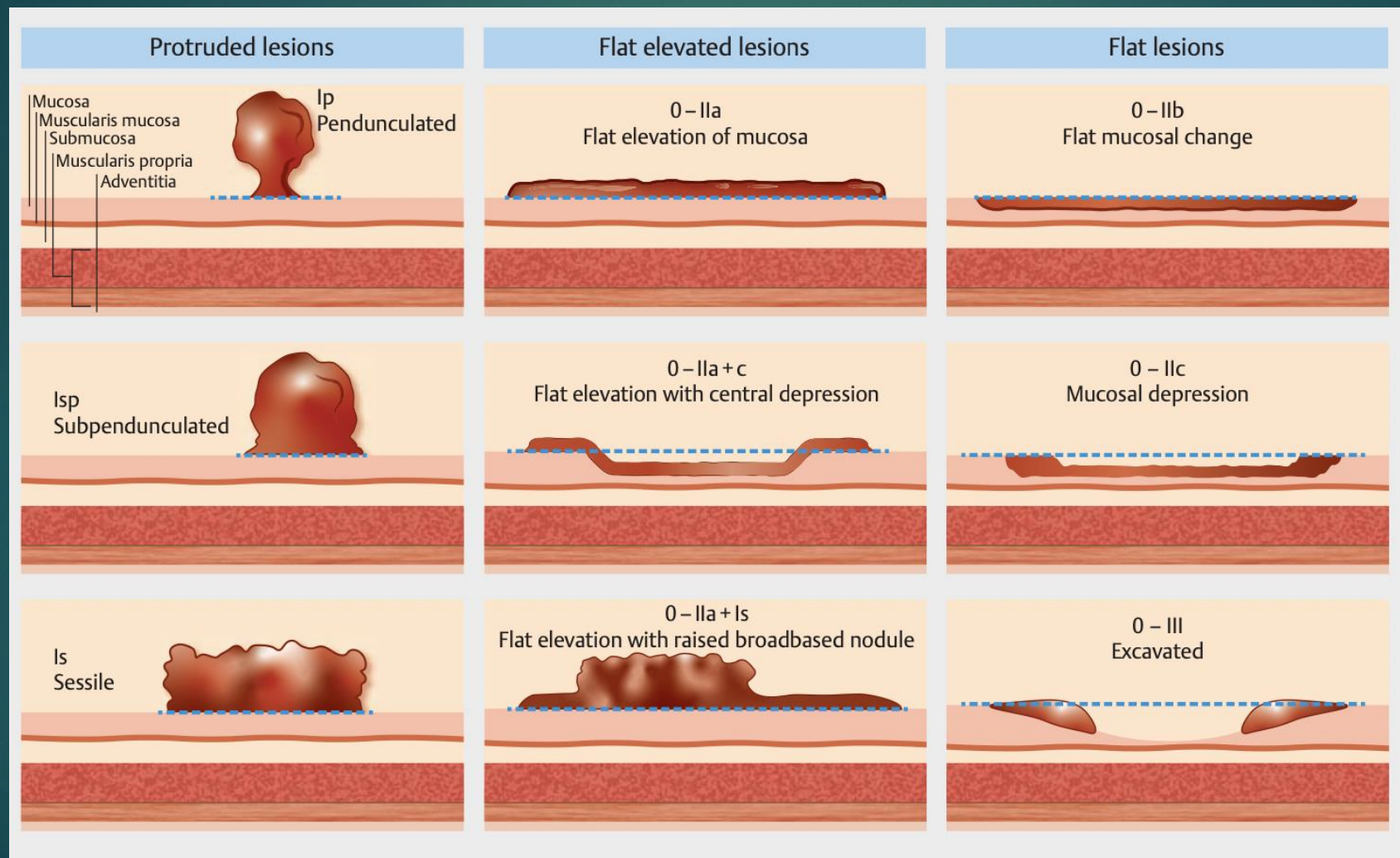


Role of polypectomy

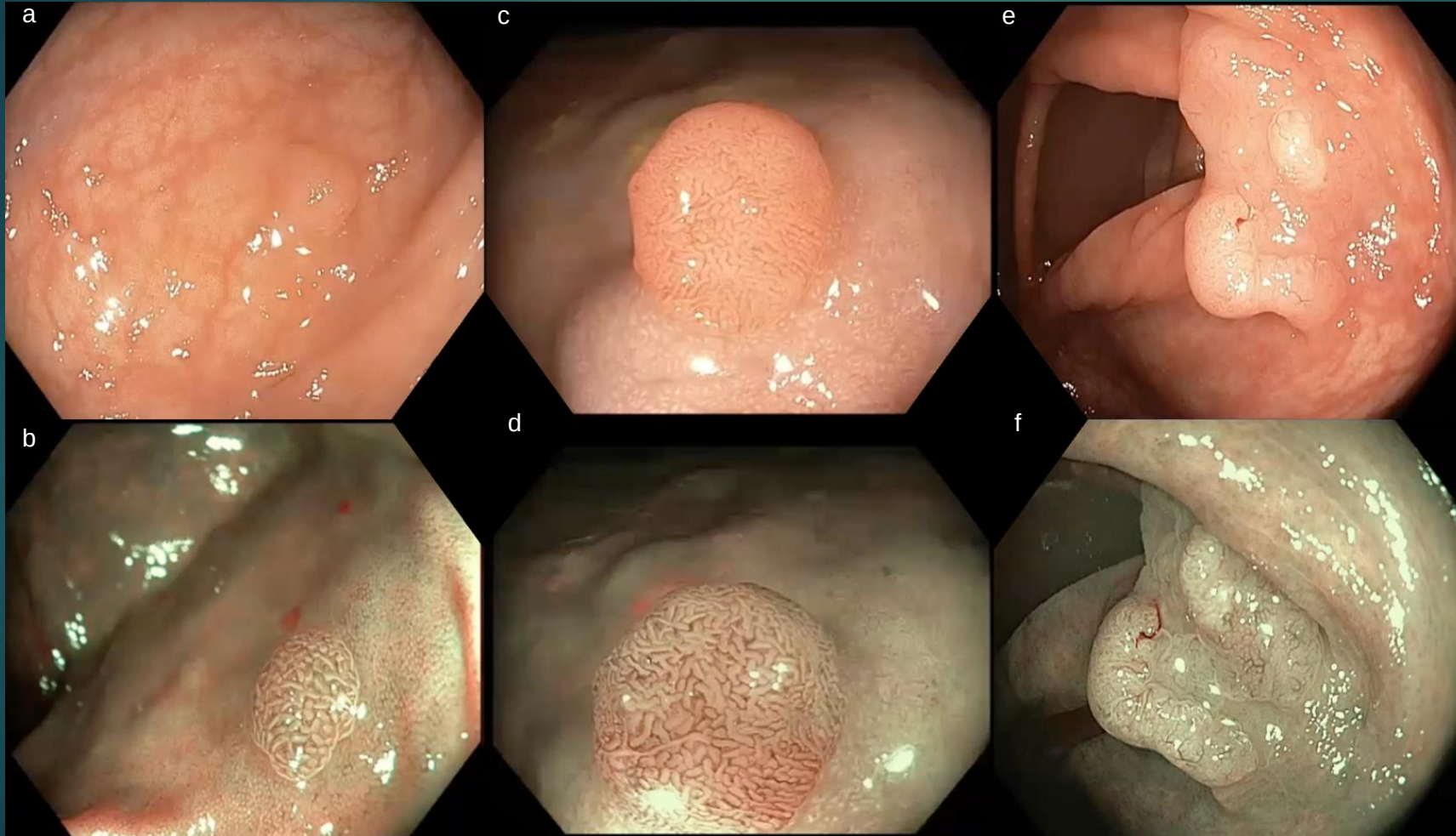
- ▶ Early detection and removal of precursor neoplastic polyps
 - ▶ Foundation of CRC prevention
- ▶ Reduces incidence and mortality of colorectal cancer
 - ▶ >75% and 50%.



