Lower GI investigation/Colonoscopy in older patients and those with comorbidity - Full Clinical Guideline

Reference no.: CG-ENDO/2023/009

1. Aim and Purpose

This document guides decision making in planning lower GI investigations including colonoscopy in patients aged >80yrs and >70yrs with significant comorbidities. Age is used as guideline to highlight frail patients, however some patients >80yrs will be appropriate for the patient to undergo colonoscopy and an individual patient assessment is helpful.

2. Keywords; Colonoscopy, Polypectomy, Older

3. Guideline

All patients in this age group and who are frail should be fully counselled regarding investigation and how it will influence their management. They should not be directed straight to test and the option of no test maybe a sensible option. If a patient is not fit for a subsequent intervention and wishes further investigation then the test should not put the patient at undue risk. In such a situation, however, the result may suggest the need for palliative care or other support.

COLONOSCOPY

Colonoscopy with or without polypectomy is of increased risk in the >80 age group. NCEPOD data would suggest that the mortality at 30 days following a colonoscopy in an ASA Class 1 patient with no comorbidities is of the order of 0.3%, or 1 in 300. Also there is very debatable value in removing small polyps in this age group. Colonoscopy requires bowel preparation with 2 litres of Moviprep. Some of the adverse events related to colonoscopy are due to the bowel preparation (e.g. dehydration, hypotension, renal impairment) rather than the actual procedure.

CT PNEUMOCOLON

CT Pneumocolon is a radiological alternative to colonoscopy. This does not require bowel preparation with Moviprep. However patients must have 2 day's low residue diet and take bowel preparation of 100ml gastrografin the day before in divided dosages. Whilst this is not as powerful as Moviprep, it can cause severe diarrhoea in many patients, and they must remain in close proximity to a toilet and be mobile enough to be able to reach the toilet urgently. It will demonstrate structural colonic lesions and visualise colonic polyps >10mm. It does not visualise the lower rectum and so a PR examination MUST be performed first for all patients referred for a CT Pneumocolon. Please ensure that information on why the patient is not suitable for colonoscopy is included in the radiology request as this will help the radiology department triage the request to either CT Pneumocolon or plain CT

CT ABDOMEN AND PELVIS

Some patients will be unsuitable for a CT Pneumocolon, due to either age, comorbidity or performance status. These patients should be assessed in clinic prior to organising ANY investigation. If they require investigation, then they should have a plain CT abdomen and pelvis with contrast to look for large primaries

FLEXIBLE SIGMOIDOSCOPY

This is a less invasive procedure than colonoscopy. As an initial diagnostic procedure, it does not require full bowel preparation with Moviprep, but does require a phosphate enema, either administered at home prior to the procedure, or in the department. It is a useful initial

investigation for PR bleeding and for unexplained persistent diarrhoea and will allow biopsies to be taken.

POLYPECTOMY

Most bowel cancers evolve along the polyp to cancer pathway. Polypectomy protects against the development of cancer and patients who have had polypectomy have a lower incidence of cancer than the background population. BSG guidelines state that patients can be offered surveillance until age 75 years. Colonoscopy is likely to be less successful and more risky at older ages. Further, the average lead time for progression of an adenoma to cancer is 10 years which is of the same order as the average life expectancy of an individual aged 75 years or older, suggesting that most will not benefit from surveillance (1). Data from the USA on life expectancy and comorbidity is shown in the table below and suggests that there is little benefit to health from polypectomy in patients over the age of 80 (2) unless well with no comorbidities.

Impact of Health and Functional Status

Age	Life expectancy (years)		
Years	Lower 25%	Middle 50%	Upper 25%
70	9.5	15.7	21.3
75	6.9	11.9	17.0
80	4.6	8.6	13.0
85	2.9	5.9	9.6
90	1.8	3.9	6.8

The ability to withstand complications in older patients is much reduced too, so perforation or bleeding post polypectomy is more likely to have a poor outcome(3).Decisions about polypectomy also need to take into account the risk that the polyp may be malignant or may develop into cancer in the near future. Studies have shown that the risk of high grade dysplasia or polyp cancer increases with polyp size and the risk is extremely low in polyps less than 10mm in size with risk becoming more significant in polyps over 25mm in size. The table below is data taken from over 65 000 polyps removed as part of the Bowel Cancer Screening Programme(4).

