INTRODUCTION

• There are lengthening wait lists for colonoscopy in Canada.
• Delivery of timely service is partly dependent on efficient use of resources.1

OBJECTIVE

• The aim of this study was to measure endoscopy unit quality indicators in the context of a national colonoscopy practice audit program.

METHODS

• Colonscopy data were gathered in real time by individual endoscopists over periods of at least 2 weeks using data collection software (ReForm XT, Goanywhere Software, Tulsa, OK) on a smartphone (Treo 650, Palm Inc., Mississauga, ON) (Figure 1).

• Additional procedure data recorded included:
  ✓ Patient’s age bracket
  ✓ Specific indications for colonoscopy (e.g. signs, symptoms, family history, etc.)
  ✓ Insertion and withdrawal times
  ✓ The extent of the examination (cecal intubation, terminal ileum, etc)
  ✓ Findings (number of polyps, biopsies)
  ✓ Sedation
  ✓ Immediate complications

• Data were downloaded to the secure website (ECD Solutions; Atlanta, GA) for subsequent review and comparison of personal data with previous data and comparison with national data (Figure 3).

• Reasons for colonoscopy were classified as ‘investigation of abnormality’ (INV), ‘screening’ (SCR) and ‘surveillance’ (SUR).

• Bowel preparation quality was rated using the Ottawa bowel preparation scale (Figure 2). Scores of 0-4 = excellent; scores of 11-14 = poor.2,3

DISCUSSION & SUMMARY

• Most patients in this series have good quality bowel preparation. A minority of examinations was graded as poor.
• Many patients undergoing screening colonoscopy were less than 50 years old and some were more than 70 years old, suggesting that surveillance guidelines may not have been followed.
• These data suggest possible overuse of screening examinations in a relatively young population, particularly in the average-risk group.
• Adherence to guidelines may reduce unnecessary pressure on colonoscopy resources.
• Point-of-care data collection on reasons for colonoscopy and quality of bowel preparation: ⇒ Will permit practice audit by physicians and endoscopy units
• May improve resource utilization in the delivery of colonoscopy services.

Support for this research was provided by the Canadian Association of Gastroenterology.


RESULTS

• Data collection was performed from February to September 2008.
• Forty-five endoscopists (34 gastroenterologists and 11 general surgeons) reported on 822 colonoscopic procedures (mean number 18.3 per physician).

• Thirteen communities were involved, including academic and community practices, in Nova Scotia, Alberta, Ontario, British Columbia, Saskatchewan, Manitoba, and Quebec.

• The majority of bowel preparations in this series (73.9%) was rated as excellent.192 (23.4%) bowel preparations were graded as fair but only 22 (2.7%) of preparations were poor quality.

• Surveillance colonoscopies (Table 1): ⇒ 20% in this series were performed in subjects less than 50 years old.
⇒ 8% were performed in subjects who were over 70 years old.

• Eighteen percent of surveillance colonoscopies (Table 1): ⇒ 24% were performed less than 2 years from the previous examination.
⇒ 4% were performed more than 10 years from the last examination.

Table 1. Percentages [95% CI] of patients with respect to interval since last colonoscopy and age.

<table>
<thead>
<tr>
<th>Interval (yrs)</th>
<th>SCR (N=324)</th>
<th>SUR (N=145)</th>
</tr>
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<tbody>
<tr>
<td>Never</td>
<td>62.7 (57.1-67.9)</td>
<td>3.4 (2.1-1.7)</td>
</tr>
<tr>
<td>1-2</td>
<td>12.8 (10.6-15.4)</td>
<td>17.9 (12.2-25.2)</td>
</tr>
<tr>
<td>3-5</td>
<td>11.4 (8.2-15.4)</td>
<td>40.0 (32.0-48.5)</td>
</tr>
<tr>
<td>6-10</td>
<td>21.6 (17.3-26.5)</td>
<td>28.3 (21.1-36.4)</td>
</tr>
<tr>
<td>&gt;10</td>
<td>3.3 (1.5-5.0)</td>
<td>4.3 (1.5-8.8)</td>
</tr>
</tbody>
</table>

Table 3. Summary page of reporting site.

Figure 1. Treo screen views of bowel cleanliness practice audit questions.

Figure 2. The Ottawa Scale.2,3

Figure 3. The Ottawa Scale.2,3