Polyps

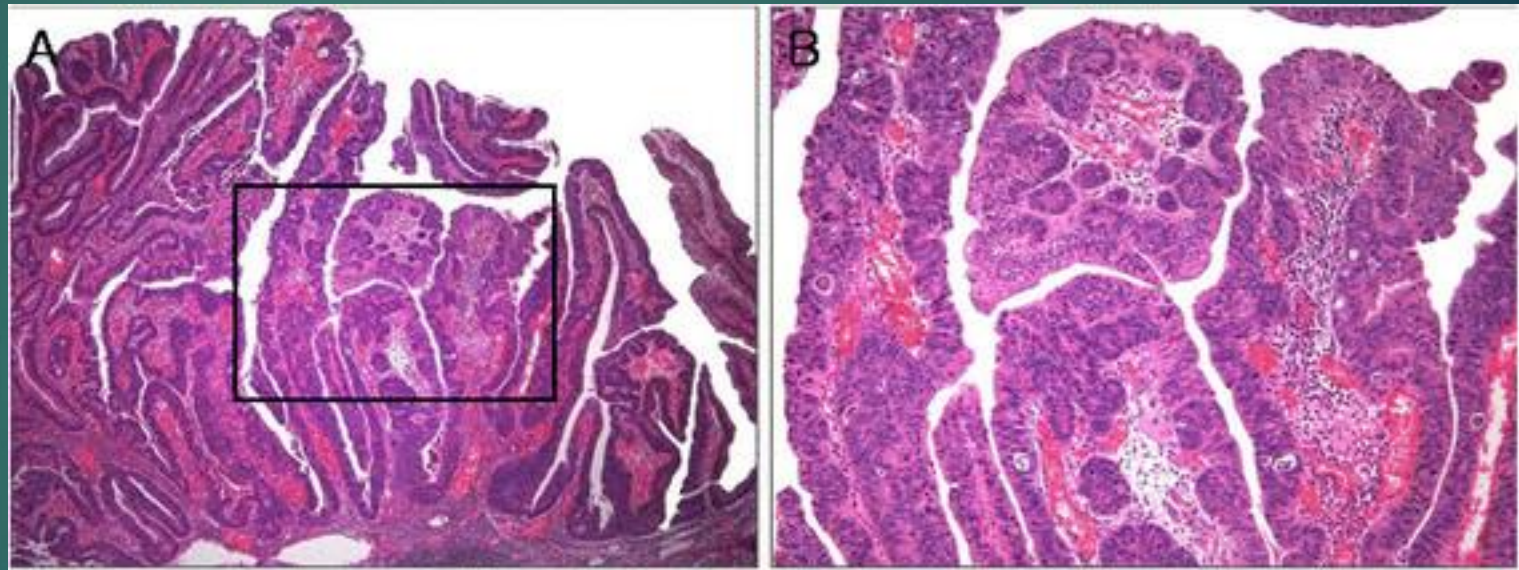


Serrated vs Adenoma



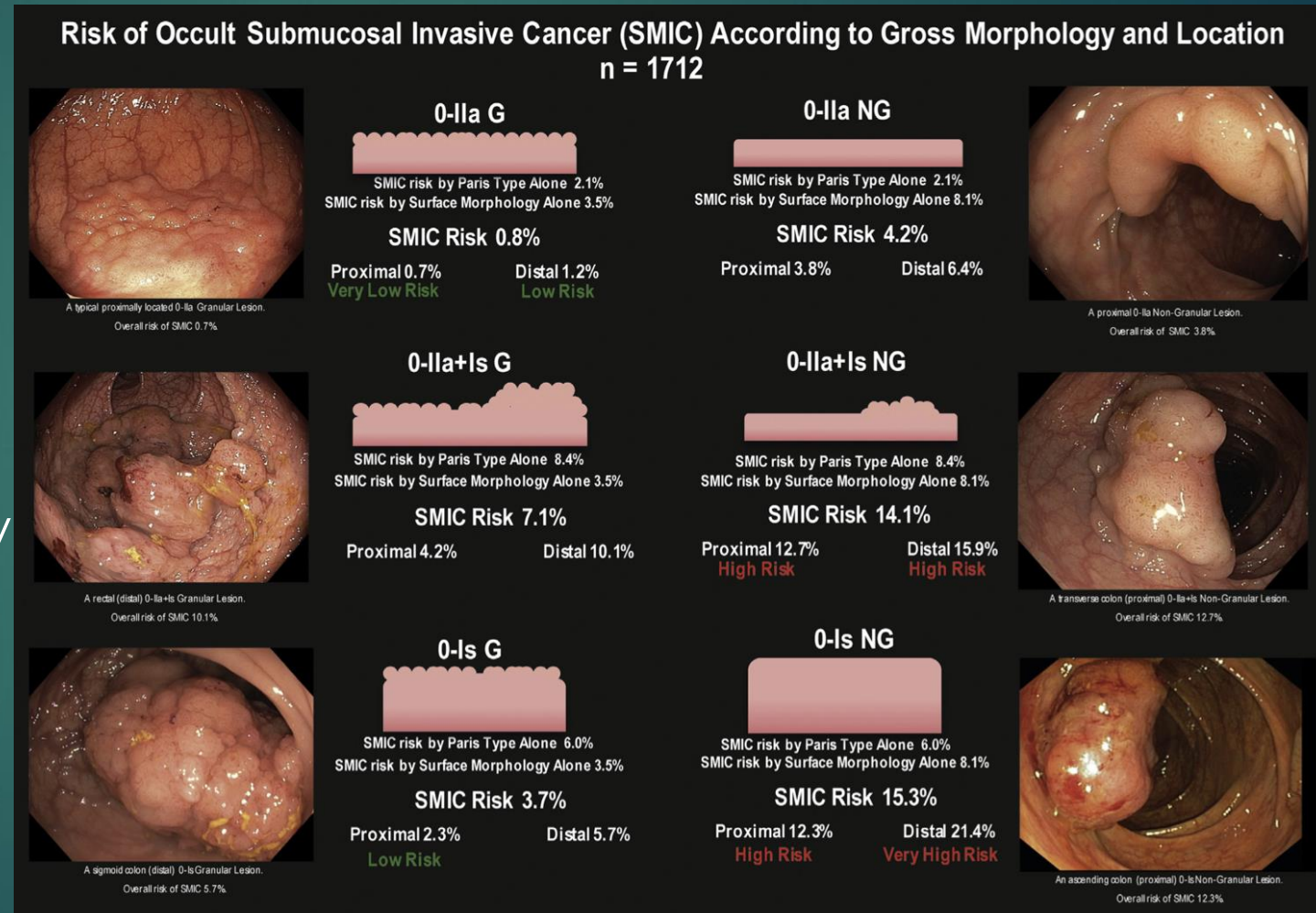
Advanced Polyps

- ▶ Size 10mm
- ▶ Villosity
- ▶ High grade dysplasia

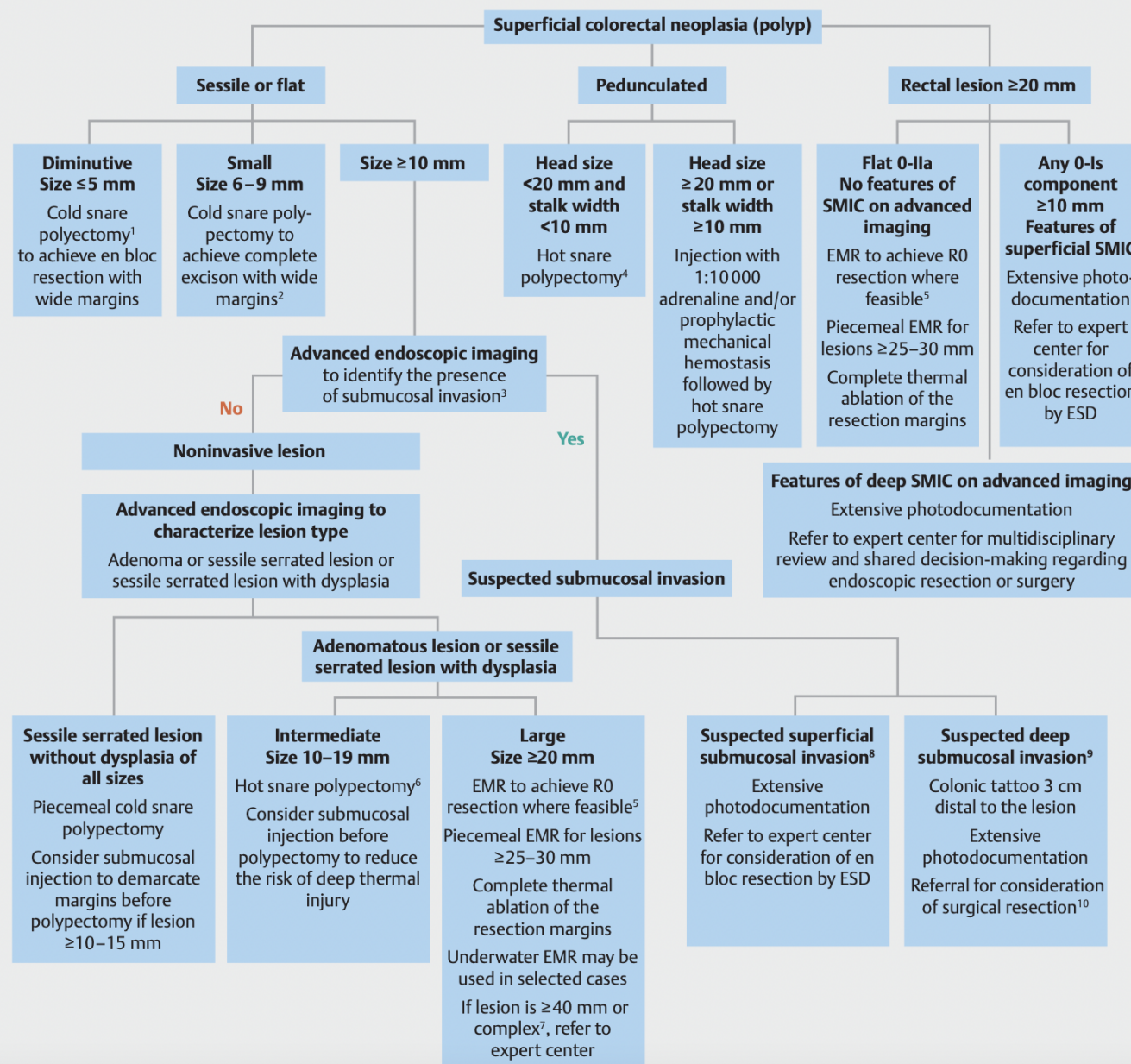


Large non-pedunculated colonic polyps

- ▶ Larger
- ▶ Greater risk of cancer
- ▶ Differing resection modality
- ▶ Complications



