Clinical practice guidelines

Indications for lower gastrointestinal endoscopy (excluding population screening)

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- *Société Française d'Endoscopie Digestive*
- *Société de Colo-Proctologie*
- *Société de Chirurgie Digestive*
- *Collège National des Généralistes Enseignants*
- *Société de Formation Thérapeutique du Généraliste*
- *Société Française de Gériatrie et de Gérontologie*
- *Société Française de Médecine Générale*
- *Société Française de Pathologie*
- *Société de Radiologie*
- *Société Nationale Française de Médecine Interne*

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I. INTRODUCTION

I.1. Subject of these guidelines

These guidelines update the guidelines on lower gastrointestinal endoscopy published by ANDEM in 1996. They cover indications for lower gastrointestinal endoscopy in all cases except screening for colorectal cancer in the general population and except diagnostic strategies for iron-deficiency anaemia, upper gastrointestinal adenoma, primary sclerosing cholangitis and gastric polyposis in the form of cysts in the gastric fundus.

The focus is on the use of lower gastrointestinal endoscopy for diagnosing neoplasia in all subjects at high risk or very high risk of colorectal cancer, and in specific cases in subjects at average risk of colorectal cancer. The following issues are addressed:

1. Benefits and indications of lower gastrointestinal endoscopy (total colonoscopy or proctosigmoidoscopy versus non-endoscopic investigation, ultrasonography, CT scan, MRI) to look for neoplasia, in the following clinical situations: isolated gastrointestinal symptoms such as abdominal pain, diarrhoea, constipation; chronic or profuse acute rectal bleeding; endocarditis; diverticulosis; before or after organ transplantation.
2. When colon and/or ileal biopsies are useful.
3. Indications and strategy[1] for lower gastrointestinal endoscopy in the monitoring of chronic inflammatory bowel disease (Crohn's disease and ulcerative colitis).
4. Indications and strategy in the monitoring of asymptomatic individuals at very high risk or high risk of colorectal cancer (other than Crohn's disease and ulcerative colitis).
5. Indications and strategy for endoscopic surveillance after resection of one or more colorectal adenomas (non-transformed adenomas (benign adenomas); transformed adenomas (non-invasive and invasive cancer)).

The guidelines are intended for general practitioners, geriatricians, gastroenterologists, coloproctologists, radiologists, oncologists, pathologists, internal medicine specialists and gastrointestinal surgeons.

I.2. Grading of guidelines

These guidelines were produced using a three-step method (critical appraisal of the literature published since 1996; discussion within a working group; comments by peer reviewers).

Guidelines are graded A, B or C as follows:

- A grade A guideline is based on scientific evidence established by trials of a high level of evidence, e.g. randomised controlled trials of high power and free of major bias, and/or meta-analyses of randomised controlled trials or decision analyses based on properly conducted studies;
- A grade B guideline is based on presumption of a scientific foundation derived from studies of an intermediate level of evidence, e.g. randomised controlled trials of low power, well-conducted non-randomised controlled trials or cohort studies;

[1] The working group used the term “strategy” to cover the type of examination (total colonoscopy or proctosigmoidoscopy), the use of a dye and the intervals at which the examination is performed. The conditions under which colonoscopy is performed, the type of anaesthesia, and treatment strategies, do not fall within the scope of these guidelines.

- A grade C guideline is based on studies of a lower level of evidence, e.g. case-control studies or case series.

In the absence of scientific evidence, the guidelines are based on agreement among members of the working group and peer reviewers.

