Why do we need to think about quality of care for 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
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

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

• 2001 – IOM’s Crossing the Quality Chasm
  – STEEEP: Safe, Timely, Effective, Efficient, Equitable, Patient Centered Care
My 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 equally to all patients.

Quality as Defined by Variation in Care

- Wennberg & Chassin
  - Unwarranted variation in care is often evidence of “serious and widespread quality problems”
- Kappelman, et al. IBD Journal 2009
  - “variation [in care] suggests a clear need for translating evidence-based practices into the actual practice and follow-up provided for patients.”
“Identifying variation in care is an initial step in quality improvement”

Kappelman et al. IBD 2007;13:890
Berwick DM, National Coalition on Health Care;1988
Institute of Medicine, Crossing the Quality Chasm: A new health system for the 21st century; 2001

Variation in Care

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

[Graph showing variation in care across different regions]
Dartmouth Atlas
Variation in Expenditure per Enrollee

What would this look like for IBD care?
What would we measure?

www.DartmouthAtlas.org

How can we measure quality?
Donabedian Framework

- **Process Measures** – evidence-based practice
- **Structural Measures** – setting in which the care is delivered (e.g., who, where, electronic medical record)
- **Outcome Measures** – what happens to patients as a result of the care they receive

Studying Process Measures in IBD

- Patients coming for a 2nd 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 in Pediatric IBD Process of 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
Variation in Colectomy Rate for UC
Race and Geography

Nguyen, et al. CGH 2006;4:1507

How have other fields of medicine approached “structure” and “outcome”?  
- Cystic Fibrosis  
- 115 Centers accredited by the CF foundation  
- Steps in their quality improvement process

Define clinical microsystem  
- Patients  
- Providers  
- Parents  
- Dieticians  
- Social workers

Establish Quality Indicators  
- Body mass index  
- Force vital capacity  
- Mortality

Data Transparency  
- All results online  
- Good and bad

Continual Improvement Process  
Annually gaining 1.1 years of predicted survival!
How have other fields of medicine approached “structure” and “outcome”?  

- Northern New England Cardiovascular Disease Study Group (NNECDSG)  
- Capture ALL cardiovascular procedures in Maine, New Hampshire and Vermont  
- 3 meetings per year to share clinical outcomes and process measures  
- Feedback on outcomes to individual surgeons  
- Training sessions on quality improvement  
- Site visits to most “successful” centers  

24% reduction in CABG mortality over a 2 year period!

This may be harder to measure in IBD  

- Heterogeneity of disease  
- Availability of resources  
- What outcomes do we measure?  
  - Response, remission  
  - Steroid sparing  
  - Growth  
  - Quality of life  
  - Surgical rates, death
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.

How are quality improvement data reported?

• Forget p < 0.05
• Enter…
  – XmR chart
  – P chart
  – G, U & C charts
  – X-bar and R chart
  – ANOM

ANOM: Influenza Vaccination in IBD Patients


54%  83%
Is there a “rulebook” for publishing on quality improvement?

- SQUIRE (Standards for QUality Improvement Reporting Excellence)
- Published in Quality & Safety in Health Care, October 2008
- Checklist (similar to CONSORT, MOOSE, etc.)
- Consult when planning a project

How Can “Comparative Effectiveness Research” Help Improve Quality?

- Comparing the 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
Current US Efforts in IBD Quality

- AGA
  - Developing quality indicators for Centers for Medicare and Medicaid Services (CMS)
- Pediatric IBD
  - Improve Care Now, Cincinnati Children’s
- CCFA
  - Quality of Care Committee
  - Developing quality indicators for guidance on good “quality IBD care”

CCFA Quality of Care Committee Mission Statement

1. Define the standards of care for IBD (quality indicators)
2. Identify the processes that will improve patient-centered outcomes
3. Assess the impact of these processes on the quality of care
4. Educating caregivers and patients on the implementation of these processes
5. Conducting continuous evaluation and refinement of the standards of care through this effort.
Next Steps at the CCFA

- Develop candidate quality indicators
- Evidence base review over next 6 months
- May (DDW) 2nd committee meeting to finalize list of quality indicators for IBD
- Setting up the framework
  - Process → Measuring variation and implementing change
  - Structure → Should our goal to be a “CF-like” collaborative?
  - Outcome → Are we making a difference in patients’ quality of life?

Summary

- Quality improvement is here to stay
- We can look to others for guidance
- Efforts in IBD in the works nationally and internationally
- Embrace the process → it will help us all provide better care for our patients