Why do we need to care about quality?

1. To offer a uniform high level of care to all patients
2. Reimbursement will depend not only upon what care is delivered, but the quality of care provided
Donabedian Quality Model

Structure of Care
- Medical records system characteristics
- Staffing characteristics
- Diagnostic / therapeutic resources

Process of Care
- Diagnostic processes
- Preventive care processes
- Disease-management processes

Outcomes of Care
- “Hard” clinical outcomes
- Patient reported outcomes (PROs)
- Resource utilization outcomes

Definition of Quality of Care

- 1990 – Institute of Medicine (IOM)
  The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with professional knowledge
Better Definition?

“Quality of care” is a mechanism to ensure that the best new research and ideas do not get left behind in journals, but get applied in a cost-effective manner equally to all patients.

Process Matters! Examples in IBD

1. 37 year old woman with ulcerative colitis, receives about 6 courses of prednisone per year
   – never offered steroid sparing therapy (or DEXA)  
   Underuse

2. 41 year old woman with history of colonic Crohn’s disease, persistent symptoms of diarrhea despite trying max dose of all three anti-TNFs
   – colonoscopy with normal biopsies
   Overuse

3. 28 year old man with Crohn’s disease, undergoing ileocolonic resection for active inflammatory disease
   – receiving azathioprine at 1mg/kg
   Misuse
Variation in Care

- Dartmouth Atlas
- How much is spent on testing?
- Variations in resource utilization
- Based on medicare data
- Adjusted for age, gender, comorbidities

Insufficient Adherence to Guidelines in 2005

- Patients coming for a 2nd opinion to Brigham and Women’s Hospital 2001-2003
- 67 consecutive patients in the outpatient clinic
- Comparison of 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 in Colectomy Rate for UC**  
**Race and Geography**

![Graph showing variation in colectomy rate for UC by race and geography from 1998 to 2003.](Nguyen, et al. CGH 2006;4:1507)

**How have other fields of medicine approached quality improvement?**

- **Cystic Fibrosis**
- 115 Centers accredited by the CF foundation
- Steps in their quality improvement process

1. **Define clinical microsystem**
   - Patients
   - Providers
   - Parents
   - Dieticians
   - Social workers

2. **Establish Quality Indicators**
   - Body mass index
   - Force vital capacity
   - Mortality

3. **Data Transparency**
   - All results online
   - Good and bad

**Continually gaining 1.1 years of predicted survival!**
Variation in Pediatric IBD Care

- 10 Centers in the Pediatric IBD Registry (US and Canada)
- Evaluated medication use within the first 3 months of dx

Kappelman, et al. IBD 2007;13:890
Improve Care Now

- Specific interventions to support large-scale improvement across multiple pediatric IBD care centers
  - Protocols; Pre-Visit Planning; Auditing; Model for Improvement; Self Management
- Began with 7 centers, now expanded to 27
- 3000 patients, 15,000+ visits to date

Why do we need quality “measures” and “indicators”?

Also from The Checklist Manifesto

“The average time it takes doctors to adopt new treatments is 17 years”

“…the delay is not usually laziness or unwillingness…more often that the necessary knowledge has not been translated into a simple, usable and systematic format.”
Example “If, Then, Because” QI

If a patient with IBD is hospitalized with increased stool frequency then *C. difficile* testing should be because *C. difficile* infection increases the risk of adverse outcomes of hospitalized IBD patients.

Examples of Quality Improvement Efforts in IBD

- PIDBNet Trailblazer Collaborative (Improve Care Now)
  - Improvement in process measures such as monitoring of growth and nutritional status
- IBD Standards Group (UK)
  - Ensuring that patients receive proper disease information and support
- ECCO guidelines
  - Consensus statements (evidence based) regarding patient management

IBD Standards Group 2009
ECCO, Journal of Crohn's and Colitis 2008
ECCO, Gut 2006.
IBD Measures for NQF approval

1. Documented assessment of type, location and activity (annual)
2. Steroid Sparing Therapy
3. Preventive Care – Bone Loss
4. Preventive Care – Vaccinations
5. Smoking Cessation
6. TB/Hep B testing prior to anti-TNF Therapy
7. C. diff testing when hospitalized
8. Prophylaxis for Thromboembolism

CCFA Process Measures Set

Check TB/Hep B status prior to starting anti-TNF
Education on vaccinations
Steroid sparing therapy
TPMT prior to thiopurine
Smoking cessation

Melmed Inflamm Bowel Dis 2013;
GI BUDDY APP to track symptoms and treatments

How Can “Comparative Effectiveness Research” Help Improve Quality?

- CER compares benefits and harms of alternative methods of care
- These are NOT placebo controlled trials
- Direct comparison of interventions in patients who are typical of day-to-day clinical care
- Practical answers to practical clinical questions
- Measure patient centered outcomes, not p-values
- 1.1 Billion invested for CER in the stimulus bill

Summary

• Quality improvement for IBD has arrived and is growing
• A few different approaches, all going after the same goal
• Embrace the process → it will help us all provide better care for our patients

“You might think I’m making a lot of money, but you have to understand my expenses. Twenty percent to a manager, ten percent to an agent, thirty percent to travel, and .000000005 percent to develop new material.”