Quality of Care in IBD in 2013

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Disclosures

Consulting/Advisory Board/Research Work and Support

- Pfizer
- Janssen
- CDx
- AbbVie
- Genentech
Quality of Care in IBD

- What is Quality of Care?
- Is there variation in IBD care?
- Review of ongoing quality efforts in IBD

Key Goals of Quality in IBD 2013 and beyond

- To offer a uniform high level of care to all patients: raising the floor

- Reimbursement starting to depend not only upon what care is delivered, but the quality of care provided: shared risk/population management
Why do we need to think about quality of care for IBD? Process Matters!

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**
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 → Establish Quality Indicators → Data Transparency

- Patients
- Providers
- Parents
- Dieticians
- Social workers
- Body mass index
- Force vital capacity
- Mortality
- All results online
- Good and bad

Continual Improvement Process

Annually gaining 1.1 years of predicted survival!

Model for Improvement

What are we trying to accomplish?
How will we know that a change is an improvement?
What change can we make that will result in improvement?

Act
Plan
Study
Do
Is There Variation in Care Delivery?

Insufficient Adherence to Guidelines in 2005

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 Immunodulator Use**

Immunomodulator Use By Center

Proportion of Patients

Center 3 (n=28)  Center 8 (n=26)  Center 1 (n=34)  Center 6 (n=35)  Center 7 (n=28)  Center 10 (n=20)  Center 4 (n=24)  Center 9 (n=33)  Center 5 (n=33)

P < 0.001

Kappelman, et al. IBD 2007;13:890

**Variation in Colectomy Rate for UC**

Race and Geography

Nguyen, et al. CGH 2006;4:1507
Accountability (think PQRI) versus improvement (think CFF)

<table>
<thead>
<tr>
<th></th>
<th>Accountability</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong evidence base</td>
<td>+++</td>
<td>+</td>
</tr>
<tr>
<td>Sensitivity to change</td>
<td>+/-</td>
<td>+++</td>
</tr>
<tr>
<td>Ceiling effects</td>
<td>+/-</td>
<td>+++</td>
</tr>
<tr>
<td>Risk adjustment possible</td>
<td>+++</td>
<td>+/-</td>
</tr>
<tr>
<td>Achievable for all patients</td>
<td>+ + +</td>
<td>+/-</td>
</tr>
<tr>
<td>Well-defined (what and when)</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Easy to measure</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Frequency of occurrence</td>
<td>+</td>
<td>+++</td>
</tr>
</tbody>
</table>

Take home message: Accountability and Improvement need different measures with different properties

We need to continue to be physicians, not box-checkers

“The modern world’s tech-giddy control and facilitation makes us stupid. Awareness atrophies. Dumb gets dumber. Lists are everywhere . . . . We demand shortcuts, as if there are shortcuts to genuine experience. These lists are meaningless.”

A Handful of Quality Programs in U.S. IBD Care

### ImproveCareNow Measures

<table>
<thead>
<tr>
<th><strong>Outcome Measures</strong></th>
<th><strong>Process Measures</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Remission*</td>
<td>Visit in last 6 months</td>
</tr>
<tr>
<td>Steroid-free remission*</td>
<td>TMPT prior to TP</td>
</tr>
<tr>
<td>Sustained remission*</td>
<td>TP dose per wt-based guideline</td>
</tr>
<tr>
<td>Off prednisone</td>
<td>TP levels checked per wt-based guideline</td>
</tr>
<tr>
<td>Satisfactory nutrition*</td>
<td>PPD prior to inflx</td>
</tr>
<tr>
<td>Satisfactory growth*</td>
<td>Inflx dose per wt-based guideline</td>
</tr>
<tr>
<td></td>
<td>Inflx levels per guideline</td>
</tr>
<tr>
<td></td>
<td>MTX dose per wt-based guideline</td>
</tr>
</tbody>
</table>

- * Remission currently by PGA, efforts to standardize assessment, back-up with disease activity indices
- Disease activity indices require substantial amounts of data
- * Nutrition growth currently by provider assessment, moving towards growth velocity and BMI Z scores
- Anthopometrics not as promising as expected, due to ceiling effects
1. Complete diagnostic and initial evaluation (100%, 90%, n=1)

2. Disease phenotype and extent of disease are documented (100%, 90%, n=29)

3. Disease severity is documented (100%, 90%, n=29)

4. Height, weight and BMI are plotted (96%, 90%, n=25)

5. Satisfactory nutritional status (97%, 89%, n=89)

6. Nutritional status is classified (100%, 90%, n=29)

11. Satisfactory growth status (99%, 88%, n=89)

12. Growth status is classified (100%, 90%, n=29)

17. Appropriate doses of Sulfasalazine and/or Mesalamine (83%, 85%, n=6)

18. Started on a 6MP or azathioprine . . . pre-tested for TPMT level (100%, 90%, n=3)

**Disease activity of patient population**

- **Inactive**
- **Mild or moderate**
- **Severe**
Inflammatory Bowel Disease Measures

- IBD 1: Patients Managed With Corticosteroid Therapy
- IBD 2: Pharmacologic Management; Corticosteroid-Sparing Therapies
- IBD 3: Influenza Vaccination in Immunosuppressive Therapy
- IBD 4: Tuberculosis Screening in Immunosuppressive Therapy
- IBD 5: Hepatitis B Risk Assessment in Immunosuppressive Therapy
- IBD 6: Hepatitis C Risk Assessment in Immunosuppressive Therapy
- IBD 7: Varicella/HZV Vaccination in Immunosuppressive Therapy
- IBD 8: Live Vaccine Avoidance Counseling in Immunosuppressive Therapy
- IBD 9: Assessment of Bone Loss Risk Due to Corticosteroid Therapy
- IBD 10: Medication-Related Adverse Events in IBD
- IBD 11: Tobacco Status Assessment and Cessation Counseling
- IBD 12: Colon Cancer Surveillance in Patients with IBD

BRIDGES TO EXCELLENCE

- Founded in 2002, by non-profit HCI3
- Demonstrates quality to the 3Ps:
  - Purchasers
  - Payers
  - Patients
- Commercial and Government plans recognition across the US
- Feeds data to vitals.com
CCFA Process Measure Set

1. Prior to starting anti-TNF
   - Check TB status
   - Check Hepatitis B status
2. If no improvement in 3 days on IV steroids, perform sigmoidoscopy to check for CMV and ask surgeon to see
3. If on prednisone 10 mg/d for >16 weeks, initiate steroid sparing therapy
4. If a patient has a flare of IBD with new or worsening diarrhea, check C. difficile
5. Prior to starting thiopurine, check TPMT status
6. Colonoscopy dysplasia surveillance should begin after 8 years and be performed every 1-3 years for patients with >1/3 of colon involved
7. If a patient has confirmed LGD outside a polyp, TPC or repeat surveillance in 6 months should be recommended
8. IBD patients on immunosuppressive should be educated about
   1. Annual annual influenza vaccination
   2. Pneumococcal vaccination with every 5 year booster
   3. Avoidance of live vaccines
9. Patients with Crohn’s who are active smokers should be educated to stop smoking annually

Melmed, IBD, 2013

CCFA Outcome Measure Set

Steroid Use
- Proportion of patients with steroid-free clinical remission for > 12 month period
- Proportion of patients currently taking prednisone (excluding those diagnosed within the last 112 days)

Number of days per month/year lost from school/work attributable to IBD
Number of days per year in the hospital attributable to IBD
Number of emergency room visits per year for IBD
Proportion of patients with malnutrition
Proportion of patients with anemia
Proportion of patients with normal disease-targeted health-related quality of life
Proportion of patients currently taking narcotic analgesics
Proportion of patients with nighttime BM’s or leakage
Proportion of patients with incontinence in the last month

*All measures had median ratings of 8 or higher on a 1 through 9 rating scale.

Melmed, IBD, 2013
CCFA Adaptation of ICN: Pilot Ramping Up

- Percent patients in remission (PGA)
- Percent Patients in steroid-free remission
- Percent patients prednisone-free
- Percent patients with satisfactory nutritional status
- Percent patients with complete bundles (phenotype, extent, severity, BMI, diagnosis)
- Percent patients with visit within last 200 days
- Percent anti-TNF starts with TB test in prior 12 months
- Percent patients on IFX with IFX dose >4.5 mg/kg
- Percent of patients on MTX with dose of 15 mg/wk or >10 mg/m2

- 3 Private Practice and 3 Academic Sites
- GOOD LUCK Gil and Corey!!

Patient Directed Quality?
GI BUDDY APP to track symptoms and treatments

Welcome. Start logging.
Select a date
Monday, January 31, 2012
Select a category
Symptoms
Treatment
Diet
Lifestyle

Add Symptom
Type
Bowel Movement (BM)
Consistency
Soft but formed
Urgency
Hurry
Blood or Mucus
None
Wake Me From Sleep
No
Notes
Use this space if you’d like to add details

How I Feel
QOL
Symptoms

Checklist Of Care
11 of 13 completed

Hospital + ER Visits
Have you recently experienced?

Emergency Room
Hospitalization

Annual Resource Utilization

IBDPROMISE will allow real time patient reported outcomes to be sent to physicians for quality improvement and to recognition programs for incentives.
Hawthorne Works – Early 1900’s
Thanks to those who helped me put this together: Gil Melmed, Corey Siegel, John Allen, Ashish Atreja, Michael Kappelman

“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.” Steve Martin

Thank you, Lloyd. The Giants will win again.
Thanks for listening!