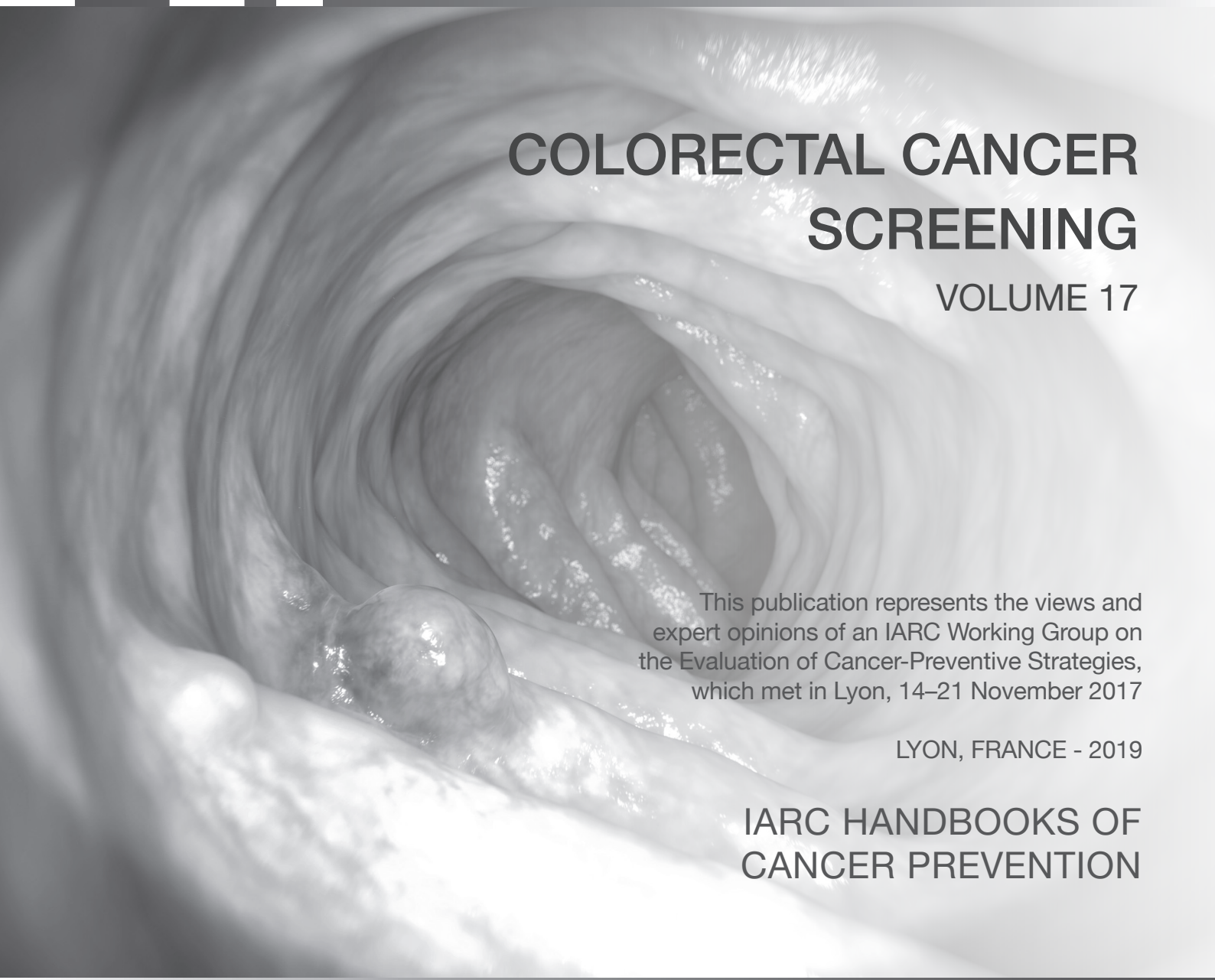
IARC HANDBOOKS



COLORECTAL CANCER SCREENING

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IARC HANDBOOKS OF CANCER PREVENTION

