Quality of Care in IBD: Where Have We been and Where are We Going?

Shane Devlin
IBD clinic
The University of Calgary
# Disclosures

<table>
<thead>
<tr>
<th>Company</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Janssen</td>
<td>Advisory Board Speaker</td>
</tr>
<tr>
<td>Takeda</td>
<td>Advisory Board</td>
</tr>
<tr>
<td>Abbvie</td>
<td>Advisory Board Speaker</td>
</tr>
<tr>
<td>Shire</td>
<td>Advisory Board Speaker</td>
</tr>
</tbody>
</table>
Other important disclosures:

1. I have patients on steroids
2. I have patients who are on monotherapy who probably should be on combination therapy
3. Not all my patients have been vaccinated
4. A lot of my patients smoke!

In other words....I also practice within the constructs of reality
CanMEDS Roles Covered in this Session:

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td><strong>Medical Expert</strong> (as Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.)</td>
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<tr>
<td><strong>Communicator</strong> (as Communicators, physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.)</td>
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<tr>
<td><strong>Collaborator</strong> (as Collaborators, physicians effectively work within a healthcare team to achieve optimal patient care.)</td>
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<tr>
<td><strong>Manager</strong> (as Managers, physicians are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.)</td>
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<tr>
<td><strong>Health Advocate</strong> (as Health Advocates, physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.)</td>
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<tr>
<td><strong>Scholar</strong> (as Scholars, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.)</td>
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<tr>
<td><strong>Professional</strong> (as Professionals, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.)</td>
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</table>
Objectives:

1. To explore concepts in Quality of Care in IBD
2. What has been done to date?
3. What’s next?
Where have we and others been?
“The End Result...”

• 1911-1916: reported outcomes on 327 pts, including 123 errors

• “Let us remember that the object of having standards is to raise them”
History of Quality of Care

- Regional variation in care emerged as an early indicator of quality control problems in the US in the 1970’s

variation in care as a marker of “serious and widespread quality problems”

Perrin et al NEJM 1989; 320:1183-1187
Chassin et al JAMA 1998; 280: 1000-1005
Wennberg et al BMJ 202; 325:961-964
Variation Isn’t Always Good
Is There Variation in Care in IBD?
Studying Process Measures in IBD

- Patients coming for a 2\textsuperscript{nd} opinion to Brigham and Women’s Hospital (Boston) 2001-2003
- 67 consecutive patients in the outpatient clinic
- Compared care to published practice guidelines

<table>
<thead>
<tr>
<th>Clinical Parameter</th>
<th>Proportion following guideline (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suboptimal dosing of 5-ASAs</td>
<td>64%</td>
</tr>
<tr>
<td>Treatment with steroids &gt; 3 month</td>
<td>77%</td>
</tr>
<tr>
<td>Failure to utilize steroid sparing agents</td>
<td>59%</td>
</tr>
<tr>
<td>Suboptimal dosing of thiopurines</td>
<td>82%</td>
</tr>
<tr>
<td>Bone density measurement</td>
<td>78%</td>
</tr>
<tr>
<td>CRC surveillance</td>
<td>33%</td>
</tr>
</tbody>
</table>

Variation between “CD Experts” and Community GI’s in the US

Esrailian et al APT 2007; 26:1005-1018
Dysplasia Surveillance

• 2-4 random biopsies every 10cm

• 33 biopsies required to detect dysplasia with a 90% probability

• 64 biopsies required to detect dysplasia with a 95% probability

Itzkowitz et al Gastro 2004; 126:1634-48
Is There Variation in Care in IBD?

How many biopsies are we taking?

- Population based Calgary data
- 45 pts identified from 2000-2004 with PSC and UC/CD
- 2 LGD, 2 DALM, 1 CRC
- Only 36% of expected number of colonoscopies performed
- Mean number of biopsies: 27

Kaplan et al IBD 2007; 13: 1401-07
There Is Variation in Care in IBD
AGA IBD QI Measures
2012 PQRS

1. Document disease activity and severity
2. Recommend steroid-sparing therapy after 60 days
3. Assess bone health if steroid-exposed
4. Recommend influenza vaccine
5. Recommend pneumococcal vaccine
6. Document recommendation for cessation of smoking
7. Assess for HBV status pre-anti-TNF
8. Assess for latent TB pre-anti-TNF

www.gastro.org/practice/quality-initiatives
CCFA Process Measures
“Highlights”

- Test for TB before anti-TNFα therapy
- Test for *C. difficile* in flares
- Flex sig. for CMV in steroid-refractory hospitalized UC
- Check TPMT before starting thiopurines
- Recommend steroid-sparing agents if >4m steroids
- Recommend colectomy or close surveillance for low-grade dysplasia in colitis
- Recommend smoking cessation if smoker with CD
- Educate patients regarding vaccinations