I.3. Definitions

The following definitions of risk of colorectal cancer were established by the working group after a review of the literature:

- **average risk:** average risk of the population as a whole;
- **high risk**: the risk of individuals
  - with a personal history of colorectal adenoma or cancer;
  - with a first-degree relative under 60 years old, or several first-degree relatives, with colorectal cancer or an advanced adenoma;[2]
  - with chronic inflammatory bowel disease, ulcerative colitis or Crohn's disease if they have long-term disease in the ascending or transverse colon;
  - with acromegaly.
- **very high risk**: the risk of members of a family affected by hereditary cancers such as familial adenomatous polyposis (FAP), Hereditary Non Polyposis Colorectal Cancer (HNPCC) (the new name for Lynch syndrome) and other forms of polyposis carrying a risk of colorectal cancer (juvenile polyposis and Peutz-Jeghers syndrome).

II. EXAMINATION TIME AND USE OF A DYE

- **Crucial stage of examination by lower gastrointestinal endoscopy**

The examination of the rectum and colon while withdrawing the endoscope is the crucial stage in colonoscopy. The false negative rate (overlooked lesions) is inversely related to the time taken to withdraw the colonoscope (grade B). Special attention should be paid to examining the colonic mucosa while withdrawing the colonoscope (grade C).

- **Use of a dye for chromoendoscopy**

Use of a dye (indigo carmine) during colonoscopy (chromoendoscopy) helps to establish the diagnosis and decide on treatment, particularly if a flat lesion is suspected. Indigo carmine should be used when examining patients who have or may have:

- Hereditary non-polyposis colorectal cancer (HNPCC) (grade B);
- chronic inflammatory bowel disease, as part of surveillance (grade B);
- attenuated familial adenomatous polyposis (grade B).

The dye does not differentiate hyperplastic polyps from adenomas with certainty (grade C).

[2] An adenoma is advanced if its size ≥1 cm, or if it contains >25% of villous tissue, or in cases of high grade dysplasia or carcinoma in situ (Vienna classification categories 4.1 or 4.2 (see Annex)).

III. PATIENTS WITH AN AVERAGE RISK OF COLORECTAL CANCER

III.1. Indications

The following guidelines concern indications for lower gastrointestinal endoscopy in patients at average risk of colorectal cancer and who have gastrointestinal symptoms.

- **Patients with isolated gastrointestinal symptoms (abdominal pain and/or diarrhoea and/or constipation)**

Complete colonoscopy is recommended:
- if symptoms appear after the age of 50 (grade C);
- if there is no response to symptomatic treatment in patients under 50 (agreement among professionals).

- **Patients with profuse chronic or acute rectal bleeding**

Complete colonoscopy is recommended:
- if there are chronic, repeated episodes of dark red rectal bleeding irrespective of the patient's age (grade C);
- if there is isolated chronic bright red rectal bleeding in patients over 50 (grade B). In patients under 50, the colon should be examined but the working group could not decide between flexible proctosigmoidoscopy or complete colonoscopy as a first line examination (agreement among professionals);
- in patients with acute and profuse rectal bleeding (complete colonoscopy with oral preparation) as soon as the patient's condition allows (grade C).

- **Patients with symptomatic diverticulosis of the colon**

- Colonoscopy is not indicated for surveillance of diverticulosis of the colon (agreement among professionals).
- Lower gastrointestinal endoscopy is contraindicated when acute inflammation due to diverticulosis of the colon has already been diagnosed by other methods (agreement among professionals).
- Complete colonoscopy at a time when there are no recent acute complications is recommended if surgery is indicated or neoplasia is suspected (grade C).

- **Other indications**

- **Patients with endocarditis:** Complete colonoscopy is recommended in patients with endocarditis caused by *Streptococcus bovis* or group D streptococci (grade C). There is no evidence to support systematic investigation by lower gastrointestinal endoscopy for other microbial agents.
- **Organ transplant patients:** The working group was unable to make any recommendations on systematic lower gastrointestinal endoscopy before or after organ transplantation in asymptomatic patients (agreement among professionals).

III.2. Role of non-endoscopic imaging

There is no evidence to show that any one non-endoscopic imaging method is better than any other.

- In the event of incomplete colonoscopy: Virtual colonoscopy, water enema CT or double-contrast barium enema is recommended (grade C).