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GLOSSARY

Adenoma detection rate	The proportion of screening examinations (by colonoscopy or other means) in which at least one adenoma is detected.
Advanced adenoma	An adenoma with a size of more than 10 mm and/or with tubulovillous or villous architecture and/or with high-grade neoplasia.
Advanced neoplasia	Advanced neoplasia includes both advanced adenoma and invasive cancer.
Background incidence rate	The incidence rate expected in the absence of screening.
Classical adenoma	A classical colorectal adenoma is a benign, premalignant neoplasm composed of dysplastic epithelium. The descriptor "classical" distinguishes this type of adenoma from lesions in the serrated pathway.
Colonoscopy	Endoscopic examination of the proximal and distal parts of the colon (large bowel) with a charge-coupled device camera or a fibre-optic camera on a flexible tube passed through the anus.
Colorectal cancer detection rate	The proportion of screening examinations (by colonoscopy or other means) in which at least one cancerous lesion is detected.
Colorectal cancer incidence rate	The rate at which new cases of colorectal cancer occur in a population. The numerator is the number of newly diagnosed cases of colorectal cancer that occur in a defined time period. The denominator is the population at risk of a diagnosis of colorectal cancer during this defined period, sometimes expressed as person–time at risk during that period.
Colorectal cancer mortality rate	The rate at which deaths from colorectal cancer occur in a population. The numerator is the number of colorectal cancer deaths that occur in a defined time period. The denominator is the population at risk of dying from colorectal cancer during this defined period, sometimes expressed as person–time at risk during that period.
Colorectal cancer register	A record of information on all new cases of colorectal cancer and deaths from colorectal cancer that occur in a defined population.
Completion rate	The proportion of examinations completed to the desired extent: the junction of the sigmoid and the descending colon for sigmoidoscopy; the caecum for colonoscopy.
Conscious sedation	An induced state of sedation characterized by a minimally depressed consciousness such that the patient is able to continuously and independently maintain a patent airway, retain protective reflexes, and remain responsive to verbal commands and physical stimulation.
Coverage by examination	Population-based screening programmes: subjects having performed the recommended test during the reference year / number of subjects in the eligible population for the same year (total target population/screening interval). Non-population-based screening programmes/opportunistic settings: subjects up-to-date with the recommended screening protocol / target population.

Deep sedation	An induced state of sedation characterized by depressed consciousness such that the patient is unable to continuously and independently maintain a patent airway and experiences a partial loss of protective reflexes and of the ability to respond to verbal commands or physical stimulation.
Disability-adjusted life years	A measure of overall disease burden, expressed as the number of years lost due to ill health, disability, or early death. This measure was developed in the 1990s as a way of comparing the overall health and life expectancy in different countries.
Distal colon	The last section of the colon. The distal colon includes the descending colon (the left side of the colon) and the sigmoid colon (the S-shaped section of the colon that connects to the rectum).
Effectiveness	A measure of the extent to which screening, when deployed in the field under real conditions, does what it is intended to do for a specified population. The most important indicator of the effectiveness of a colorectal cancer screening programme is its effect in reducing colorectal cancer mortality.
Efficacy	The extent to which screening produces a beneficial result under ideal conditions. Randomized controlled trials, which are conducted to initially assess whether screening works, assess efficacy by estimating a primary outcome, such as reduction in colorectal cancer mortality in the study arm compared with the control arm.
Eligible population	The adjusted target population, i.e. the target population minus those people who are excluded according to screening policy on the basis of eligibility criteria other than age, sex, and geographical location.
Examination coverage	Annual examinations as a percentage of the annual target population.
False positive	A test result indicating that a person has colorectal cancer when the person does not have colorectal cancer.
Faecal occult blood test (FOBT)	A laboratory test used to assess stool samples for hidden (occult) blood. Occult blood in the stool may indicate colon cancer or polyps in the colon or rectum.
gFOBT, high-sensitivity	A newer form of the guaiac faecal occult blood test, with increased sensitivity.
gFOBT, low-sensitivity	The first generation of the guaiac faecal occult blood test, without rehydration.
Faecal immunochemical test (FIT)	A faecal occult blood test based on an immunological (antigen–antibody) reaction, where the antibody binds exclusively to human haemoglobin. FIT only detects human blood from the lower intestines.
Interval cancer	A colorectal cancer in an individual who had a result in a screening test, with or without further assessment, that was negative for malignancy, which was diagnosed either (i) before the next invitation to screening was due or (ii) within a period equal to a screening interval for an individual who has reached the upper age limit for screening.
Interval cancer rate	The number of interval cancers diagnosed within a defined period since the last negative result in a screening examination, per 1000 people with negative results.
Invitation coverage	Annual invitations as a percentage of the annual target population.
Lead time	The period between when a cancer is found by screening and when it would have been detected from clinical signs and symptoms (not directly observable) in the absence of screening.
Length bias	The bias towards detection of cancers with longer sojourn times, and therefore a better prognosis, by screening.
Opportunistic screening	Screening outside an organized or population-based screening programme, as a result of, for example, a recommendation made by a health-care provider during a routine medical consultation, a consultation for an unrelated condition, on the basis of a possibly increased risk of developing colorectal cancer (family history or other known risk factor), or by self-referral of individuals. Opportunistic screening relies on individual health-care providers taking the initiative to offer screening or to encourage individuals to participate in a screening programme, or to undertake screening outside the context of any programme. Such examinations can be performed according to the public screening policies, where they exist.
Organized screening	Screening programmes organized at national or regional level, with an explicit policy, a team responsible for organization, invitation, and health care, and a structure for quality assurance.
Overdiagnosis	The diagnosis of a colorectal cancer as a result of screening that would not have been diagnosed in the patient's lifetime if screening had not taken place.
Participation rate	The number of people who have a screening test as a proportion of all people who are invited to attend screening (annual examinations as a percentage of annual invitations).

