Achieving Quality Indicators in Colonoscopy and Improving Your Adenoma Detection Rates

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Disclosure

Scientific Consultant: Freenome Inc and Iterative Scopes
Why you should care about quality

- Effective
  - Detection and prevention of CRC
  - Reduce missed CRC
- Safe
  - Reducing complications
- Reimbursement
  - MIPS and APMs
  - High value practice
- Patient satisfaction
Why you should care about quality

Performance Information and Physician Compare

Now available! Our new Provider Data Catalog makes it easier for you to search & download our publicly reported data. We’ve also improved Medicare’s compare sites.

This section provides more information about quality measures data and the public reporting plan for Physician Compare. To learn more about Physician Compare’s Statutory Authority, visit the section About Physician Compare: An Overview. Select the question below to view the corresponding answer.
## Quality Metric and Benchmarks

<table>
<thead>
<tr>
<th>Pre-Procedural Metric</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate indication documented</td>
<td>&gt;80%</td>
</tr>
<tr>
<td>Informed Consent</td>
<td>&gt;98%</td>
</tr>
<tr>
<td>Appropriate Surveillance Interval</td>
<td>&gt;=90%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intraprocedure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowel Prep Quality (Adequate)</td>
<td>≥85%</td>
</tr>
<tr>
<td>Cecal Intubation</td>
<td>≥90% all, ≥95% screening</td>
</tr>
<tr>
<td>Adenoma Detection Rate</td>
<td>≥25% All, ≥30% (M), ≥ 20% (F)</td>
</tr>
<tr>
<td>Withdrawal Time (&gt;=6min)</td>
<td>&gt;98%</td>
</tr>
<tr>
<td>Attempted endoscopic removal of polyps before surgery referral</td>
<td>&gt;98%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Post-Procedural Metric</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perforation rate</td>
<td>&lt;1:500 all, &lt;1:1000 screening</td>
</tr>
<tr>
<td>Post-Polypectomy Bleeding incidence</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Surveillance interval recommendation</td>
<td>≥ 90%</td>
</tr>
</tbody>
</table>

Step 1

• Measure Quality indicators
  • Individual physicians
  • Group average
  • Individuals deidentified
  • Individuals identified
  • Post them on the ASC wall
  • Publish online

<table>
<thead>
<tr>
<th>Endoscopist ID: 21314566</th>
<th>Time period: Q1 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of colonoscopies performed</td>
<td>300</td>
</tr>
<tr>
<td>Total number of screening colonoscopies performed</td>
<td>100</td>
</tr>
<tr>
<td>Complete Colonoscopies (excluding cases due to poor prep)</td>
<td>295 (98%)</td>
</tr>
<tr>
<td>ADR (for screening colonoscopy)</td>
<td>31%</td>
</tr>
<tr>
<td>Withdrawal time (procedures where no polypectomy or biopsies performed)</td>
<td>8.2 min ± 1.15 min</td>
</tr>
<tr>
<td>Number of Colonoscopies with inadequate bowel prep</td>
<td>5 (2%)</td>
</tr>
</tbody>
</table>
Measure and report

• Patients are encouraged to ask the endoscopist their ADR

Public ‘Report Cards’

**Adenoma Detection Rates**
- Benchmark: 45%
- 2018: 52%

**Adequate scores, BPPS>6**
- Benchmark: 85.0%
- Q1: 92.7%
- Q2: 92.3%
- Q3: 91.3%
Endoscopist report card

• 6 Endoscopists
• Quarterly report card on quality measures starting 2009
• Compared ADR and cecal intubation rate before and after intervention

<table>
<thead>
<tr>
<th></th>
<th>Before (95%CI)</th>
<th>After (95% CI)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>44.7% (39.1%-50.4%)</td>
<td>53.9% (49.7%-58.1%)</td>
<td>0.013</td>
</tr>
<tr>
<td>Cecal intubation</td>
<td>95.6% (92.5%-97.5%)</td>
<td>98.1% (96.7%-99.0%)</td>
<td>0.027</td>
</tr>
</tbody>
</table>

Step 2. Improve Prep

• Use split dose or same day prep
• Begin second dose 4-6 hours prior to colonoscopy
  – Finish prep at least 2 hours prior to colonoscopy
• Judge prep after all washing has been done
• Adequate prep should be achieved in at least 85% of cases
• If inadequate prep, repeat within 1 year
Step 3. Know what to look for and resect completely!
Polyp Recognition

- Endoscopic Features of easily missed polyps:
  - Right sided
  - Flat/sessile
  - Irregular borders
  - Covered by mucus

Huang CS et al. AJG 2011;106:229-40
Complete Resection is imperative!

Shaukat A et al. Gastrointest Endosc. 2020;92(5):997-1015
Step 4. Think of interventions in the following categories:

- Technique
- Technology
- Education
Technique: Withdrawal time

• Withdrawal time:
  • Should be at least 6 minutes in colonoscopies without biopsy or polypectomy

• Withdrawal technique:
  • Adequate distention
  • Washing and clean up
  • Looking behind folds
  • Segmental inspection and subjective timing

ASGE practice guideline: Measuring the Quality of Endoscopy. Gastrointest Endosc 2006;58:S1-S38
Rex DK. Colonoscopic Withdrawal technique is associated with adenoma miss rate. Gastrointest Endosc 2000;51:33-6
WT and Interval cancer

Physicians’ average annual withdrawal times were inversely associated with interval cancers (p < 0.0001)

Time alone isn’t enough: Technique matters

Lowest vs Highest ADR Endoscopist

- Withdrawal Time (min): Lowest = 6.6, Highest = 7.4
- Technique Score: Lowest = 36.2, Highest = 62.8

p = .0001\textsuperscript{d}

p = .32\textsuperscript{d}
Intervention: Train the Leader

• 40 Polish endoscopy centers with ADR <25% for the leader
• Randomized to
  • Feedback only (individual report cards)
  • Training: assessment, hands on training, post training feedback
• 24,582 colonoscopies by 38 leaders

<table>
<thead>
<tr>
<th>ADRs</th>
<th>Pre-intervention</th>
<th>Early post-intervention (6 mo)</th>
<th>Later post intervention (12 mo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback only</td>
<td>18.5%</td>
<td>19.6%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Train the leader</td>
<td>17.4%</td>
<td><strong>25.6%</strong></td>
<td>23.9%</td>
</tr>
</tbody>
</table>

Accessory Devices

ASGE. Endoscopes and devices to improve colon polyp detection. GIE 2015;81:1122-29
Emerging Technologies: AI for GI

- Polyp detection
- Histology prediction
- Prep quality
- Mucosa exposed/seen
- Adequate retroflexion
Multifaceted interventions are needed

Summary

• ADR is a valid quality metric that should be tracked and can be improved
• Good technique is essential
  • Careful segmental inspection
  • Look behind folds
  • Segmental and timed withdrawal
  • Look for flat lesions
  • Water exchange
• Technology can help but is no substitute
• Educational programs can help but effort and cost involved
Tools to improve ADRs

**Effort**
- Longer timed withdrawal
- Water exchange
- Videorecording
- Report cards
- Changing patient position
- 2nd look in the right Colon
- Retroflexing in the cecum
- Eye exams

**Cost $$$**
- Educational Courses
- Financial incentives or penalties
- Endoscopes and devices
- Proctoring
- AI
- Educational videos
- Publish ADRs
- Continuous feedback
- Discussions with low performers
- RN or tech looking at the screen
Thank you!

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