Melmed, et al. Inflamm Bowel Dis
Where are we and others going?
AGA/PQRS and IBD QIs in the US

• 2012-2014, reporting measures to PQRS will get you 0.5% bonus payment
• In 2015, NOT participating = lose 1.5%
• In 2016+, NOT participating = lose 2%
In Canada: Quality and Payment Unrelated
EPIC: Emerging Practice in IBD Collaborative

- Group of Canadian GIs in first 10 years of training
- Waqqas Afif, Brian Bressler, Shane Devlin, Jennifer Jones, Steven Gruchy, Geoffrey Nguyen, Liliana Oleivera, Sophie Plamondon, Cynthia Seow, Chad Williams, Karen Wong, Brian Yan
**EPIC Methodology**

- **Jan 2012**: Comprehensive review of the literature by the EPIC Research Executive Committee (JJ, GK, GN) to identify QIs.

- **Feb 2012**: Discussion and identification of additional QIs by all EPIC members during a face-to-face meeting.

- **April 2012**: Offline ranking process by executive committee and QI Working Group (BB, SD, SG, LO, CW) to prioritize QIs according to a 5-point scale (5 = most important).

- **May 2012**: Review of collated ranked results by executive committee to agree 12 QIs to take forward.

- **June 2012**: Alignment of QIs to individual EPIC members for literature search.

  - Systematic and manual literature searches, including Medline, Cochrane database and congress abstracts*

- **Nov 2012**: For each QI, presentation of available supporting literature to EPIC colleagues and agreement of statement wording.

*EPIC Methodology includes systematic and manual literature searches, including Medline, Cochrane database and congress abstracts.
EPIC: Proposed Canadian QIs

1. DVT prophylaxis for inpatients
2. C.diff testing during a flare
3. Smoking cessation
4. Quality endoscopy reporting at diagnosis of IBD (diagnosis (UC vs CD), disease location and severity.
5. Recommending steroid sparing therapy for those that are steroid dependent
6. Test for TB and HBV
7. In acute, severe UC, don’t delay onset of salvage therapy beyond 7 days (< 7 days in certain circumstances).
8. All IBD patients with risk factors for metabolic bone disease, including prolonged steroid use, should be assessed for bone loss and treated if indicated.
9. Dysplasia surveillance in UC, CD and PSC
10. Perform objective measure for recurrent disease 6-12 months post resective surgery in CD.
11. Administer pneumococcal and influenza vaccination, especially if on IS therapy.
12. There should be objective measurement of response to medical therapy for IBD patients on maintenance therapy.
BRIDGe Group: Quality IBD Endoscopy Reporting

• Elements That Should be Included in a Quality Endoscopy Report for Inflammatory Bowel Disease Patients: Recommendations from a BRIDGe Group RAND-Appropriateness Panel

• ECCO 2014, DDW 2014

Endoscopy reports reporting, “colitis was found in the colon” can never be acceptable
BRIDGe Group: Quality IBD Endoscopy Reporting

• 50 potential reporting elements across themes including:
  – Disease background
  – Findings and interventions
  – CD with ileo-colonic anastomosis
  – pouchoscopy
CAG

• Consensus conference on management of UC
  – June 2014

• *A need for CAG to guide QIs in Canada*
Variation between “CD Experts” and Community GI’s in the US

<table>
<thead>
<tr>
<th>Condition</th>
<th>CD experts</th>
<th>Novice GI's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newly diagnosed CD</td>
<td>44</td>
<td>75</td>
</tr>
<tr>
<td>Perianal CD</td>
<td>13</td>
<td>78</td>
</tr>
<tr>
<td>Steroid refractory CD</td>
<td>17</td>
<td>54</td>
</tr>
<tr>
<td>Post-operative fibrostenotic CD</td>
<td>39</td>
<td>60</td>
</tr>
</tbody>
</table>

Esrailian et al APT 2007; 26:1005-1018
## Why is there a difference?

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experts (N=55)</th>
<th>Community GI (N=131)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs)</td>
<td>46.5 +/- 9.7</td>
<td>50.3 +/- 9.6</td>
<td>0.02</td>
</tr>
<tr>
<td>Male (%)</td>
<td>89</td>
<td>91</td>
<td>0.7</td>
</tr>
<tr>
<td>Clinical time (%)</td>
<td>57 +/- 25</td>
<td>83 +/- 30</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Clin res (%)</td>
<td>24 +/- 16</td>
<td>6 +/- 19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Basic res (%)</td>
<td>58 +/- 1</td>
<td>1 +/- 10</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>No IBD pts/mo</td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>None</td>
<td>9</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>38</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>25</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td>16</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>&gt;20</td>
<td>12</td>
<td>96</td>
<td></td>
</tr>
</tbody>
</table>
How can we measure quality?