ENDOSCOPIC RESECTION IN 2025

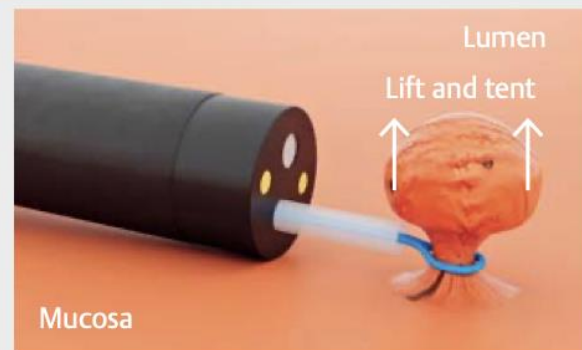


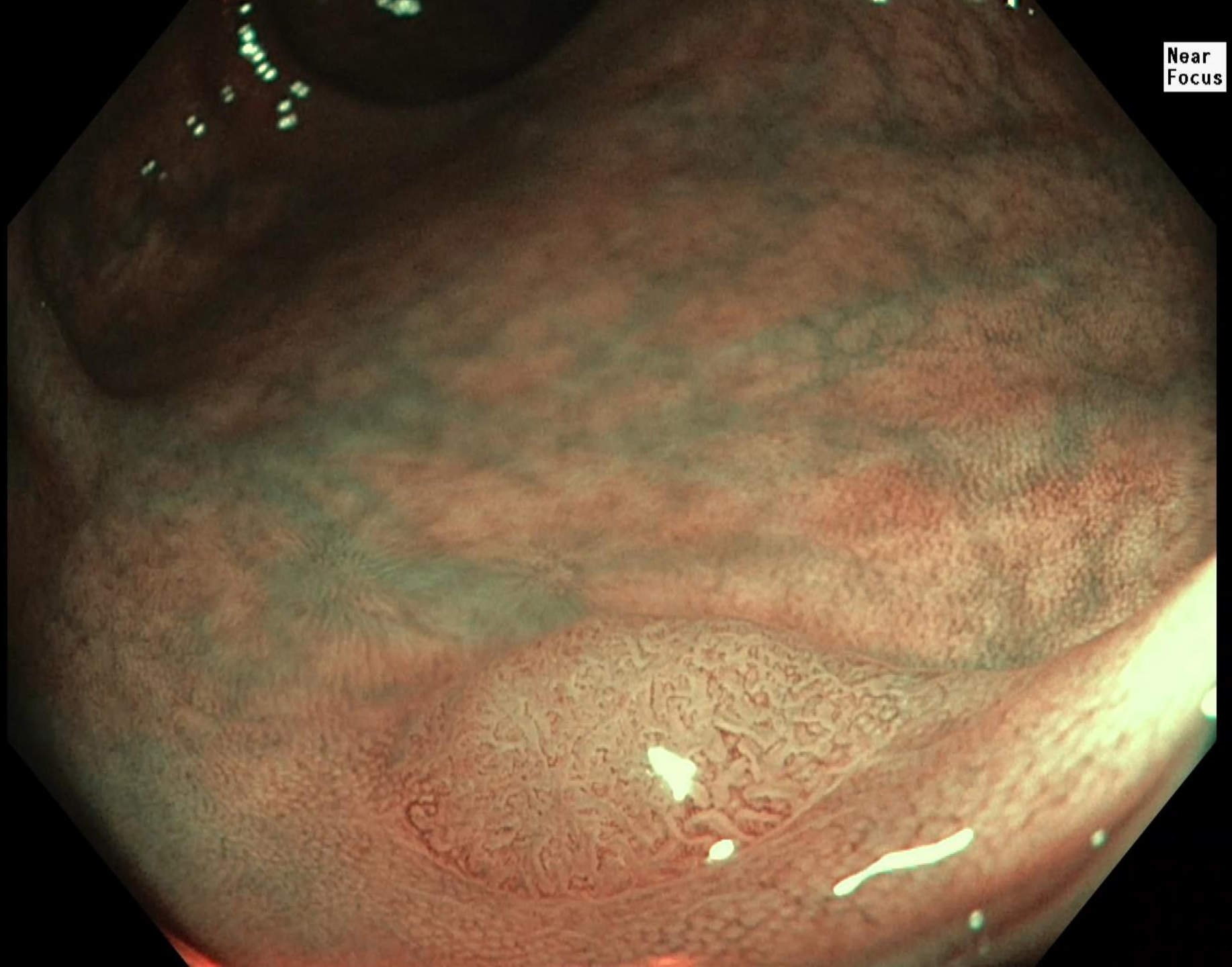
Cold snare polypectomy

Cold snare polypectomy

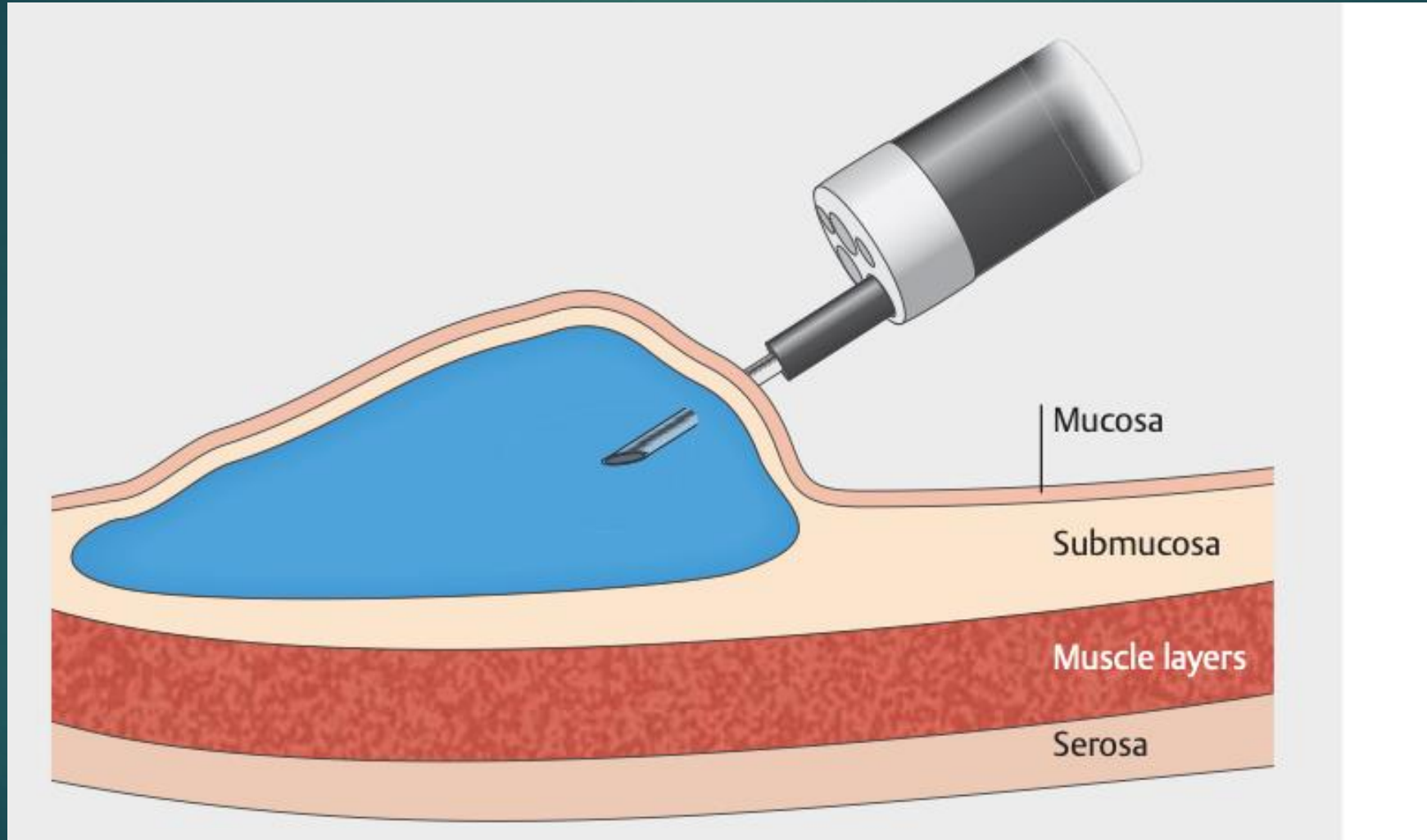


Hot snare polypectomy





Cold Endoscopic Mucosal Resection (EMR)