- If endoscopic investigation of the colon is contraindicated, or in the event of suspected perforation or occlusion, or during the early postoperative period: CT scan and/or water enema are recommended (agreement among professionals).

In geriatric patients, age (> 75 years) is not in itself a criterion in the choice of method. The indication for lower gastrointestinal endoscopy will depend on the severity of any concomitant disease and on a multidisciplinary assessment of the degree of autonomy of the patient (agreement among professionals).

IV. COLON AND/OR ILEAL BIOPSIES OF NORMAL ASPECT MUCOSA

If the macroscopic appearance of the mucosa appears normal on endoscopy, colon and/or ileal biopsies are useful:

- **In individuals with chronic diarrhoea**
  - *Non-immunocompromised individuals*: If the macroscopic appearance of the colonic mucosa is normal, multiple biopsies should be taken at set intervals along the colon, in particular to look for microscopic colitis (lymphocytic or collagenous) (grade C). Isolated rectal biopsies are not sufficient (grade B). The mucosa of the terminal ileum should also be examined (grade C). If its appearance is normal, routine biopsies are not recommended because their diagnostic performance is poor (agreement among professionals).
  - *Immunocompromised individuals:* Systematic biopsies should be taken, particularly from the right colon and ileum, to look for opportunist infection (grade C).

- **In the diagnosis of chronic inflammatory bowel disease**

Published data do not recommend any specific biopsy sites that will increase the chances of finding epithelioid granulomas when searching for Crohn's disease. To look for histological signs of disease, multiple biopsies should be taken at set intervals and their location should be clearly recorded (grade C).

V. SURVEILLANCE OF INDIVIDUALS AT HIGH / VERY HIGH RISK OF COLORECTAL CANCER

V.1. Surveillance of chronic inflammatory bowel disease (Crohn's disease and ulcerative colitis)

Patients with chronic colitis such as Crohn's disease or ulcerative colitis should undergo endoscopic surveillance by complete colonoscopy every 2-3 years starting

- 10 years after onset of pancolitis (involvement proximal to the splenic flexure) (grade B);
- 15 years after onset of left side colitis (grade B).

Biopsies should be taken every 10 cm to give a minimum of 30 biopsies (grade C). There is no evidence to support the systematic use of chromoendoscopy to reduce the number of biopsies. Chromoendoscopy is useful for targeting additional biopsies on protruding lesions to diagnose dysplasia (agreement among professionals)

Management depends on the results of the colonoscopy:

- *In the case of undetermined dysplasia*, the patient should undergo control biopsies at 6 months (agreement among professionals).
- *In low grade and high grade dysplasia* (Vienna classification categories 3 and 4), the diagnosis needs to be confirmed by a second pathologist before deciding on treatment (grade C).
- *If there are polypoid lesions*, the lesion and the adjacent mucosa should be biopsied in order to establish whether the lesion is a sporadic adenoma (adjacent mucosa healthy) or a dysplasia-associated lesion or mass (DALM) (adjacent mucosa abnormal) (grade C).

V.2. Surveillance of asymptomatic individuals at very high risk of colorectal cancer

- **Familial adenomatous polyposis (FAP)**

- *FAP phenotype:* Relatives of an individual with FAP should undergo lower gastrointestinal endoscopy if it has been proven that they carry a mutation of the APC gene or if it cannot be confirmed that they do not (grade B). Flexible proctosigmoidoscopy is performed annually (agreement among professionals) from the age of 10-12 years (grade B). In patients with ileorectal anastomosis after colectomy, it is recommended that the remaining rectum be monitored by flexible proctosigmoidoscopy (grade B), annually (agreement among professionals).
- *Attenuated FAP phenotype:* Members of families affected by a mutation of the gene associated with the attenuated FAP phenotype should undergo complete colonoscopy with chromoendoscopy (agreement among professionals), annually after the age of 30 (grade B).
- *Other mutations*: If polyposis of the colon is diagnosed in an individual of a family with no mutation of the APC gene, tests for mutations of other genes (MYH) should be considered. If a mutation of the MYH gene is present, complete colonoscopy is recommended at 30 years of age (grade B). If the results of colonoscopy are negative, no specific surveillance programme can be recommended.