Size	**Polyp Cancer (%)**	**HGD (%)**
5 – 9mm	0.5	3.1
10 – 14mm	3.7	11.8
15 – 19mm	5.9	18.5
20 – 24mm	6.6	26.4
25 – 29mm	10.2	30.9
30 – 34mm	11.9	34.6
35 – 39mm	20.0	36.5

Recommendations for all patients >80 years and all patients >70 years with significant comorbidities

Recommendation for all patients >80 years (or >70 years with significant comorbidities)
Age is used as guideline to highlight frail patients, however some patients >80yrs will be appropriate for the patient to undergo colonoscopy and individual patient assessment is helpful
All patients in this age group and who are frail should be fully counselled regarding investigation and how it will influence their management. They should not be directed straight to test and the option of no test maybe a sensible option. If a patient is not fit for a subsequent intervention and wishes further investigation then the test should not put the patient at undue risk. In such a situation, however, the result may suggest the need for palliative care or other support

Rectal Bleeding
Differential diagnosis is colitis, polyps, cancer, haemorrhoids and angiectasia. The recommended initial investigation is flexible sigmoidoscopy .

Chronic Diarrhoea
The correct initial investigation is flexible sigmoidoscopy with rectal biopsy (only if the diarrhoea is chronic and unexplained). Patients should have also had coeliac serology and drugs reviewed as these are often the cause of diarrhoea. If sigmoidoscopy does not reveal a cause then consider proceeding to CT Pneumocolon if further investigations required

Abdominal Pain with altered bowel habit
The whole colon needs imaging in these circumstances. The patient needs a CT Pneumocolon (and PR examination).

Iron Deficiency
The whole colon needs imaging in these circumstances. The patient needs a CT Pneumocolon (and PR examination). In addition, for iron deficient patients the upper GI tract needs to be imaged; consider gastroscopy or Barium meal with coeliac serology.

Age >90
Investigate as above but substitute CT abdomen/pelvis for CT Pneumocolon but only after counselling the patient about the pros/cons of investigation and this must include the option of no investigation as this is very unlikely to alter surgical or endoscopic management. It may however allow a patient/family to be fully aware of their current situation and enable involvement of e.g. palliative care and support.

Polypectomy
1. Polyps less than 10mm in size should be regarded as low risk polyps.
2. Polypectomy of high risk polyps in patients over 80 (or over 70 with significant comorbidities) should only be undertaken after appropriate discussion with the patient prior to the procedure.
3. Polypectomy in this group should only be undertaken by experienced endoscopists

Polyp follow up
BSG guidelines state that patients can be offered surveillance until age 75 years. For patients over 70 with significant comorbidities any procedures should be carefully considered and only requested after an up to date review of the patient by the requesting team and considered whether colonoscopic surveillance is still required.

4. References (including any links to NICE Guidance etc.)

(1) Cairns SR, Scholefield JH, Steele RJ *et al*. Guidelines for colorectal cancer screening and surveillance in moderate and high risk groups (update from 2002). *Gut* 2010;**59**(5):666-89.
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(4) Majumdar, D, Patnick, J, Nickerson, C, and Rutter, M. D. Analysis of colorectal polyps detected in the English NHS Bowel Cancer Screening Programme with emphasis on advanced adenoma and polyp cancer detected. Gut 61[A67]. 2012.
Ref Type: Generic

Documentation Controls

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Consultation with:	Consultant Gastroenterologist Consultant Coloproctologists Dr Singh (Radiology) 24/11/20
Approved By:	UHDB CRC MDT 27/11/20 Gastro Subdirectorate 25/11/20 UHDB Endoscopy Users Group 8/12/20 Medical Division 15/12/20 Reviewed no change -Gastro – Dec 2023 Medicine Division -
Review Date:	December 2026
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