18
8157
0
A7



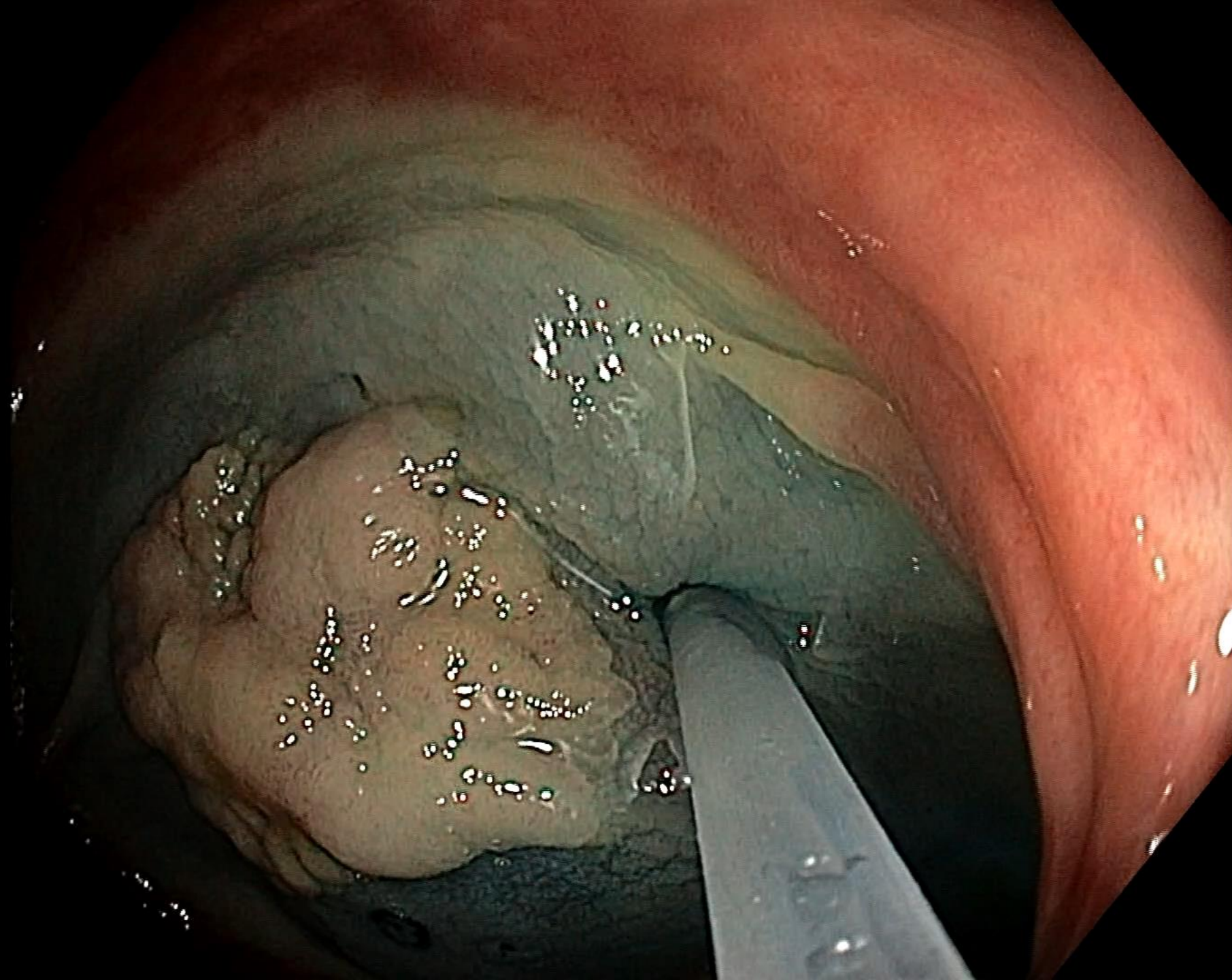
CF-HQ190L

SN 2978391

3.7

13.2/12.8

- ① Freeze
- ② NBI
- ③ Release 1
- ④ Release 1
- ⑤ Focus



📷 2
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📱 0
🕒 A7



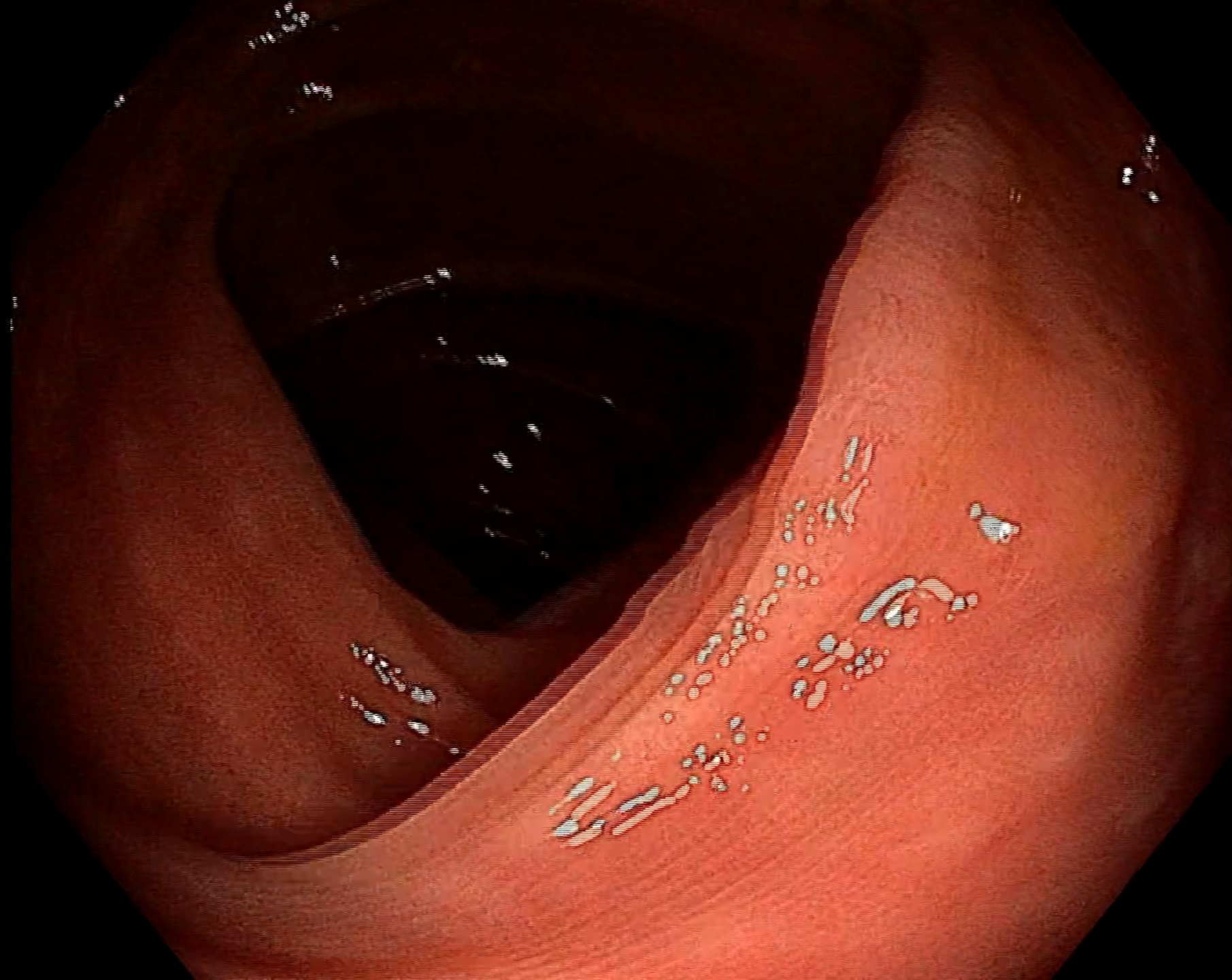
🔧 CF-HQ190L

📁 SN 2978351

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- ❶ Freeze
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- ❸ Release 1
- ❹ Release 1
- ❺ Focus

