NICE National Institute for Health and Care Excellence

NICE guideline

Colorectal cancer prevention: colonoscopic surveillance in adults with ulcerative colitis, Crohn's disease or adenomas

Clinical guideline
Published: 23 March 2011
Last updated: 20 September 2022

www.nice.org.uk/guidance/cg118

Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

Overview

This guideline covers using colonoscopy to check for signs of bowel cancer in people aged 18 and over with ulcerative colitis or Crohn's disease (types of inflammatory bowel disease) or adenomas (also known as polyps). It aims to prevent cancer and prolong life by offering advice on identifying early bowel cancer in adults most at risk.

Who is it for?

- Healthcare professionals
- Adults with ulcerative colitis, Crohn's disease or adenoma, and their families and carers

Introduction

This guideline incorporates NICE'S interventional procedures guidance on computed tomographic colonography (virtual colonoscopy).

Adults with inflammatory bowel disease (IBD, which covers ulcerative colitis and Crohn's disease) or with adenomas have a higher risk of developing colorectal cancer than the general population. Colorectal cancer is the third most common cancer in the UK, with approximately 32,300 new cases diagnosed and 14,000 deaths in England and Wales each year. Around half of the people diagnosed with colorectal cancer survive for at least 5 years after diagnosis.

The prevalence of ulcerative colitis is approximately 100 to 200 per 100,000 and the annual incidence is 10 to 20 per 100,000. The risk of developing colorectal cancer for people with ulcerative colitis is estimated as 2% after 10 years, 8% after 20 years and 18% after 30 years of disease.

The prevalence of Crohn's disease is approximately 50 to 100 per 100,000 and the annual incidence is 5 to 10 per 100,000. The risk of developing colorectal cancer for people with Crohn's disease is considered to be similar to that for people with ulcerative colitis with the same extent of colonic involvement.

Colonoscopic surveillance in people with IBD or adenomas can detect any problems early and potentially prevent progression to colorectal cancer. For people who are not in these high-risk groups, the NHS Bowel Cancer Screening Programme offers screening using faecal occult blood testing every 2 years to all men and women aged 60 to 74 years. People undergoing colonoscopic surveillance are not generally offered screening as part of the Bowel Cancer Screening programme.

The British Society of Gastroenterology (BSG) issued guidelines for colonoscopic surveillance for people who have had adenomas removed and for people with IBD (Atkin and Saunders 2002; Eaden and Mayberry 2002; updated by Cairns et al. 2010). NICE has developed this short clinical guideline on the use of colonoscopic surveillance because of variations in clinical practice. Some members of the NICE Guideline Development Group (GDG) were also members of the group that developed the BSG guidelines. The evidence-

based recommendations and algorithms developed in the NICE guideline are broadly consistent with those in the 2010 BSG guidelines. Both guidelines used a similar evidence base, with the exception of health economics evidence, which was not considered for the BSG guidelines. However, there are some differences between the two guidelines because the processes and methods used to develop each guideline were different.

Throughout this guideline, the term 'adenomas' is used. However, other terms have been used in the clinical studies included in the evidence review, for example 'polyps' or 'adenomatous polyps'.

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

The following guidance is based on the best available evidence. The full guideline gives details of the methods and the evidence used to develop the guidance.

People with inflammatory bowel disease

1.1.1 Offer colonoscopic surveillance to people with inflammatory bowel disease (IBD) whose symptoms started 10 years ago and who have:

- ulcerative colitis (but not proctitis alone) **or**
- Crohn's colitis involving more than one segment of colon.

1.1.2 Offer a baseline colonoscopy with chromoscopy and targeted biopsy of any abnormal areas to people with IBD who are being considered for colonoscopic surveillance to determine their risk of developing colorectal cancer (see box 1).

Box 1 Risk of developing colorectal cancer in people with IBD

Low risk:

- extensive but quiescent ulcerative colitis **or**
- extensive but quiescent Crohn's colitis **or**
- left-sided ulcerative colitis (but not proctitis alone) or Crohn's colitis of a similar extent.

Intermediate risk:

- extensive ulcerative or Crohn's colitis with mild active inflammation that has been confirmed endoscopically or histologically **or**
- post-inflammatory polyps **or**
- family history of colorectal cancer in a first-degree relative aged 50 years or over.

High risk:

- extensive ulcerative or Crohn's colitis with moderate or severe active inflammation that has been confirmed endoscopically or histologically **or**
- primary sclerosing cholangitis (including after liver transplant) **or**
- colonic stricture in the past 5 years **or**
- any grade of dysplasia in the past 5 years **or**
- family history of colorectal cancer in a first-degree relative aged under 50 years.