- **Hereditary non-polyposis colon cancer (HNPCC)**

Surveillance by complete colonoscopy is recommended every 2 years (grade C) from age 20-25 years (grade B) in relatives carrying a HNPCC-associated mutation or if it cannot be confirmed that they do not. It should be continued every two years (agreement among professionals) after surgery for the first colorectal cancer, to look for any metachronous lesions (grade C).

- **Juvenile polyposis and Peutz-Jeghers syndrome**

Relatives of an individual with juvenile polyposis should undergo complete colonoscopy every 2–3 years from age 10-15, or earlier if there are symptoms (grade C). The same colonoscopy surveillance schedule applies to individuals with juvenile polyposis.

Relatives of an individual with Peutz-Jeghers syndrome, without any symptoms, should undergo surveillance by complete colonoscopy at age 18 (grade C), and every 2-3 years

thereafter. The same colonoscopy surveillance schedule applies to individuals with juvenile polyposis.

V.3. Surveillance of asymptomatic individuals at "high" risk of colorectal cancer (apart from Crohn's disease and ulcerative colitis)

- **Family history of colon cancer**

Individual screening by colonoscopy is recommended:

- in subjects with a history of colorectal cancer in a first-degree relative (father, mother, brother, sister, child) occurring before the age of 60;
- if there are two or more instances of a family history in a first-degree relative, irrespective of age of cancer diagnosis (grade B).

Surveillance should start at age 45, or 5 years before the age at which colorectal cancer was diagnosed in the index case (grade C). After 3 normal colonoscopies at 5-year intervals, the time between examinations may be extended. When estimated life expectancy is less than 10 years, surveillance may be stopped (agreement among professionals). In patients with non-advanced adenoma, if there is a family history of colorectal cancer in a first-degree relative, the patient should undergo control colonoscopy at 3 years (grade B).

There is no evidence for specific screening or surveillance strategies:

- if there is a family history of onset of colorectal cancer after age 60 in a first-degree relative, even though the risk of colorectal cancer is higher than in the general population;
- if there is a family history in a second-degree relative (grandparents, uncles and aunts) (agreement among professionals).

- **Family history of colonic adenoma**

Individual screening by colonoscopy should be performed if there is a family history of adenoma in a first-degree relative before age 60 (grade B). Surveillance should begin at age 45, or 5 years before the age at which adenoma was diagnosed in the index case (grade C).

- **Personal history of colorectal cancer**

After resection surgery for colorectal cancer:

- If colonoscopy before surgery was incomplete: control colonoscopy should be performed within 6 months (agreement among professionals), then at 2-3 years, then at 5 years if normal (grade B).
- If colonoscopy before surgery was complete: control colonoscopy should be performed at 2-3 years and then at 5 years if normal (grade B).

After 3 normal colonoscopies, intervals between surveillance examinations may be extended. When estimated life expectancy is less than 10 years, surveillance may be stopped (agreement among professionals).

- **Acromegaly**

Patients with acromegaly are at high risk of colorectal cancer (grade B) and should undergo screening by colonoscopy (grade C) once the diagnosis of acromegaly has been confirmed. Subsequent surveillance depends on the results of the colonoscopy. In the event of

neoplasia, surveillance should be the same as for the population at high risk of colorectal cancer without acromegaly (agreement among professionals).

VI. SURVEILLANCE OF PATIENTS AFTER RESECTION OF ONE OR MORE COLORECTAL POLYPS

VI.1. Hyperplastic polyps

After resection of hyperplastic polyps, patients should be monitored by complete colonoscopy at 5 years (agreement among professionals), when the polyps are:

large (≥ 1 cm) (grade C)
or multiple (n ≥ 5) and located in the colon (grade C)
or located on the proximal colon in a patient with a family history of hyperplastic polyposis (grade C).

