Colonoscopy provider reporting in Ontario, Canada

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Quality in Colonoscopy and Surveillance after CR Neoplasia
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Presenter disclosure

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Relationships with commercial interests:
Not Applicable
Objectives

• To discuss the evidence to support colonoscopy provider reporting
• To describe the approach to colonoscopy provider reporting in Ontario
• To share experiences and learnings from colonoscopy provider reporting in Ontario
Provider reports & performance improvement

Secular Trends?

Bishay et al., Gastrointest Endosc 2020;92:1030-40
Ontario RCT of Provider Reports

• 833 endoscopists
• Report vs no report
• Low performers:
  • PR (1.34 vs 1.11, p=0.02)
  • ADR (1.12 vs 1.04, p=0.12)

Tinmouth et al., AJG 2021;116(10):2042-2051
How does provider reporting work?

Recipient’s Attention

Task: A “gap” in clinical performance

How does provider reporting work?

Recipient’s Attention

A&F

Task: A “gap” in clinical performance

✓ effect on performance

## Feedback: some characteristics

<table>
<thead>
<tr>
<th>MORE effective</th>
<th>LESS effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely &amp; frequent</td>
<td>Discouragement</td>
</tr>
<tr>
<td>Individualized</td>
<td>Praise</td>
</tr>
<tr>
<td>Written +/- verbal</td>
<td>Verbal only</td>
</tr>
<tr>
<td>Non-punitive</td>
<td>Lack of trust in data</td>
</tr>
<tr>
<td>From a trusted colleague or supervisor</td>
<td>Lack of case-mix adjustment</td>
</tr>
<tr>
<td>Tied to “correct solution” information</td>
<td></td>
</tr>
<tr>
<td>Use of action plan/goal setting</td>
<td></td>
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</tbody>
</table>

Hysong SJ et al., Implementation Science 2006;1:9
Ivers N. et al., Cochrane Database Syst Rev 2012;6;CD000259
Van der Veer et al., Int J Med Info 2010;79:325
Provider reporting in complex system

Delivery of colonoscopy

Primary care refers for colonoscopy, n > 10,000

Endoscopist, N ~ 900

Out-of-hospital premises, n ~ 55

Hospitals, n > 100

Regional Cancer Programs, n=14

Network of hospitals, administrators and clinical leads

Ontario Health

ColonCancerCheck (CCC) program

Ontario
14 million people
5 health regions
1 million km²
Overview of Ontario’s Approach to Quality

**Standards and Guidelines:**
- Articulate quality standards for facilities
- Align and integrate standards

**Quality Reporting:**
- Monthly regional GI endoscopy reports
- Annual facility survey
- Annual colonoscopy quality physician reports

**Clinical Leadership:**
- Provincial, regional and facility leadership roles

**Quality Improvement Resources:**
- Develop QI tools and resources
- Lead facilitated feedback QI discussions
13 colonoscopy quality indicators & 19 facility standards identified

Facility, regional & provincial reports commence

Evaluation of facility reports

Facility ADR introduced

Identifiers for post-polypectomy bleeding & outpatient perforation cases introduced

2007: PEBC Guideline for Colonoscopy Quality Assurance in Ontario developed

2008: CCC Program launched

Ontario RCT of provider reports

Physician reports commence

Physician ADR & identifiers for PCCRC introduced

Annual release of physician, facility regional and provincial reports
Key Challenges in Provider Reporting

• Fear of punishment

• Imparting “solutions”

• Cognitive dissonance → question the data

Webster et al., Can J Gastro Hep 2016: http://dx.doi.org/10.1155/2016/4983790
Facilitated Feedback

Model for coaching and facilitating performance feedback:

- Address cognitive dissonance
- Reinforce non-punitive intent
- Develop an action plan

Delivered to subset of endoscopists via Regional Endoscopy Leads

Facilitated feedback 2020

- December 2020: endoscopists received their colonoscopy quality report
- Facilitated feedback (FF) discussions: April – May 2021

### Criteria for FF Discussion Identification

<table>
<thead>
<tr>
<th>Criteria for FF Discussion Identification</th>
<th># endoscopists</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3 thumbs down</strong> (outpatient cecal intubation, outpatient polypectomy and inadequate bowel preparation)</td>
<td>8</td>
</tr>
<tr>
<td><strong>Adverse events</strong></td>
<td></td>
</tr>
<tr>
<td>Outpatient perforations:</td>
<td></td>
</tr>
<tr>
<td>• ≥ 3 events, or</td>
<td></td>
</tr>
<tr>
<td>• 1-2 in 2020 + ≥ 3 events in 2017/2018/2019</td>
<td>7</td>
</tr>
<tr>
<td>Post-polypectomy bleeding:</td>
<td></td>
</tr>
<tr>
<td>• ≥ 4 events</td>
<td>15</td>
</tr>
<tr>
<td>Post-colonoscopy colorectal cancer (PCCRC):</td>
<td>30</td>
</tr>
<tr>
<td>• ≥ 3 events, or</td>
<td></td>
</tr>
<tr>
<td>• 1-2 in 2020 + ≥ 3 events in 2017/2018/2019</td>
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Identifiers provided

+ Individual endoscopist communication
Lessons learned

• Data/coding issues: duplicate cases/histology

• Timeliness issues

Colonoscopy 6mos CRC dx REPORT

2017 2020
Lessons learned

• Data/coding issues: duplicate cases/histology

• Timeliness issues

• Endoscopist felt blamed

“This patient has had long standing ulcerative colitis and I was doing regular screening colonoscopy... biopsies showed focal low grade dysplasia and therefore a repeat colonoscopy was done few months later. The repeat colonoscopy showed a very subtle 10mm polyp in the rectum which was removed and the pathology showed adenocarcinoma.”
Blame: Classifying PCCRCs

Not all PCCRCs are the same!

- PCCRCs can be classified into different categories

**Screening = FIT**

**Surveillance = colonoscopy**

<table>
<thead>
<tr>
<th>Interval Type</th>
<th>Non-Interval Types</th>
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<tbody>
<tr>
<td>Type A*</td>
<td>Type B</td>
</tr>
<tr>
<td>Detected before recommended screening/surveillance interval</td>
<td>Detected after recommended screening/surveillance interval</td>
</tr>
<tr>
<td>Type C</td>
<td>When no screening/surveillance interval has been set</td>
</tr>
</tbody>
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**Patient delays surveillance**

**Non-technical endoscopist issue**

**LST seen at index; definitive Rx delay**

Blame: Framing the message as QI issue

- Almost all quality improvement problems have multifactorial causes
Considerations for measuring PCCRCs

• Look back vs look forward

• Interval: PCCRC-3yr vs -4yr vs other?

• How to handle “high-risk”: sub-populations (IBD, prior CRC)?
Ontario’s colonoscopy provider reporting system
• All endoscopists in province annually
• Evidence- and theory-based based
• Critical supplemental strategies
• Integrated into a system-wide approach to quality
• Evolves over time, responsive
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