1.1.3 Offer colonoscopic surveillance to people with IBD as defined in recommendation 1.1.1 based on their risk of developing colorectal cancer (see box 1), determined at the last complete colonoscopy:

- Low risk: offer colonoscopy at 5 years.
- Intermediate risk: offer colonoscopy at 3 years.
- High risk: offer colonoscopy at 1 year.

1.1.4 For people with IBD who have been offered colonoscopic surveillance, continue to use colonoscopy with chromoscopy as the method of surveillance.

1.1.5 Offer a repeat colonoscopy with chromoscopy if any colonoscopy is incomplete. Consider whether a more experienced colonoscopist is needed.

People with adenomas

1.1.6 Recommendation deleted. See the British Society of Gastroenterology's guidelines on post-polypectomy and post-colorectal cancer resection surveillance.

1.1.7 Recommendation deleted.

1.1.8 Recommendation deleted.

1.1.9 Recommendation deleted.

1.1.10 Recommendation deleted.

1.1.11 Recommendation deleted.

1.1.12 Recommendation deleted.

1.1.13 Recommendation deleted.

Providing information and support

1.1.14 Discuss the potential benefits, limitations and risks with people who are considering colonoscopic surveillance including:

- early detection and prevention of colorectal cancer **and**
- quality of life and psychological outcomes.

1.1.15 Inform people who have been offered colonoscopy, CTC, or barium enema about the procedure, including:

- bowel preparation
- impact on everyday activities
- sedation
- potential discomfort
- risk of perforation and bleeding.

1.1.16 After receiving the results of each surveillance test, discuss the potential benefits, limitations and risks of ongoing surveillance. Base a decision to stop surveillance on potential benefits for the person, their preferences and any comorbidities. Make the decision jointly with the person, and if appropriate, their family or carers.

1.1.17 If there are any findings at surveillance that need treatment or referral, discuss the options with the person, and if appropriate, their family or carers.

1.1.18 Throughout the surveillance programme, give the person and their family or carers the opportunity to discuss any issues with a healthcare professional. Information should be provided in a variety of formats tailored to the person's needs and should include illustrations.

Recommendations for research

We have made the following recommendations for research, based on our review of the evidence, to improve NICE guidance and patient care in the future.

1 Surveillance programmes for people at increased risk of colorectal cancer

How effective are colonoscopic surveillance programmes in improving overall survival and cancer-related survival in people at increased risk of colorectal cancer?

Why this is important

There is no evidence from RCTs on the effectiveness of colonoscopic surveillance programmes in improving survival in people at increased risk of colorectal cancer. Although there is some observational evidence in people with IBD, there is no evidence in people after adenoma removal. RCTs should be undertaken to determine the comparative effect of different surveillance programmes on survival (preferably with a follow-up of 5 years and longer) and quality of life in people at increased risk of colorectal cancer because of IBD or adenomas. Such trials should also assess any differential effects associated with risk category (as defined in this guideline).

2 Natural history of progression to colorectal cancer in people at increased risk

What is the natural history of progression to colorectal cancer in people with IBD or adenomas?

Why this is important

There is very limited evidence on the natural history of progression to colorectal cancer, and how factors such as extent of disease, grade of dysplasia and adenoma-related factors affect progression. Long-term studies (ideally with a follow-up of 20 years or longer) should be conducted to determine the natural history of colorectal cancer in

people with IBD or adenomas.

3 Effectiveness of biomarkers for determining level of risk of colorectal cancer

Which biomarkers, including epigenic and genetic markers, are predictors of colorectal cancer? How should these be used to improve risk stratification?

Why this is important

There is no high quality evidence on the predictive value of biomarkers, including epigenic and genetic markers, for colorectal cancer in people with IBD or adenomas. Research should be undertaken to identify the biomarkers that are predictive of colorectal cancer, if any can improve levels of early detection, and how they can be used to improve risk stratification.

4 Adenoma types and risk of colorectal cancer

Does the risk of colorectal cancer depend on the type of adenoma?

Why this is important

There is no high quality evidence on the association between risk of colorectal cancer and some adenoma types (sessile, hyperplastic non-adenomatous). Research should be undertaken to determine if the level of risk of colorectal cancer depends on the adenoma type.

Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the NICE topic page on colorectal cancer.

For full details of the evidence and the guideline committee's discussions, see the full guideline. You can also find information about how the guideline was developed, including details of the committee.

NICE has produced tools and resources to help you put this guideline into practice. For general help and advice on putting our guidelines into practice, see resources to help you put NICE guidance into practice.

Update information

September 2022: We have replaced recommendations 1.1.6 to 1.1.13 on colonoscopy for adults with adenomas with a link to the British Society of Gastroenterology's guidelines on post-polypectomy and post-colorectal cancer resection surveillance.

Minor changes since publication

January 2022: Minor changes to redirect NICE Pathways links.

ISBN: 978-1-4731-4415-6