When the results of colonoscopy performed at 5 years are normal, the patient should be monitored 10 years later (i.e. at 15 years) if there is no family history of hyperplastic polyposis (agreement among professionals). Published data do not support any specific surveillance schedule if there is a family history of hyperplastic polyposis.

Surveillance of patients with small rectosigmoid hyperplastic polyps is not recommended (agreement among professionals).

VI.2. Low grade dysplasia and advanced adenoma

An adenoma is by definition dysplastic. An adenoma at the low grade dysplasia stage ("benign" adenoma) belongs to category 3 of the Vienna classification (see annex). An advanced adenoma (see footnote on page 4) belongs to category 4.1 or 4.2 of the Vienna classification.

- **Incomplete resection**

If there is a suspicion of partial resection or histological confirmation of incomplete resection of an adenoma (low grade dysplasia or advanced adenoma), the patient should be monitored by colonoscopy at 3 months (agreement among professionals).

- **Complete resection**

If resection is complete, the patient should be monitored by colonoscopy at 3 years in the event of:

advanced adenoma (grade B);
or multiple (≥ 3) adenomas (grade B);
or adenoma in a patient with a family history of colorectal cancer (grade B).

If colonoscopy at 3 years is normal, the patient should be monitored by colonoscopy 5 years later (i.e. at 8 years) (grade C). After two normal surveillance colonoscopies 5 years apart

(i.e. at 8 years and 13 years), the patient should be monitored 10 years later (i.e. at 23 years) (agreement among professionals).

In all other cases (non-advanced adenoma, fewer then 3 adenomas, and no family history of colorectal cancer), the first surveillance colonoscopy should be performed at 5 years (grade C). After two normal surveillance colonoscopies 5 years apart (i.e. at 5 years and 10 years), the patient should be monitored 10 years later (i.e. at 20 years) (agreement among professionals).

Surveillance of flat adenomas and serrated adenomas is the same as for adenomas at the low grade dysplasia stage or advanced adenomas (grade C), i.e. surveillance colonoscopy at 3 or 5 years depending on adenoma size, villous tissue content (> 25%), degree of dysplasia and extent of any family history of colorectal cancer (agreement among professionals).

VI.3. Transformed adenoma

An adenoma is “transformed” when it has a localised or extended focus of superficial adenocarcinoma, irrespective of the extent and depth of infiltration. Transformed adenoma belongs to categories 4.3, 4.4 and 5 of the modified Vienna classification. The classification draws a clear distinction between superficial adenocarcinoma with no risk of lymphatic invasion (categories 4.3 and 4.4 or WHO pTis) and adenocarcinoma with risk of lymph node invasion (category 5 or WHO pT1).

If a category 4 transformed adenoma is resected endoscopically in one piece and complete resection is confirmed histologically, the patient should undergo endoscopic surveillance at 3 years (grade C).

After endoscopic resection of a transformed adenoma, the patient should undergo early endoscopic surveillance at 3 months, then at 3 years, in either of the following cases:

- in category 4 neoplasia (pTis in the WHO classification) when there is any doubt whether resection was complete (agreement among professionals)
- in category 5 neoplasia (submucosal invasion by carcinoma, pT1 of the WHO classification) when an additional colectomy has not been decided (agreement among professionals).

VII. CONCLUDING REMARKS

The above surveillance schedules are summarized in Table 1.

Anaes Clinical Practice Guidelines
Summary of indications for lower gastrointestinal endoscopy

The guidelines address the role of lower gastrointestinal endoscopy in diagnosing neoplasia:

- in special clinical situations for subjects at average risk of colorectal cancer,
- in subjects at high and very high risk of colorectal cancer.