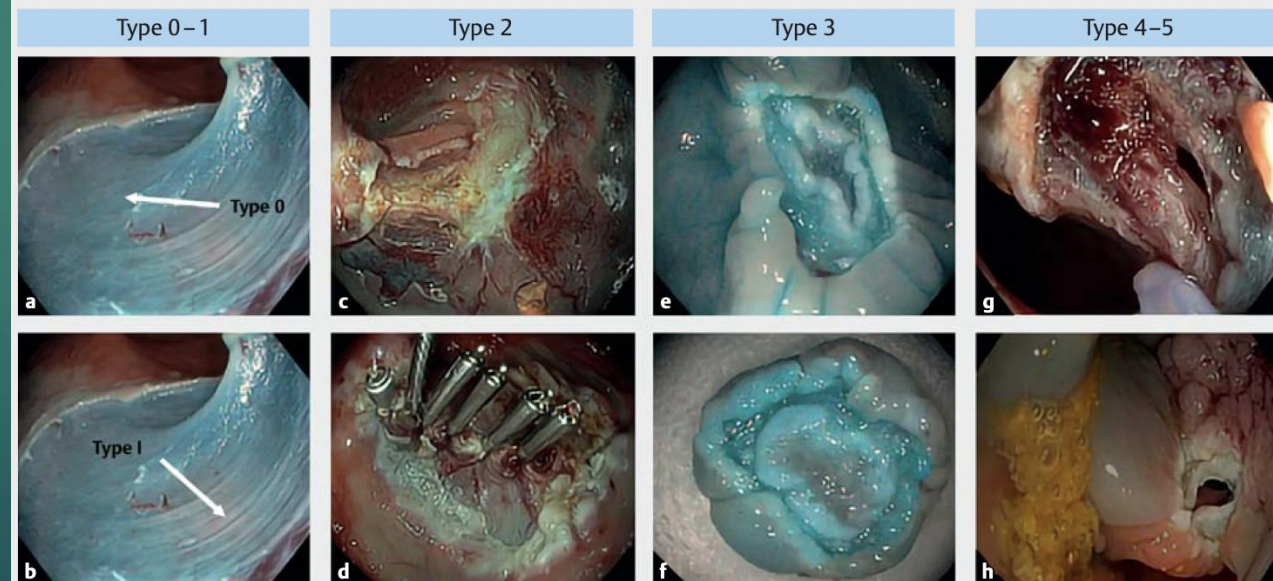


Conventional EMR



<https://www.rymed.com.au/pages/erbe-vio®-3-electrosurgical-system>

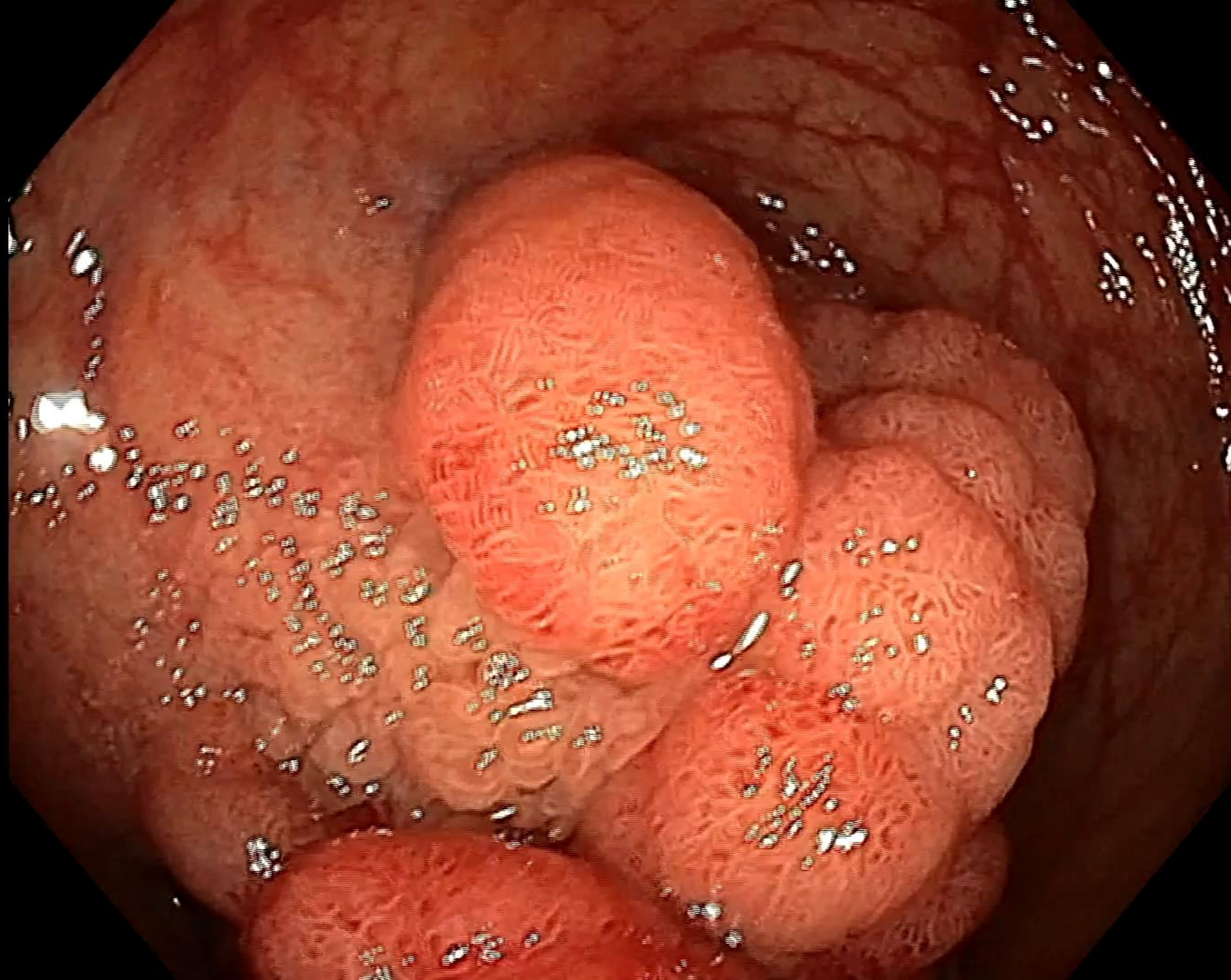
Sydney classification of deep mural injury (DMI)



