Colonoscopic Polypectomy - Full Clinical Guideline

Ref No: CG/2023/037

Introduction

Aim

The adenoma detection rate is inversely associated with the risks of interval colorectal cancer, advanced-stage interval cancer, and fatal interval cancer. This guideline has been developed to ensure high quality and appropriate colonoscopic polypectomy standards.

The guideline excludes patients with a high-risk family history of polyps and cancers (2 first degree relatives or 1 first degree relative of less than 40 years with colorectal cancer) and patients with IBD and polyps both of which are special high-risk groups. It does not cover the management of large and complex polyps, which is published separately.

Adenomatous polyps are pre malignant

Colonic adenomatous polyps greater than 1 cm diameter have a 5% chance of invasive carcinoma and 5% chance of high-grade dysplasia. Polyps less than 1 cm has a less than 1% risk of malignancy.

Abbreviations

IBD	Inflammatory bowel disease
ERBE	ERBE (manufacturer of diathermy unit)
EMR	Endoscopic Mucosal Resection
APC	Argon Plasma Coagulation
DOACs	Direct Acting Oral Anticoagulants
PPB	Post Polypectomy Bleeding
SMSA	Site, Size, Morphology, Access

1. Guideline

Polypectomy Risks

The literature cites perforation rates for polypectomy of between 1 in 200 and 1 in 500. Post polypectomy perforation has a surgical operative mortality of approximately 10%. Advice to patients should be individualised taking into account operative risk should a perforation occur. This is particularly important for patients with significant cardiovascular, respiratory or other co- morbidity.

Polypectomy Techniques

A range of techniques is available and it is recommend tailoring the choice of technique to the size, site and morphology of the polyp. It is important to assess the polypectomy site after resection to ensure completeness of resection.

Cold Biopsy forceps

The cold biopsy technique is useful for removing polyps ≤2mm irrespective of site & morphology. The open jaws should be targeted carefully to efficiently remove all abnormal tissue.

Cold Snare

The cold snare technique is ideal for removing polyps ≤6mm in size with the Exacto® cold snare designed specifically for this purpose. The aim should be to remove 1-3mm rim of normal tissue around the polyp to reduce the risk of recurrence.

Hot Biopsy forceps

This technique is NO longer recommended due to the risk of delayed bleeding, perforation and recurrence and is no longer stocked.

Polypectomy – Polypoid Adenomas (Stalked)

Pedunculated lesions should be removed by hot snare techniques. Large/thick stalks may be pre-injected with 1:10,000 Adrenaline in normal saline to reduce the risk of immediate post polypectomy bleeding. Consider applying a clip to the stalk after resection to reduce the risk of delayed bleeding.

Mucosal Elevation and Snare Polypectomy.

EMR should be considered for any sessile/semi-pedunculated polyp larger than 7mm in size anywhere in the colon. True “depressed” (IIc) lesions are rare in the colon, but should always be removed by EMR (if possible) regardless of size as these lesions may contain high grade dysplasia and are difficult to ensnare without submucosal lifting. Larger polyps >2cm may need to be removed piecemeal.

Submucosal saline or injectable colloid is injected using a disposable injection needle. The saline is injected to visibly elevate the sessile adenoma. If there is a non-lifting sign the lesion should NOT be resected by EMR. Colloid has the advantage of less rapid dispersal.

Suggested composition of EMR mix:

- Polyps <15mm: 10ml Saline +/- Indigocarmine 0.8%
- Standard Mixture: 5ml Indigocarmine 0.8% + 10ml Adrenaline 1:10,000 in 500ml Gelofusin®
- Small volume required (20ml syringes): 1ml Indigocarmine 0.8% + 1ml Adrenaline 1:10,000 + 18ml Gelofusin® (or saline)

APC

Precise Argon may be used to tidy up residual polyp tissue after piecemeal EMR. Suggest 15-20 Watts in the right colon and 20-30 Watts in the left colon (Effect 2).

Anticoagulation and Antiplatelet Agents

Polypectomy is a high-risk endoscopic procedure and Warfarin, DOACs and Clopidogrel should be discontinued according to Trust Anticoagulation Guidelines for Endoscopy.

