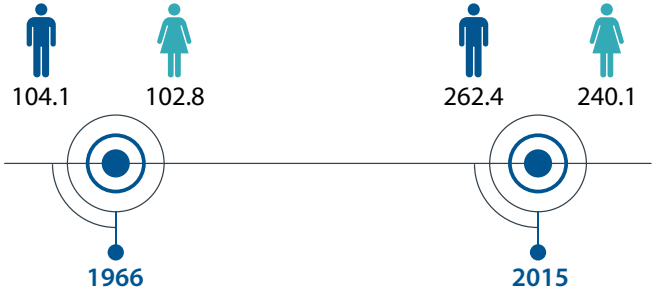
REPUBLIC OF LEBANON
MINISTRY OF PUBLIC HEALTH

National Guidelines for **Colorectal Cancer** Early Detection

Colorectal Cancer Incidence/Prevelance in Lebanon:

In Lebanon,

Cancer incidence continues to increase: 104.1 and 102.8 in 1966 in male and female respectively, in 2015 the incidence of cancer is estimated to 262.4 and 240.1 in male and female respectively.



Similarly the incidence of colorectal cancer (CRC) continues to increase: **25.4 in male** and **20.6 in female** in 2015.

The mean age at diagnosis of CRC in Lebanon is **65years in female** and **66 in male**. With a sex ratio M/F: 1.14.

The total number of cases increased from 464 in 2005 to 781 in 2015 (according to the national cancer registry):

In Lebanon, more than 80% of CRC are diagnosed at advanced stage (T3 and T4).

Worldwide,

Colorectal cancer is most frequently diagnosed among adults aged 65 to 74 years and the median age at death from colorectal cancer is 68 years. It strikes 1 in 20 and both men and women are at equal risks.

CRC is the second leading cause of cancer related deaths for both males and females.

Effectiveness of Early Detection for Colorectal Cancer:

Early detection for colorectal cancer using several methods (tests, procedures) can accurately detect early-stage colorectal cancer and adenomatous polyps. Screening for colorectal cancer in adults aged 50 to 75 years reduces colorectal cancer mortality. The benefit of early detection of and intervention for colorectal cancer declines after age 75 years.

If CRC is found at a localized stage; survival rate can reach 

Population under consideration:

Screening guidelines for CRC is classified into two;

- Screening for population at **"Average Risk"**
- Screening for population at **"Increased Risk"**

"Average risk" of colorectal cancer is defined as **asymptomatic** adults 50 years and older and who do **NOT** have:

- positive family history (excluding known inherited familial syndromes
- a family history of known genetic disorders that predispose them to a high lifetime risk of colorectal cancer, such as
  - Lynch syndrome
  - familial adenomatous polyposis),
- a personal history of inflammatory bowel disease,
- a previous adenomatous polyp, or previous colorectal cancer
- Patient with alarms symptoms (like blood in stool, abdominal pain and change in bowel habits, unexplained weight loss, and others).

"Increased risk" of colorectal cancer is defined as having any of the above, i.e a personal or family history of CRC, related conditions or symptomatic

Target Population:

According to the Statistical Bulletin issued by the MOH-2016, the target population for screening (whether at average risk or at increased risk); **males and females aged 50 to 75 is 798,440**.


380,272


418,168

A projected calculation of the FIT program based on evidence (from Europe and USA) that the positivity rate in average risk individuals is around 5% and the positive predictive value for adenoma is around 50% and for CRC around 3-4%.

Colorectal cancer screening for patients at AVERAGE risk:

Test	Age at initial screening	Frequency
Fecal immunochemical test (FIT)	50 years	Annually through age 75

Colorectal cancer screening for patients at INCREASED risk:

Population	Test	Age at initial screening	Frequency
Personal history			
CRC or adenomatous polyps	colonoscopy	Consult with gastroenterology	Consult with gastroenterology
IBD	colonoscopy	Consult with gastroenterology	Every 1- 2 years
Family History			
1st degree relative with CRC diagnosed at age <60 years Or 1st degree relative with CRC diagnosed at any age	colonoscopy	Whichever comes first: Age 40 Or 10 years prior to earliest age of diagnosis	Every 3-5 years
1st degree relative with CRC diagnosed at age > 60 years	colonoscopy	Age 50	Every 5 years May lengthen interval to every 10 yeqrs after ≥2 negative colonoscopie
1st degree relative with advanced adenoma diagnosed at any age	colonoscopy	Whichever comes first: Age 50 Or Age of diagnosis	Repeat per colonoscopy findings
second-degree relative with CRC diagnosed at age < 50 years	Colonoscopy Repeat per colonoscopy findings.	Age 50	Repeat per colonoscopy findings.