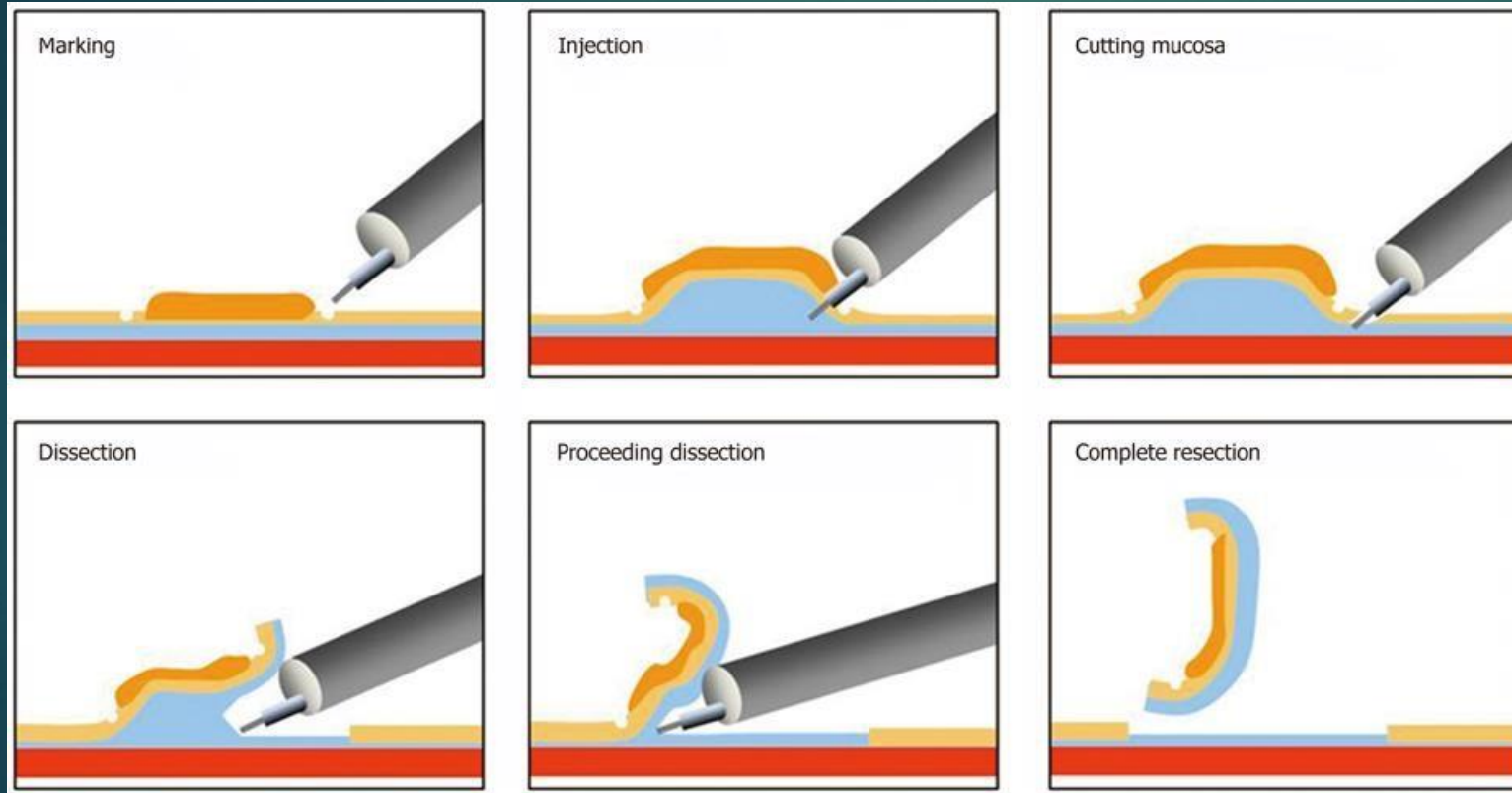
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① Freeze
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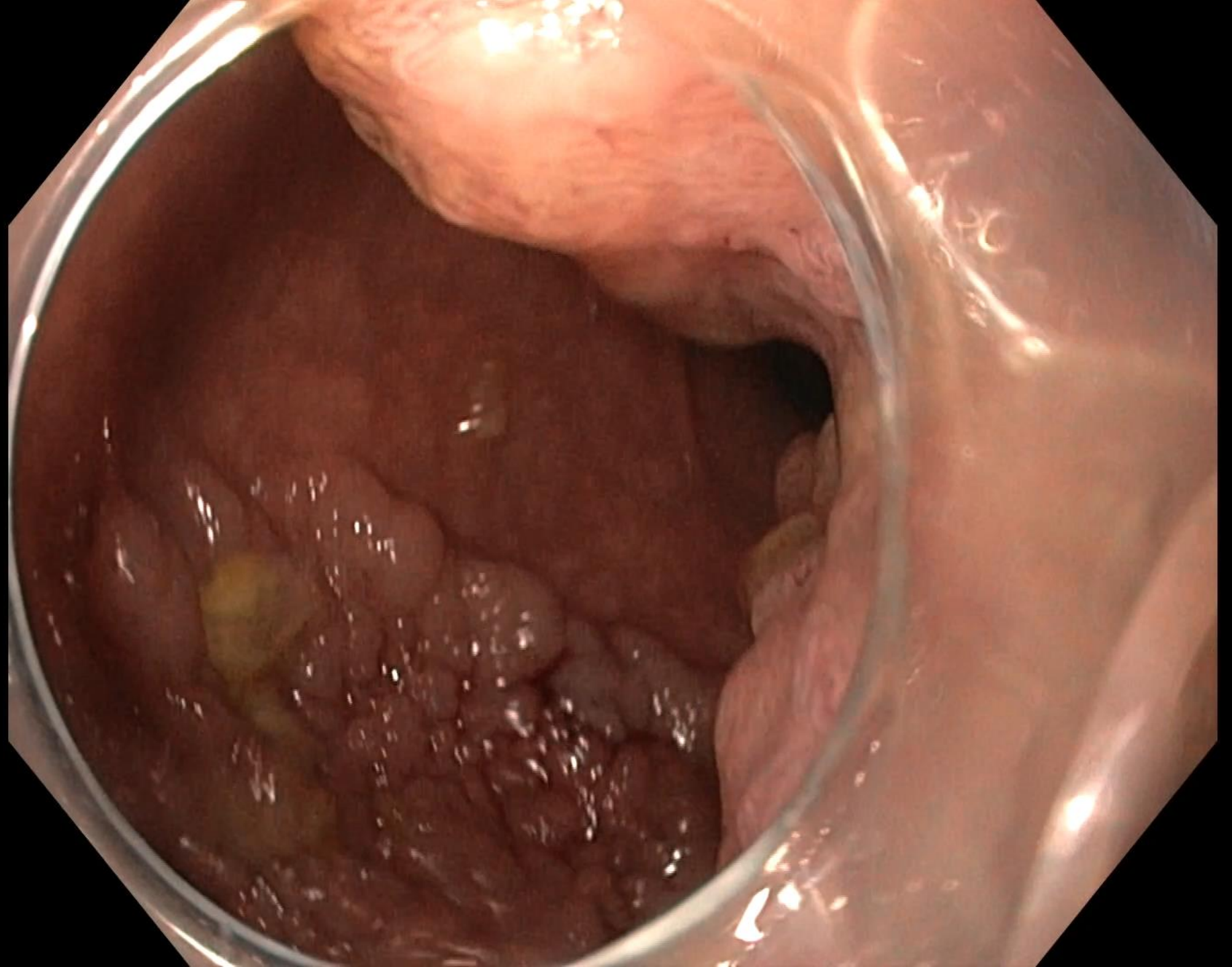
ESD



<https://www.nth.nhs.uk/resources/endoscopic-submucosal-dissection-esd-for-gastric-growths/>



<https://www.olympusprofed.com/gi/esd/903/>



Post colonoscopy colorectal cancer

- ▶ 7.4% detected colorectal cancers
- ▶ Pooled analysis 9167 participants
 - ▶ 52% probable missed lesions
 - ▶ 19% incomplete resection of earlier non-invasive lesion

Synchronous lesions

- ▶ 67.2% large polyps have concurrent disease
 - ▶ 18.1% ≥ 20 mm
- ▶ Cumulative development of advanced adenomas and cancer in polyps ≥ 20 mm significantly higher (22.9% vs 9.5%; $P < 0.001$) at 36 months after index colonoscopy



<https://brainwisemedia.com/the-science-behind-inattention-blindness/>

Incomplete resection

- ▶ CARE study

- ▶ 346 neoplastic polyps removed by 11 gastroenterologists

- ▶ 10.1% incompletely resected.

- ▶ Significantly higher for large (10-20 mm) than small (5-9 mm) neoplastic polyps (17.3% vs 6.8%; relative risk = 2.1)

Rationale for surveillance

- ▶ Detect metachronous lesions
- ▶ Ensure complete endoscopic resection

Rationale for surveillance

- ▶ Detect metachronous lesions
- ▶ Ensure complete endoscopic resection

Surveillance guidelines

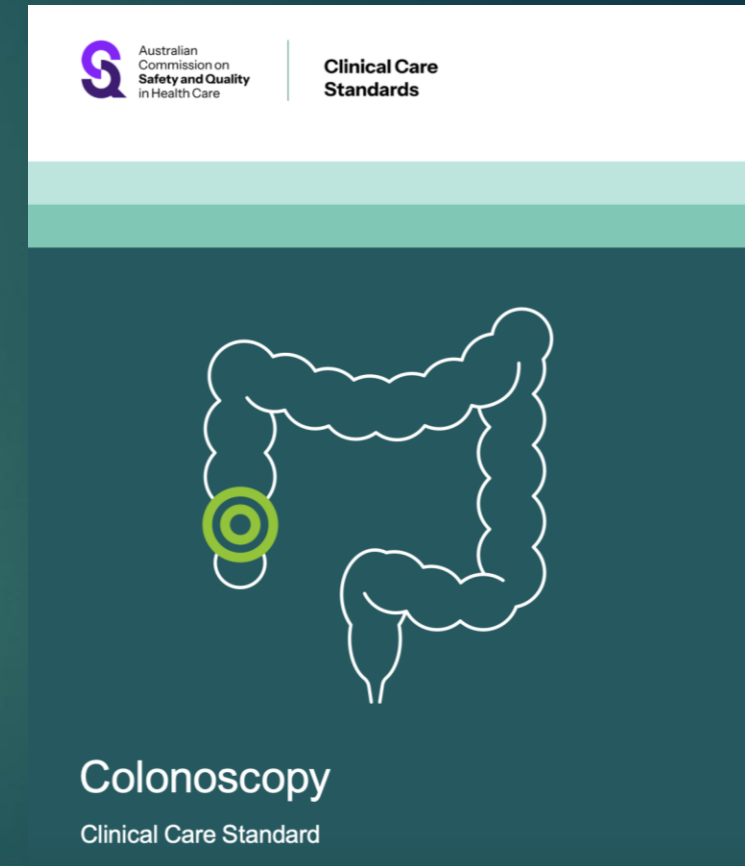
CLINICAL PRACTICE GUIDELINES **FOR SURVEILLANCE COLONOSCOPY**

SHORT FORM SUMMARY OF NHMRC APPROVED RECOMMENDATIONS

wiki.cancer.org.au/australia

Available evidence

- ▶ Methodological limitations
 - ▶ No contemporary high-quality studies comparing outcomes from different surveillance intervals
 - ▶ 1980s and 1990s
 - ▶ No RCT with a control arm of no colonoscopy or longer surveillance intervals
- ▶ Retrospective cohort studies
 - ▶ Selection bias
 - ▶ Variable intervals
 - ▶ Heterogenous populations
 - ▶ Symptoms /background risk factors/personal adenoma history/family history
- ▶ Variable outcomes
 - ▶ Metachronous neoplasia/adenoma/advanced adenoma/advanced neoplasia/CRC
- ▶ Difference in quality to contemporary colonoscopy
 - ▶ Technology and quality metrics



What we do know...