Scoring system to assess polyp difficulty

The SMSA scoring system helps to stratify difficulty levels of polypectomy. The majority of colonoscopists should be able to manage level I and II polyps. Level III and IV polyps should be referred to another operator if not competent to remove them. One tattoo should be placed on the anal side of the lesion to mark the site for subsequent EMR, unless it is very easy and obvious to find. Specify polyp difficulty level on the request form. (See appendix)

2. References

1. Corley DA, Levin TR, Doubeni CA. Adenoma detection rate and risk of colorectal cancer and death. N Engl J Med. 2014;370(26):2541.
2. Bond, J.H. Polyp Guideline: Diagnosis, treatment and surveillance for patients with colorectal polyps American Journal of Gastroenterology, 2000, 95(11), 3053-61
3. Atkin WS, Saunders BP. Surveillance guidelines after removal of colorectal adenomatous polyps. Gut. 2002;51 Suppl 5:V6-9.
4. Gupta S, Miskovic D, Rembacken B, et al. A novel method for determining the difficulty of colonoscopic polypectomy. Frontline Gastroenterol 2013;4: 244–8.
5. Hewett DG. Colonoscopic Polypectomy Current Techniques and Controversies. Gastroenterol Clini North Am. 2013;42(3):443-58
6. Ellis K, Schiele M, Marquis S, Katon R. Efficacy of hot biopsy forceps, cold micro-snare and micro-snare with cautery techniques in the removal of diminutive colonic polyps. Gastrointestinal Endoscopy. 1997;45(4).
7. Din S, Ball AJ, Riley SA, Kitsanta P, Johal S. Cold snare polypectomy: Does snare type influence outcomes? Dig Endosc. 2015 Jul; 27(5):603-608.

3. Documentation Controls

Development of Guideline	Dr Said Din
Consultation with:	Andrew Goddard, Stephen Hearing, Andrew Cole
Approved By:	01/10/2019 Endoscopy 07/10/2019 Division of Medicine Reviewed no changed – Gastro-Dec 2023 Medicine Division -
Review Date:	December 2026
Key Contact:	Dr Said Din
Date of Upload:	08/12/2023

Appendices

Polypectomy Summary Guide

The ERBE unit is configured with 3 polypectomy settings as defined below. Switch on the machine and choose the polypectomy program required.

Program 1 Blue Pedal, Forced Coag 20W, Effect 2

Program 2 **Yellow Pedal** Endo Q Effect 1, Forced Coag 15W

Program 3 **Yellow Pedal** Endo Q Effect 2, 20W

Size	Morphology	Technique	ERBE setting
≤2mm	Any	Cold Biopsy Forceps	-
≤6mm	Any	Cold snare	-
Any size >6mm	Pedunculated (not semi-pedunculated)	Hot snare	**Program 1** **POLYPECTOMY** Blue Pedal Forced Coag 20W, Effect 2
7-15mm	Sessile or semi-pedunculated	Saline EMR +/_ methylene blue	**Program 3 - EMR** Yellow pedal (keep pressed) Endo Q Eff 2, 20W
≥15mm	Sessile or semi-pedunculated	EMR using methylene blue/Indigocarmine	**Program 3 - EMR** Yellow pedal (keep pressed) Endo Q Eff 2, 20W

Right colon polyps - Program 2 - Endo Q Effect 1, Forced Coag 15W, (or Program 3)

Scoring system to assess polyp difficulty

Parameter	Range	Score
Size	<1 cm 1-1.9 cm 2-2.9 cm 3-3.9 cm >4 cm	1 3 5 7 9
Morphology	Pedunculated Sessile Flat	1 2 3
Site	Left Right	1 2
Access	Easy Difficult	1 3

SMSA scores with corresponding difficulty levels

Polyp level	Range of scores
I	4-5
II	6-8
III	9-12
IV	>12

SMSA, Site, Morphology, Size, Access

Surveillance following adenoma removal

Follow the British Society of Gastroenterology surveillance guidelines after removal of colorectal adenomatous polyps.