Indications in patients at average risk of colorectal cancer (CRC):

1. **Patients with isolated gastrointestinal symptoms such as abdominal pain and/or diarrhoea and/or constipation:** Complete colonoscopy is recommended if these symptoms occur:
   a. after age 50,
   b. before age 50, in the absence of response to symptomatic treatment.
2. **Patients with profuse chronic or acute rectal bleeding:** Complete colonoscopy is recommended:
   a. if there are chronic repeated episodes of dark red rectal bleeding, irrespective of patient age,
   b. if there is isolated chronic bright red rectal bleeding**,** occurring after age 50**,**
   c. if there is acute profuse rectal bleeding, as soon as the patient's clinical condition allows.

   If there is isolated chronic bright red rectal bleeding before age 50, either flexible proctosigmoidoscopy or complete colonoscopy may be used as a first line examination.
3. **Symptomatic diverticulosis of the colon:** Complete colonoscopy is contraindicated when acute inflammation due to diverticulosis of the colon has already been diagnosed by other methods. Complete colonoscopy is recommended at a time when there are no acute complications, if surgery is indicated or neoplasia is suspected.
4. **Endocarditis:** Complete colonoscopy is recommended if endocarditis is caused by *Streptococcus bovis* or a group D streptococcus.
5. **Before or after organ transplant in asymptomatic patients:** Insufficient data for a guideline.

Indications in patients at high or very high risk of CRC:

1. **Surveillance of inflammatory bowel disease (IBD) (Crohn's disease and ulcerative colitis):** The patient should undergo complete colonoscopy with biopsies (every 10 cm, at least 30 biopsies):
   a. for pancolitis (involvement proximal to the splenic flexure), 10 years after onset of disease, then every 2-3 years,
   b. for left side colitis, 15 years after onset of disease, then every 2-3 years.

   In the event of:
   - Undetermined dysplasia: Endoscopic surveillance and biopsies after 6 months.
   - Low grade or high grade dysplasia (categories 3 and 4 of the Vienna classification): Confirm diagnosis by a second pathologist before deciding on treatment.
   - Polypoid lesions: Biopsy of the lesion and adjacent flat mucosa.
2. **Surveillance of asymptomatic subjects at very high or high risk of CRC:** see Table 1.

Indications for colon and/or ileal biopsies (macroscopic appearance of mucosa normal):

1. **If the patient has chronic diarrhoea, look for:**
   a. microscopic colitis in non-immunocompromised subjects: rectal and sigmoid biopsies.
   b. opportunist infection in immunocompromised subjects: ileal and colon biopsies.
2. **Investigation of suspected IBD:** Take multiple biopsies at set intervals along the colon and clearly record their location.

Table 1. Surveillance schedules and methods for each indication of lower gastrointestinal endoscopy

	Start surveillance (Age – years)	Surveillance schedule	Method used
Surveillance of asymptomatic subjects at very high risk of CRC			
FAP *Relatives of a patient with FAP*	10-12	Every year	Flexible proctosigmoidoscopy
FAP after colectomy surveillance of remaining rectum		Every year	Flexible proctosigmoidoscopy
Attenuated FAP *Relatives of a patient with attenuated FAP*	30	Every year	Complete colonoscopy
Polyposis of the colon with MYH mutation	30	No recommendation	Complete colonoscopy
HNPCC *Relatives of a patient with HNPCC*	20-25	Every 2 years	Complete colonoscopy
HNPCC after colon surgery		Every 2 years	Complete colonoscopy
Juvenile polyposis *Relatives of an affected patient and the affected patient*	10-15	Every 2-3 years	Complete colonoscopy
Peutz-Jeghers syndrome *Relatives of an affected patient and the affected patient*	18	Every 2-3 years	Complete colonoscopy
Surveillance of asymptomatic subjects at high risk of CRC			
Family history of CRC * in one first-degree relative before age 60 * in several first-degree relatives irrespective of age	45 or 5 years before age of index case diagnosis	Surveillance at 5 years, then* 2 colonoscopies 5 years apart, then* extend intervals between exams	Complete colonoscopy
Family history of CRC in first-degree relative and discovery of non-advanced adenoma		Surveillance colonoscopy at 3 years	Complete colonoscopy
Family history of colonic adenoma * in first-degree relative before age 60	45 or 5 years before age of index case diagnosis	Depending on result of 1st colonoscopy	Complete colonoscopy
Personal history of CRC: * If preoperative colonoscopy was incomplete * If preoperative colonoscopy was complete		Surveillance at 6 months, then* at 2-3 years, then at 5 years Surveillance at 2-3 years, then* at 5 years.	Complete colonoscopy Complete colonoscopy
Patient with acromegaly	At acromegaly diagnosis		Complete colonoscopy