Polyp	A polyp is an abnormal tissue growth that involves the most superficial (mucosal) layer of the colon wall. Endoscopically, polyps are described according to their macroscopic appearance and can be broadly divided into two types. Polyps attached to the mucosa by a stalk are designated as pedunculated, and polyps without a stalk are designated as sessile. These distinctions, along with further subtypes of sessile polyps according to the size of the peduncle, are distinguished by consensus descriptions known as the Paris classification.
Positive predictive value	The proportion of all positive results at screening that lead to a diagnosis of cancer.
Prevalence	The proportion of a population that exhibit a disease (classified as cases) at a single point in time. Approximately the product of the incidence and the average duration of the disease.
Proctosigmoidoscopy	An examination of the rectum and the lower part of the colon, using a thin, lighted instrument called a sigmoidoscope; the term "sigmoidoscopy" is preferred for convenience.
Proximal colon	The first and middle sections of the colon. The proximal colon includes the caecum (a pouch that connects the small intestine to the colon), the ascending colon (the right side of the colon), and the transverse colon (the part of the colon that goes across the body between the right and left sides of the colon).
Quality-adjusted life years	A generic measure of disease burden, including both the quality and the quantity of life lived. One quality-adjusted life year equates to one year in perfect health; if an individual's health is below this maximum, quality-adjusted life years are accrued at a rate of less than 1 per year; being dead is associated with 0 quality-adjusted life years.
Rehydration	The process by which faecal occult blood test samples are rehydrated before analysis. When samples are rehydrated, the analytical sensitivity of the test is higher, but more false-positive results are obtained.
Screening interval	The interval between two screening episodes, within a screening programme or in an opportunistic setting.
Screening policy	A policy for a specific screening programme that defines the targeted age group and sex group, the geographical area, and other eligibility criteria; the screening test and interval; and requirements for payment or co-payment, if applicable. As a minimum, the screening protocol and repeat interval and determinants of eligibility for screening are stated.
Sensitivity	The proportion of truly diseased persons in the screened population who are identified as diseased by the screening test. The more general expression for "sensitivity of the screening programme" refers to the ratio of true positives (colorectal cancers correctly identified at the screening examination) / [true positives + false negatives] (colorectal cancers not identified at the screening examination, detected as interval cases).
Serrated polyps	Colorectal serrated lesions and polyps are characterized by a serrated (sawtooth or stellate) architecture of the epithelium.
Sigmoidoscopy	Endoscopic examination of the rectum and sigmoid colon, potentially also examining the descending colon, splenic flexure, and distal transverse colon. There are two types of sigmoidoscopy: flexible sigmoidoscopy, which uses a flexible endoscope, and rigid sigmoidoscopy, which uses a rigid device. Flexible sigmoidoscopy is the preferred and most commonly used method nowadays. In this *Handbook*, unless stated otherwise, the term "sigmoidoscopy" is understood to mean flexible sigmoidoscopy.
Specificity	The proportion of truly non-diseased persons in the screened population who are identified as non-diseased by the screening test (i.e. true negatives / [true negatives + false positives]).
Target population	The age-eligible population for screening, for example all people offered screening according to the policy.