- ▶ Low risk = 1–2 small (<10mm) tubular adenomas without high-grade dysplasia (HGD).
 - ▶ Incidence of any adenoma
 - ▶ 27.48% to 53.48%
 - ▶ Incidence of metachronous advanced adenomas
 - ▶ 1.35% to 8.04%
 - ▶ Incidence of metachronous colorectal cancer
 - ▶ $\leq 1\%$

- 
- ▶ ≥ 5 conventional adenoma (tubular, tubulovillous or villous)
 - ▶ Metachronous neoplasia 80% at follow-up of 4.0 ± 1.5 years OR 100% at 6–7 years
 - ▶ Metachronous advanced adenoma 9.1% after a mean follow-up of 4 years.
 - ▶ Metachronous advanced neoplasia 16.3% after 3 years

Advanced adenoma

- ▶ Incidence of metachronous CRC of 0.00% to 1.52%
- ▶ Incidence of any adenoma 36.63% to 69.71%
- ▶ Incidence of metachronous advanced adenoma 2.40% to 24.24%

Sessile serrated lesions

- ▶ Incidence of SSL 42.67% after follow-up 4.0 ± 1.17 years.
 - ▶ 33.33% for SSL and low risk adenoma, at follow-up of 3.94 ± 1.39 years
 - ▶ 32.98% for SSL and high-risk adenomas, at follow-up of 3.54 ± 1.43 years.
- ▶ Incidence of conventional adenoma 34.67% after surveillance at 4.0 ± 1.17 years.
 - ▶ Increases if synchronous low-risk or high risk adenomas/SSL-D
- ▶ Cumulative incidence of advanced adenoma at 1–5 years
 - ▶ Increased at similar rate if index serrated adenoma only (0.0–10.0%) and serrated + non-advanced adenoma (0.0–7.0%).
 - ▶ Serrated adenoma with advanced adenoma - cumulative incidence increased 8.3–27.0% at 1–2 years

► Cumulative incidence of advanced SSL

- If index serrated adenoma -5.41% at mean follow-up time of 3.86 (± 1.39) years
- Increased at a similar rate if index serrated adenoma only (0.0–7.00%) vs serrated adenoma + non-advanced adenoma (0.0–11.00%).
- If serrated adenoma + advanced adenoma - cumulative incidence of advanced serrated polyps steady at 9.00% from 2–5 years.

Guidelines

Current colonoscopy findings		Conventional adenoma Size <10mm		Conventional adenoma Size ≥10mm ^{d,e}	
		HGD and/or villosity		HGD and/or villosity	
		No	Yes	No	Yes
Total number of conventional adenomas	1-2	10Y ^{a,b,c}	5Y	3Y	3Y
	3-4	5Y ^d	3Y	3Y	1Y
	5-9	3Y	1Y	1Y	1Y
	≥10	1Y	1Y	1Y	1Y

First surveillance - clinically significant serrated polyps only		
Current colonoscopy findings (no. clinically significant serrated polyps)	Advanced serrated polyps (≥10 mm, dysplasia or TSA)	
	No	Yes
1-2	5Y	3Y
3-4	3Y	1Y
≥5	1Y	

Colorectal polypectomy and endoscopic mucosal resection: European Society of Gastrointestinal Endoscopy (ESGE) Guideline – Update 2024



Gastroenterology 2020;158:1095–1129

CLINICAL PRACTICE GUIDELINES

Endoscopic Removal of Colorectal Lesions—Recommendations by the US Multi-Society Task Force on Colorectal Cancer



Tonya Kaltenbach,¹ Joseph C. Anderson,^{2,3,4} Carol A. Burke,⁵ Jason A. Dominitz,^{6,7}
Samir Gupta,^{8,9} David Lieberman,¹⁰ Douglas J. Robertson,^{2,3} Aasma Shaukat,^{11,12}
Sapna Syngal,¹³ and Douglas K. Rex¹⁴

EMR Surveillance

▶ SC1 (6 months)

▶ SC2 (18 months)

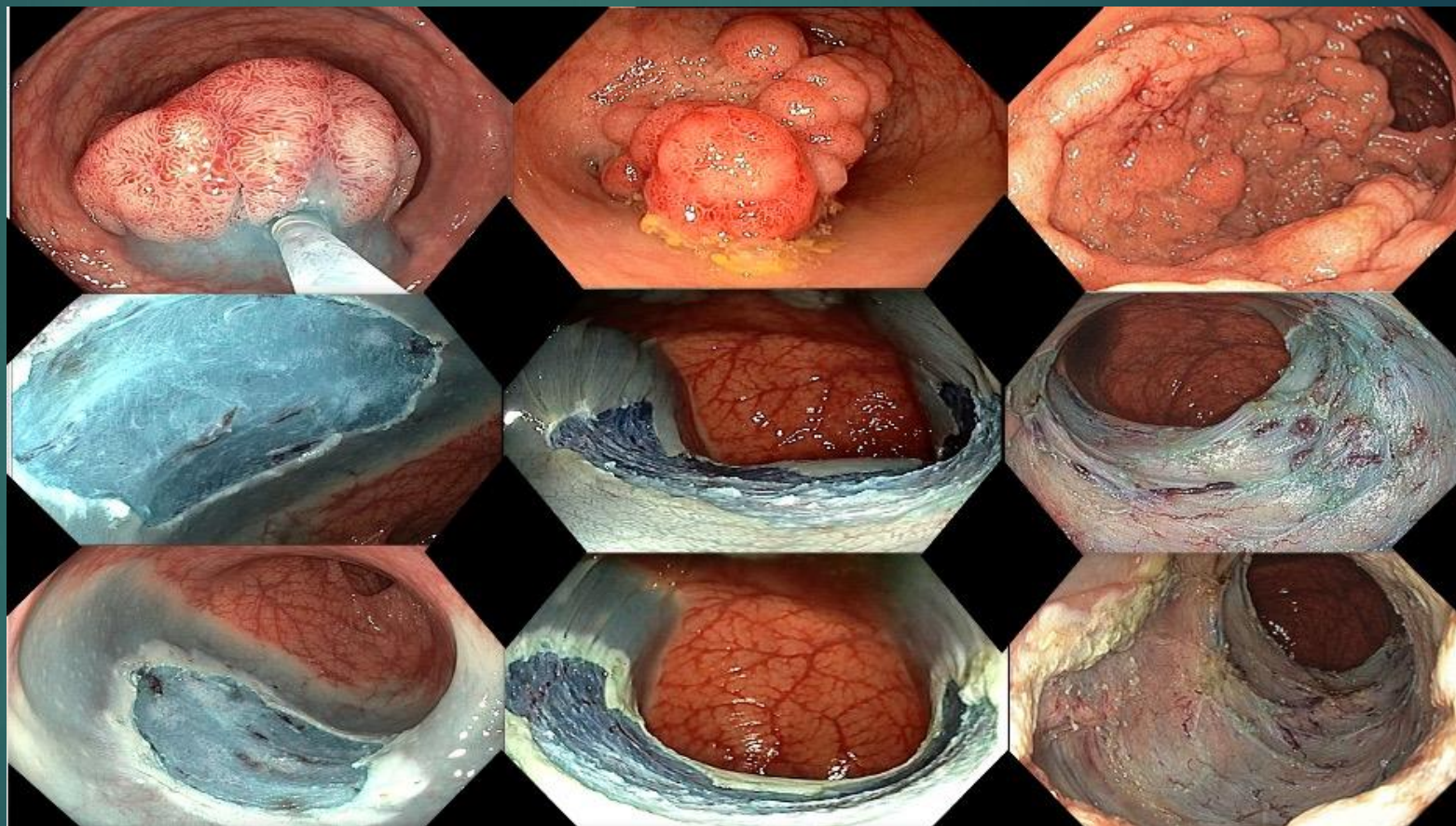


Changing EMR landscape

- ▶ Cold vs hot resection

- ▶ STSC

- ▶ Is SC2 needed?



What factors into surveillance decisions

- ▶ Polyps
 - ▶ Histology
 - ▶ Size
 - ▶ Number
- ▶ Resection modality
 - ▶ Piecemeal
 - ▶ EMR – hot vs cold
 - ▶ ESD
- ▶ Colonoscopy quality
 - ▶ Preparation
 - ▶ Extent of examination
 - ▶ Withdrawal time/tolerance

What about age?



Practice point

Careful assessment and shared decision-making should be utilised when considering surveillance colonoscopy in the elderly, most of whom will have no significant findings and will not benefit.

Practice point

Surveillance colonoscopy in those ≥75 years should be considered based on age, co-morbidity and the preferences of the patient. The reproducible and validated Charlson score is useful to assess life expectancy and could be implemented to assist decision-making (see Tables 17 and 18 below).