* If the results of the colonoscopy are normal.

Table 1 (contd). Surveillance schedules and methods for each indication of lower gastrointestinal endoscopy

	Surveillance schedule	**Method used**
Surveillance of asymptomatic subject at high risk of CRC, after resection of colorectal polyps		
Hyperplastic polyps		
After resection of one hyperplastic polyp ≥ 1 cm and/or multiple polyps (n ≥ 5) in the colon and/or in the proximal colon if there is a family history of hyperplastic polyps	Surveillance at 5 years, then* at 10 years	Complete colonoscopy
Adenoma at the low grade dysplasia stage and advanced adenomas[1]		
Incomplete resection of an adenoma at the low grade dysplasia stage (category 3) or advanced adenoma (category 4.1 and 4.2)	Surveillance at 3 months	Complete colonoscopy
Complete resection of an advanced adenoma, or of multiple adenomas ≥ 3 or of an adenoma in a patient with family history of CRC	Surveillance at 3 years, then two colonoscopies 5 years apart, then at 10 years.	Complete colonoscopy
Complete resection of a non-advanced adenoma and multiple adenomas < 3 and no family history of CRC	Surveillance at 5 years, then* colonoscopy at 5 years then* at 10 years.	Complete colonoscopy
Transformed adenoma		
Incomplete resection of a category 4 transformed adenoma	Surveillance at 3 months, then* at 3 years	Complete colonoscopy
Complete resection of a category 4 transformed adenoma	Surveillance at 3 years	Complete colonoscopy
Resection of a category 4 transformed adenoma without additional colectomy	Surveillance at 3 months, then* at 3 years	Complete colonoscopy

* If the results of the colonoscopy are normal.
CRC: colorectal cancer; FAP: familial adenomatous polyposis

ANNEX: Revised Vienna classification of gastrointestinal epithelial neoplasia and superficial gastrointestinal cancers[6]

Vienna classification		WHO (2000)
Category 1	Negative for neoplasia*	
Category 2	Indefinite for neoplasia	
Category 3	Low grade neoplasia	
Category 4	High grade neoplasia	
	4.1 - High grade adenoma/dysplasia	
	4.2 - Non invasive carcinoma (carcinoma in situ)	pTis
	4.3 - Suspicious for invasive carcinoma	
	4.4 - Intramucosal carcinoma	
Category 5	Submucosal invasion by carcinoma	pT1

*Neoplasia = adenoma and adenocarcinoma

The revised Vienna classification (2002) differs from the original Vienna classification (2000) with regard to neoplasia Category 4.4 (5.1 in the original Vienna classification). It draws a clear distinction between superficial adenocarcinoma with no risk of lymphatic invasion (categories 4.3 and 4.4 or WHO pTis) and adenocarcinoma with risk of lymph node invasion (category 5 or WHO pT1).

The Vienna classification distinguishes an intramucosal stage of carcinoma which corresponds to invasion of the lamina propria of the mucosa, with no risk of lymph node invasion (there is no lymphatic system in the mucosa).

[6] Dixon MF, Gut 2002; 51: 130-131.