ACFP 61\textsuperscript{st} ASA: What’s Up Doc?

**COLORECTAL CANCER SCREENING IN ALBERTA:**
**INAPPROPRIATE USE OF THE FECAL IMMUNOCHEMICAL TEST (FIT)**

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Disclosures

• Presenter: Clarence Wong

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CRC Magnitude in Alberta

Colorectal Cancer is the 3rd most diagnosed cancer in Alberta

Colorectal Cancer is the 2nd lethal cancer in Alberta

Introduction

Other, 53.2
Lung, 11.7
Breast, 14.6
Prostate, 14.7
Colorectal, 12.2

Other, 44.1
Lung, 25.7
Breast, 7
Prostate, 5.9
Pancreas, 5.8
Colorectal, 11.5
CRC Screening Guidelines

AVERAGE RISK
Men and Women age 50 - 74

75+ years: consider co-morbidities, risk of screening, general health and life expectancy

- Screen with Fecal Immunochemical Test (FIT) every 1-2 years
- If FIT result is positive refer for colonoscopy
- For colonoscopy services use local CRC screening program (see page 2) or endoscopist
- Wait 10 years after a normal colonoscopy to start or re-start FIT
- If quality of colonoscopy was uncertain, start or re-start FIT 5 years after colonoscopy
“We recommend screening adults aged 50 to 74 years for colorectal cancer with FOBT (either gFOBT or FIT) every two years…”

“We recommend not using colonoscopy as a screening test for colorectal cancer.”
What is FIT?

- Fecal Immunochemical Test
- Primary screening test for colorectal cancer
  - Also detects colonic adenomas
- More sensitive than guaiac
- Antibody to globin
- Colonic bleeding specific
- Never designed as a diagnostic test for symptomatic patients
FIT – Appropriate/Inappropriate Use

In Alberta, FIT is ordered through Primary Care
This is classified as opportunistic screening

Appropriate FIT

- Average Risk CRC Screening
  - Asymptomatic 50-74
- Moderate Risk CRC Screening
  - FHx – FDR > age 60

Inappropriate FIT

- Screening Outside Age range
- Before recommended Screening Intervals
- Diagnostic Testing
Study Aim

• To identify indicators leading to inappropriate use of FIT by referring practitioners as well as best practices to facilitate the appropriate use of FIT.
Methods

• Setting/Population: FIT performed in Alberta

• Data source: Provincial Cancer Screening (PCS) database
  – The PCS database currently has data feeds from the provincial laboratories (Calgary Laboratory Services and Dynalife), Alberta Person Directory and Alberta Cancer Registry.
  – Colonoscopy Data: NACRS (National Ambulatory Care Reporting System), DAD (Discharge Abstract Database), Physician Billing Data
    • AHS Facilities
    • Linked to FIT use

• Time period: October 2014 – January 2016
Methods 2

- Analysis of FIT use, demographics, zonal use, followup of positive and negative results, correlation with colonoscopy

- Study Questions:
  1. Was FIT used outside of recommended age range?
  2. Were appropriate intervals followed for FIT testing?
  3. Was FIT used for diagnostic purposes?
### Fecal Tests in Target Population 2013-2014

**Date** | **Target population** | **Number of people had FIT** | **Provincial screening rate**
--- | --- | --- | ---
Jan 1/13 – Dec 31/14 | 1,060,108 | 443,026 | 41.8%

FIT Introduced November 2013
Distribution of FIT use, by age group, by zone and provincially, July 1 2014 to June 31 2015

Target Age

N=268,408
Percent of FIT+, by age group, Alberta, July 1 2014 to June 31 2015

- <40: 9.1% (n=358)
- 40-49: 6.8% (n=1776)
- 50-74: 9.3% (n=21196)
- 75-84: 15.8% (n=2767)
- >85: 22.2% (n=883)

Total: N=26680

Target Age
Percent of total FIT use by age group, Alberta, April 1 2014 to December 31 2015

![Graph showing the percent of total FIT use by age group in Alberta from April 1, 2014 to December 31, 2015. The graph includes data for different age groups: 40-49, 50-74, 75-84. The target age is indicated with a blue arrow. The graph also shows the percentage of patients who met the lab age cut off notice.](https://www.albertahealthservices.ca)
Number of years colonoscopy was performed before FIT+, all ages, Alberta, November 18 2013 to June 29 2015

N=1183
* in patients who had colonoscopy prior to current FIT+
No Colonoscopy After FIT+

No Followup (N):
- <50: 305
- 50-74: 1912
- 75+: 1068
- Total: 3285

No Followup (%):
- <50: 32.8
- 50-74: 20.3
- 75+: 42.9
- Total: 100%
Reasons FIT+ patients did not receive a follow-up colonoscopy, all ages, Alberta, November 18 2013 to June 29 2015

*individuals who had no colonoscopy follow-up after an index abnormal FIT within 365 days
Distribution of FIT+ patients who were lost to follow-up, by age group, Alberta, November 18 2013 to June 29 2015

- <50 yrs of age (n=230): 12.2%
- 50-74 yrs of age (n=1132): 60.2%
- >75 yrs of age (n=517): 27.5%
<table>
<thead>
<tr>
<th>Number of colonoscopies</th>
<th>Average number of days between colonoscopies</th>
<th>Number of follow-up colonoscopy patients (N=9545)</th>
<th>Percent of follow-up colonoscopy patients</th>
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<tr>
<td>1</td>
<td>n/a</td>
<td>8135</td>
<td>85.2%</td>
</tr>
<tr>
<td>2</td>
<td>134.0</td>
<td>1132</td>
<td>11.9%</td>
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<tr>
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<tr>
<td>4</td>
<td>107.0</td>
<td>44</td>
<td>0.5%</td>
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</tbody>
</table>
Limitations

• Large databases
• FIT ordering opportunistic
• Heterogeneous population
• Extrapolation of diagnostic use
Conclusion

• FIT is an accepted CRC screening tool
• FIT is inappropriately used in some areas within Alberta:
  – Use outside of recommended age range
  – Ordered shorter than recommended interval
  – Ordered for diagnostic care
Next Steps

• Further audits of data
• FIT age cut off
• FIT repeat cut off
• KT regarding FIT and symptomatic care
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