Practice point

In obtaining consent for colonoscopy for an elderly patient, complication rates should reflect the individual risk based on age and comorbidity rather than ‘standard’ figures.

Table 17. Surveillance recommendations for individuals age ≥75 years

Age (years)	Charlson score ^a	
	≤4	>4
75–80	Surveillance colonoscopy to be considered ^{b,c}	Surveillance colonoscopy not recommended
>80	Surveillance colonoscopy not recommended	

^aCharlson for colonoscopy benefit can be simplified as per Table 18; ^bcolonoscopy should be considered an option dependent on a clear conversation about the low risk of significant colorectal pathology, taking the patient’s wishes into consideration; ^cconsent for colonoscopy should include age appropriate statistics on risk.

Table 18 . Charlson score for colonoscopy benefit

Age	Medical conditions	
75–79 years (3 points)	May have <i>one</i> of these conditions only (1 point each): Mild liver disease Diabetes without end-organ damage Cerebrovascular disease Ulcer disease Connective tissue disease Chronic pulmonary disease Dementia Peripheral vascular disease Congestive heart failure Myocardial infarction	May not have <i>any</i> of these medical conditions (≥1 point each): Moderate/severe liver disease Diabetes with end-organ damage Hemiplegia Moderate or severe renal disease AIDS Metastatic or non-metastatic solid organ or haematopoietic malignancy
	80 years (4 points)	May not have any of the above medical conditions

Take home points for the patient in front of you

- ▶ Was examination adequate ?
- ▶ Should my patient continue surveillance?
- ▶ How was the polyp removed?
- ▶ Risk of metachronous neoplasia

Polyp.app

Developed by Adam Haig MD

Surveillance Family Syndromes Stopping About

Colonoscopy Surveillance Calculator

Fill in the findings of the two most recent colonoscopies to determine the appropriate surveillance interval. Please note if there are other indications for colonoscopy such as family history or a polyposis syndrome, recommended surveillance intervals may differ from those shown below (see tools for family risk calculation and syndromes).

Index Colonoscopy	
Conventional adenomas	- 0 +
Clinically significant serrated lesions	- 0 +

Surveillance interval

Guideline

Second Colonoscopy	
Conventional adenomas	- 0 +
Clinically significant sessile serrated lesions	- 0 +

We are here to help



References

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15. Kaltenbach T, Anderson JC, Burke CA, Dominitz JA, Gupta S, Lieberman D, Robertson DJ, Shaukat A, Syngal S, Rex DK. Endoscopic Removal of Colorectal Lesions-Recommendations by the US Multi-Society Task Force on Colorectal Cancer. *Gastroenterology*. 2020 Mar;158(4):1095-1129.



⚠ Page not yet adapted for Brisbane North

Home / Medical / Gastroenterology / Bowel Polyp Surveillance

Bowel Polyp Surveillance

This page is about polyp removal follow-up for patients who are not regarded as high risk for colorectal cancer due to personal or family history or long-term inflammatory bowel disease.

Background

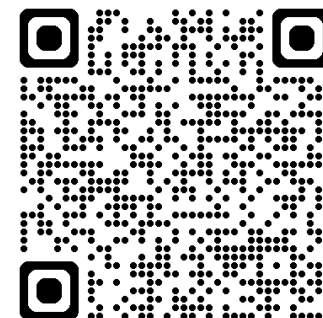
[About bowel polyp surveillance](#)

Management

1. If the patient is aged > 75 years or has significant co-morbidities, decide whether the potential risks of continuing surveillance outweigh the perceived benefits. Local specialists advise that patients aged > 75 years will in general not be offered surveillance colonoscopy.
2. If [category 2 or 3 family history of bowel cancer](#), ensure surveillance interval $\leq$ 5 years even if the procedure was normal or associated with low-risk polyps.
3. Determine [surveillance interval](#) based on histology from [high quality colonoscopy](#).
Adjust surveillance intervals if colonoscopy was suboptimal.
4. Request [non-acute genetic health assessment](#) from the Familial Gastrointestinal Cancer Service if the patient has:
 - 10 or more adenomas at one time (including at least 1 [advanced adenoma](#) if aged > 70 years).
 - 5 or more [advanced adenomas](#) at one time.
 - 20 cumulative adenomas.
 - 10 cumulative adenomas if aged $\leq$ 30 years.
 - [serrated polyposis syndrome](#).
5. If the patient is not under a local service for follow-up colonoscopy or unknown histology, request [non-acute gastroenterology assessment](#).

Request

- Request [non-acute genetic health assessment](#) from the Familial Gastrointestinal Cancer Service if patient has:
 - 10 or more adenomas at one time (including at least 1 [advanced adenoma](#) if aged > 70 years).
 - 5 or more [advanced adenomas](#) at one time.
 - 20 cumulative adenomas.
 - 10 cumulative adenomas if aged $\leq$ 30 years.
 - [serrated polyposis syndrome](#).
- If patient not under local service for follow-up colonoscopy or unknown histology, request [non-acute gastroenterology assessment](#).



Polyp surveillance

Emergency department referrals

All urgent cases must be discussed with the on call Gastroenterology Registrar to obtain appropriate prioritisation and treatment. Contact through

- Royal Brisbane and Women's Hospital (07) 3646 8111
- The Prince Charles Hospital (07) 3139 4000
- Redcliffe Hospital (07) 3883 7777
- Caboolture Hospital (07) 5433 8888

Urgent cases accepted via phone must be accompanied with a written referral and a copy faxed immediately to the Central Patient Intake Unit: 1300 364 952.

If any of the following are present or suspected, refer the patient to the emergency department (via ambulance if necessary) or seek emergent medical advice if in a remote region.

- Potentially life-threatening symptoms suggestive of:
 - acute upper GI tract bleeding
 - acute severe lower GI tract bleeding
 - oesophageal foreign bodies/food bolus
 - acute Severe Colitis*
 - bowel obstruction
 - abdominal sepsis
- Severe vomiting and/or diarrhoea with dehydration

*Acute severe colitis as defined by the Truelove and Witts criteria - all patients with ≥ 6 bloody bowel motions per 24 hours plus at least one of the following:

- temperature at presentation of $> 37.8^{\circ}\text{C}$,
- pulse rate at presentation of > 90 bpm,
- haemoglobin at presentation of < 105 gm/l, CRP $> 30\text{mg/dl}$ at presentation (or ESR > 30 mm/hr)

Does your patient wish to be referred? ?

Minimum referral criteria

Does your patient meet the minimum referral criteria?

Category 1

Appointment within 30 days is desirable

- See other important information for referring practitioners

Category 2

Appointment within 90 days is desirable

- See other useful information for referring practitioners
- Polyp surveillance in special circumstances (see other useful information etc)

[+ Other Gastroenterology conditions](#)

Send referral

Hotline: 1300 364 938

Electronic:

[GP Smart Referrals \(preferred\)](#)

[eReferral system templates](#)

Medical Objects ID: MQ40290004P

HealthLink EDI: qldmnhhs

Mail:

Metro North Central Patient Intake
Aspley Community Centre
776 Zillmere Road
ASPLEY QLD 4034

Health pathways ?

Access to Health Pathways is free for clinicians in Metro North Brisbane.

For login details email:

healthpathways@brisbanenorthphn.org.au

Login to Brisbane North Health

Pathways:

brisbanenorth.healthpathwayscommunity.org

Locations

[Caboolture Hospital](#)

[Redcliffe Hospital](#)

[Royal Brisbane and Women's Hospital](#)

[The Prince Charles Hospital](#)

Resources

[NHMRC Clinical Practice Guidelines \(2019\)](#)

[Cancer Council Australia \(2018\)](#)

[General referral criteria](#)



Queensland Government



Smart Referrals



Dr Fred Findacure

Patient name: Nicole METRONORTH DoB: 29 Sep 1977

Request information

Request date 21 Oct 2025

Request type **New referral** Update Continuation Request for advice

Reason for referral ☒ New condition requiring specialist consultation
☐ Deterioration in condition, recently discharged from outpatients < 12 months
☐ Other

Priority Urgent **Routine**

Provider **QHSR** Private

Consents

Date patient consented to request 21 Oct 2025

Patient is willing to have surgery if required? Yes No Not applicable

Condition and Specialty Gastroenterology - Polyp surveillance (Gastroenterology) (Adult) [HealthPathways](#)

Suitable for Telehealth? Yes No

Are you the patient's usual GP? Yes No

Request recipient

Service/Location	Please select			
Specialist name				
Organisation details	Gastroenterology	ROYAL BRISBANE & WOMEN'S HOSPITAL	6.4 km	
	Gastroenterology	THE PRINCE CHARLES HOSPITAL	12.2 km	+
	Gastroenterology	REDCLIFFE HOSPITAL	31.5 km	+
	Gastroenterology	CABOOLTURE HOSPITAL	47.4 km	+
	Gastroenterology	PRINCESS	1.8 km	Out of catchment +