Donabedian Framework

- **Process Measures** – evidence-based practice
- **Structural Measures** – setting in which the care is delivered (clinic, endo, MD’s, nurses...)
- **Outcome Measures** – what happens to patients as a result of the care they receive

Donabedian, A. QRB Qual Rev Bull 1992;18
How can we measure quality?

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Donabedian, A. QRB Qual Rev Bull 1992;18
The Chronic Care Model: How Do we Relate this to IBD Care?

1. Community Resources and Policies
2. Health System Organization of Health Care
3. Self-Management Support
4. Delivery System Design
5. Decision Support
6. Clinical Information Systems

Informed, activated patient
Productive Interactions
Prepared, Proactive Practice Team

Adapted from: Wagner et al Health Aff (Milwood) 2001; 20:64-78
Most Common Delivery System Design

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"The doctor will see you once you’ve waited long enough to know who’s boss."

Management Plan

Who is this guy again and What are his issues?!?
Where Can This System Fail?

And Does
Where Can This System Fail?

- Disorganized clinics
- Busy clinician with overbooked clinic
- Poor charting technique
- Messy paper charts
- Arranging follow-up
A Better Delivery System Design

Wow! I’m on time, I can’t believe it!

Management Plan

Appropriate and Predictable Follow up

Standard lab intervals, routine f/u calls, assessment of adherence to biologic schedules, ensuring MD f/u’s

EMR

Vaccines
Bone health
Labs
Colon cancer surveillance
### Patient Summary:

**Shane Devlin**  
Jan-20-1972  
PHN: 123456789

### Signed

<table>
<thead>
<tr>
<th>Date</th>
<th>Provider</th>
<th>Concern</th>
<th>Diagnosis</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>06Dec13</td>
<td>Devlin, Shane</td>
<td></td>
<td>IBD</td>
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Export options: Excel | PDF | RTF
Variation in Care in Canada
Regional Health Authorities: An Eye to Quality

Alberta Quality Matrix for Health

<table>
<thead>
<tr>
<th>Dimensions of Quality</th>
<th>Acceptability</th>
<th>Accessibility</th>
<th>Appropriateness</th>
<th>Effectiveness</th>
<th>Efficiency</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Areas of Need</strong></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Being Healthy</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Getting Better</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living with Illness or Disability</td>
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<td></td>
</tr>
<tr>
<td>End of Life</td>
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</tbody>
</table>

- **Acceptability**: Health services are respectful and responsive to user needs, preferences, and expectations.
- **Accessibility**: Health services are obtained in the most suitable setting in a reasonable time and distance.
- **Appropriateness**: Health services are relevant to user needs and are based on accepted or evidence-based practice.
- **Effectiveness**: Health services are provided based on scientific knowledge to achieve desired outcomes.
- **Efficiency**: Resources are optimally used in achieving desired outcomes.
- **Safety**: Mitigate risks to avoid unintended or harmful results.

- **Being Healthy**: Achieving health and preventing occurrence of injuries, illnesses, chronic conditions and resulting disabilities.
- **Getting Better**: Care related to acute illness or injury.
- **Living with Illness or Disability**: Care and support related to chronic or recurrent illness or disability.
- **End of Life**: Care and support that aims to relieve suffering and improve quality of living with or dying from advanced illness or bereavement.
IBD Quality....There’s an App for That

Instant Recommendations
for IBD Quality™

Get Recommendations

Recognition & Rewards

Become an AGA Member
IBD Quality....There’s an App for That

Questions

Check all that apply for the patient:

1. The patient's IBD type, anatomic location, and disease activity (severity) has been assessed within the past year.

2. The patient has been on corticosteroids >=10mg prednisone (or equivalent) for 60 or more days within the past year.
IBD Quality....There’s an App for That

6. This patient's tobacco use status has not been assessed within the past year.

- The patient's tobacco use status should be assessed at least once per year. View the Evidence

- If the patient is a tobacco user, tobacco cessation therapy should be provided at least once per year. View the Evidence
Conclusions:

1. High quality, consistent standards of care are important to our patients
2. It will remain a challenge to determine what the minimal acceptable standard of care is but this does not mean that we should not move forward
3. Defining QIs and their attendant outcome measures remains a challenge
4. Structural measures (modes of care delivery) remain a largely neglected area where we can improve quality of care