Impact of program design on rates of unsatisfactory fecal tests in Ontario, Canada

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Objectives

At the end of this presentation, you will have a better understanding of:

• How changes to ColonCancerCheck program design elements have impacted rates of unsatisfactory fecal tests
• Ongoing reasons for unsatisfactory fecal tests in Ontario
• Future directions for continuous program improvement
Ontario's ColonCancerCheck program

• Canada’s first organized province-wide colorectal cancer (CRC) screening program launched in 2008

• Sends letters to eligible people

• Screening offered to people ages 50-74 via primary care provider (PCP)

• Screening test used depends on risk level:
  
  • **Average risk**: fecal immunochemical test (FIT) since June 2019
  
  • **Increased risk** (≥1 first-degree relative with CRC): colonoscopy
Transition to FIT: Goals

- Improve fecal test participation rate amongst eligible Ontarians
- **Reduce the rate of unsatisfactory fecal tests**
- Limit the rate of inappropriate use of fecal tests

guaiac fecal occult blood test (gFOBT)  FIT
gFOBT program design (2008-2019)

- Counselling & distribution
  - Inventory in primary care offices and pharmacies
- At-home test
  - Patient fills in information required for testing
- Return within 21 days
  - Patient includes requisition in return package
- Processing
Unsatisfactory gFOBT results: 2018

Number of unsatisfactory CCC gFOBT kits by month in 2018, by reason

- Indeterminate (incl. missing collection dates)
- Not labelled
- Req w/o card
- Card w/o req
- ID mismatch
- Card damaged
- Card expired
- Specimen expired

Number of gFOBT kits

Month

Unsatisfactory gFOBT results:
FIT program design (2019 onward)

Counselling & Ordering

Centralized distribution of kits

Eligibility & requisition validation

Visual instructions Pre-labelled tests

At-home test

Return with 14 days

Processing

FIT
Unsatisfactory FIT results: Year 1

Number of unsatisfactory CCC FIT kits by month stratified by reason

- No Sample Date
- Sample leaking
- Excess sample
- Late return
- Sample expired
- Other rejection
- Other invalid
- Requisition expired
- Reduced buffer
- No sample
- Expired lot num
- Damaged
- Missing patient info

COVID-19: First wave closures

Volume of FIT kits

Month

Unsatisfactory rate: gFOBT vs FIT

- Indeterminate/Invalid Results:
  - gFOBT: 6.3%
  - FIT pre-COVID: 2.2% (2.9%)
  - FIT (first year): 1.1% (0.9%)

- Rejected Tests:
  - gFOBT: 5.8%
  - FIT pre-COVID: 1.1% (0.9%)
  - FIT (first year): 3.3% (3.9%)

Mean Unsatisfactory Rate:
- gFOBT: 12.1%
- FIT pre-COVID: 3.3% (3.9%)
Challenges addressed through program design changes

- Pre-labelled tests
- Centralized order management and distribution of kits
- Card received without requisition and requisition without card
- Inappropriate orders between screening interval and outside age range
- Expired tests
- Patient ID mismatch with requisition
- Test missing patient ID
FIT instructions

- Successful completion of FIT relies on clear and simple instructions
- Word-light FIT instructions in 20+ languages
- PCPs should review instructions with patients
Current state challenge: Missing/uncertain sample collection date

- Returned samples are often missing the collection date
- **NEW**: Yellow highlighting on FIT label
Current state challenge: Too much stool

- Too much stool is a common reason for an unsatisfactory fecal test

Area for Future Improvement
ColonCancerCheck has implemented strategies including **prelabelled tests** and **centralized ordering and distribution** to work towards the international benchmark for unsatisfactory fecal tests.

- "An inadequate rate [of fecal tests] less than 3% is acceptable, less than 1% is desirable" (Rec 3.9) - *European guidelines for quality assurance in colorectal cancer screening and diagnosis (First Edition)*

- The program will continue to monitor unsatisfactory fecal test rates and assess areas for improvement.
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WEO
World Endoscopy Organization