Why FIT Test for screening in average risk group?

There are numerous screening tests to detect early-stage colorectal cancer, including stool-based tests (gFOBT, FIT, and FIT-DNA), direct visualization tests (flexible sigmoidoscopy, alone or combined with FIT; colonoscopy; and CT colonography).

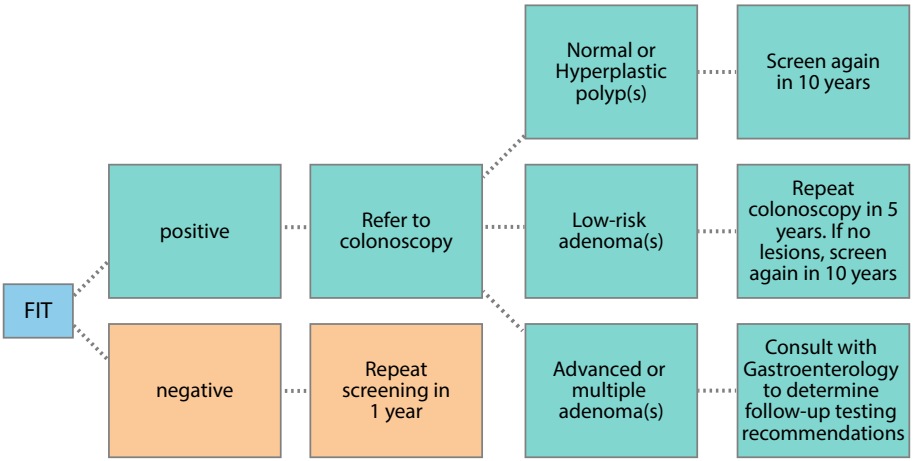
The Lebanese Ministry of Health adopted FIT (fecal immunochemical test) as a screening test for early detection of CRC in average risk groups, since it is a simple method for screening as its net benefit is similar to the more invasive and resource- intensive recommended techniques. It identify intact human hemoglobin in stool, have improved sensitivity compared with gFOBT (guaiac-based fecal occult blood test) for detecting colorectal cancer.

FIT is moderately sensitive (79%), with sensitivity to detect precancerous polyps (20% to 50%), highly specific (94%), and have high overall accuracy (95%) for detecting colorectal cancer (Lee JK, 2014). The optimal cut-off value for enhanced sensitivity and specificity for the best commercially available tests is 100 ng/mL.

It can be done with a single specimen, requires no dietary or medication restrictions and it does not require bowel preparation, anesthesia, or a doctor appointment. Its cost is minimal and conserves colonoscopy resources for patients who are at higher risk and for those who test positive on stool-screening tests.

FIT is not the appropriate test for patients at increased risk for CRC because of family and/or personal history of cancer or other high-risk conditions (e.g., ulcerative colitis).

Follow up after Screening using FIT:



* Only distal hyperplastic polyps are considered to have no malignant potential. Other hyperplastic or serrated polyps follow the same surveillance strategy as adenomas.

When screening result in the diagnosis of colorectal adenomas or cancer according to the algorithm above, patients are followed up with a surveillance regimen, and recommendations for screening using FIT no longer apply.

A particular surveillance regimen after diagnosis and removal of adenomatous polyps or colorectal cancer should be applied.

Advantages of FIT:

- Specimen Can be collected at home, and sample to be sent for lab for analysis
- Single specimen required.
- Minimal handling of stool/specimen.Quick.
- Noninvasive. No risk of bowel tears or infections.
- Does not require a doctor appointment or sedation.
- Requires no advance preparation or loss of time from work
- There is direct evidence that stool screening test (followed by colonoscopy when positive) decreases CRC mortality.

Disadvantages of FIT:

- Requires handling of stool specimens.
- Cannot visually identify polyps.
- Colonoscopy is required if FIT is positive.

Must be done annually to be an effective screening method—adherence is important to the effectiveness of the screening

Summary:

1. There is convincing evidence of benefit associated with colorectal cancer screening (reduces CRC mortality)

2. Screening for colorectal cancer should be started at age 50 years and continue until age 75 years

3. Screening would be most appropriate among adults who
   a. are healthy enough to undergo treatment if colorectal cancer is detected and,
   b. do not have comorbid conditions that would significantly limit their life expectancy

4. recommendation applies to asymptomatic adults 50 years and older who are at average risk of colorectal cancer

5. Adult at high risk should benefit from a special regimen

6. Fecal immunochemical tests (FITs) is recommended for screening annually When screening results in the diagnosis of colorectal adenomas or cancer, patients are followed up with a surveillance regimen

In collaboration with:

Printed with the financial support of: