Pediatric IBD Initial Measures Set
January 2013

1. Inflammatory Bowel Disease (IBD): Type, Anatomic Location and Activity Documented

Measure: Percentage of patients with a diagnosis of inflammatory bowel disease who were assessed for disease type, anatomic location and activity, at least once during the reporting year.

Numerator: Patients with documentation of:

a. Type of inflammatory bowel disease (Crohn’s, ulcerative colitis or IBD-unclassified).

b. Anatomic location of disease based on current or historic endoscopic and/or radiologic data.

c. Luminal disease activity (quiescent, mild, moderate, severe).

Denominator: All patients with a diagnosis of inflammatory bowel disease.

Denominator Exclusions: Documentation of patient reason(s) for not performing assessments (e.g., patient refuses endoscopic and/or radiologic assessment).

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

The management plan for a patient with Crohn's disease should take into account the activity, site and behaviour of disease, and should always be discussed with the patient.


Oral 5-ASA regimens are recommended as first-line induction therapy for mild to moderately active pediatric UC.

(Turner D, Levine, A et al Management of Pediatric Ulcerative Colitis: Joint ECCO and ESPGHAN Evidence-based Consensus Guidelines, JPGN Volume 55, Number 3, September 2012.)

Oral steroids are recommended in moderate disease with systemic symptoms and selected children with severe disease without systemic symptoms" (Turner D, Levine, A et al Management of Pediatric Ulcerative Colitis: Joint ECCO and ESPGHAN Evidence-based Consensus Guidelines, JPGN Volume 55, Number 3, September 2012.)

The Pediatric Ulcerative Colitis Activity Index (PUCAI) is a validated score of clinical disease activity that does not include endoscopy or laboratory markers and is easy to perform on a daily basis.

(Turner D, Levine, A et al Management of Pediatric Ulcerative Colitis: Joint ECCO and ESPGHAN Evidence-based Consensus Guidelines, JPGN Volume 55, Number 3, September 2012.)

1. It is recommended that clinicians use a physician global assessment (PGA) to determine disease severity for pediatric CD or UC (Local Consensus [E]).

Note 1: The physician global assessment (PGA) includes four categories: quiescent, mild, moderate and severe disease activity. See Appendix 1A, CCHMC IBD Physician Follow-up visit form (Local Consensus [E]).

Note 2: Other helpful clinic forms capturing various IBD assessment components include: Appendix 1B, Appendix 1C, Appendix 1D, Appendix 1E, Appendix 1F (Local Consensus [E]).

Note 3: CD patients with mild disease as indicated by history and physical, but who have significant growth failure are placed in the moderate disease severity category (Local Consensus [E]).

2. It is recommended that clinicians consider using the Pediatric Crohn’s Disease Activity Index (PCDAI) as another measure of disease severity in making CD treatment decisions (Otley 1999 [O], Hyams 1991 [O]).
(IBD Guideline Team, Cincinnati Children's Hospital Medical Center: Evidence-based care guideline for Management of Pediatric Moderate/Severe Inflammatory Bowel Disease (IBD), http://www.cincinnatichildrens.org/svc/alpha/h/health-policy/ev-based/ibd.htm Guideline 29, pages 1-29, April 5, 2007.)

**Rationale for the Measure**

Therapeutic options are determined by an assessment of the disease location, and severity. In the absence of a "gold standard" for the measurement of disease activity, severity is established on clinical parameters, systemic manifestations, and the global impact of the disease on the individual's quality of life (44,78,79). (Lichtenstein, GR et al. Management of Crohn's Disease in Adults. Am J Gastro. 2009.)
2. IBD Preventive Care: Influenza Immunization

**Measure:** Percentage of patients with inflammatory bowel disease for whom influenza immunization was recommended, administered or previously received during the reporting year.

**Numerator:** Patients for whom influenza immunization was recommended, administered or previously received.

**Denominator:** All patients with a diagnosis of inflammatory bowel disease.

**Denominator exclusions:**
- Documentation of medical reason(s) for not recommending, administering or having previously received influenza immunization (e.g., patient allergic reaction, potential adverse drug reaction).
- Documentation of patient reason(s) for not recommending, administering or having previously received influenza immunization (e.g., patient refusal).
- Documentation of system reason(s) for not recommending, administering or having previously received influenza immunization (e.g., vaccine not available).

The following clinical recommendation statements are from the referenced clinical guidelines and represent the evidence base for the measure:

It is recommended that immunizations be given in accordance with the American Academy of Pediatrics and American Academy of Family Physicians recommendations (Sands 2004 [S,E]). See Appendix 3. Note 1: Live virus vaccines are contraindicated in patients receiving prednisone and/or any of the following (6-MP, AZA, MTX, infliximab) for treatment of IBD.

Note: To the extent that children with IBD have some degree of immunosuppression, the severity of infection with vaccine-preventable diseases may be increased.

(IBD Guideline Team, Cincinnati Children’s Hospital Medical Center: Evidence-based care guideline for Management of Pediatric Moderate/Severe Inflammatory Bowel Disease (IBD), http://www.cincinnatichildrens.org/svc/alpha/h/health-policy/ev-based/ibd.htm Guideline 29, pages 1-29, April 5, 2007.)

Vaccination to prevent influenza is particularly important for the following persons, who are at increased risk for severe complications from influenza, or at higher risk for influenza-related outpatient, ED, or hospital visits:
- all children aged 6 months–4 years (59 months);
- all persons aged ≥50 years;
- children and adolescents (aged 6 months–18 years) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reye syndrome after influenza virus infection;
- women who will be pregnant during the influenza season;
- adults and children who have chronic pulmonary (including asthma) or cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic, or metabolic disorders (including diabetes mellitus);
- adults and children who have immunosuppression (including immunosuppression caused by medications or by HIV); and
- residents of nursing homes and other long-term-care facilities.

(Prevention & Control of Seasonal Influenza with Vaccines - Recommendations of the Advisory Committee on Immunization Practices (ACIP) 2009. MMWR 2009 Jul 24; Early Release: 1-52.)

Routine vaccination status should be reviewed (62). In patients on immunosuppressants, live vaccines are contraindicated, so if these are required they should be administered at the time of UC diagnosis. However, patients on immunosuppressant drugs can and should be vaccinated routinely for influenza and pneumococcal infection, and for

As noted above, patients with IBD would not be considered to be immune compromised in the absence of severe malnutrition or medical immune suppression. High dose prednisone therapy may be considered a contraindication in the use of live-virus vaccines. Most patients with steroid dependent or refractory IBD respond well to other immunosuppressive agents and are weaned effectively off of corticosteroids. However, recent trends in the use of steroid-sparing agents such as azathioprine and 6-mercaptopurine are to use higher, more effective doses, whereas the doses of methotrexate used in IBD are often higher than those used for rheumatoid arthritis, psoriasis, or asthma. Consequently, one may not assume the safety of live vaccines in patients treated with these agents. (Sands BE, Cuffari C, Katz J et al. Guidelines for Immunizations in Patients With Inflammatory Bowel Disease. Inflammatory Bowel Diseases. 10; 5: 677-692.)

**Rationale for the Measure**

Since IBD patients often rely on their gastroenterologist for health-care maintenance, gastroenterologists should screen for routine vaccination. Appropriate vaccinations should be administered to patients with IBD, particularly those likely to receive immunosuppression. Since influenza vaccination is an annual immunization recommended by the AAP and AAFP, and since vaccination to prevent influenza is particularly important for patients with IBD who are likely to be taking or might need immunosuppression, screening for influenza vaccination should be done by the gastroenterologist. (Moscandrew M., Mahadevan U., Kane S. General Health Maintenance in IBD. Inflamm Bowel Dis. 2009;15:1399–1409.)
3. Testing for *Clostridium difficile* — Inpatient Measure

**Measure:** Percentage of hospitalized (for any reason) patients with a diagnosis of inflammatory bowel disease and diarrhea who are tested for *Clostridium difficile*.

**Numerator:** Patients who are tested for *Clostridium difficile*.

**Denominator:** All hospitalized (for any reason) patients with a diagnosis of inflammatory bowel disease and diarrhea.

**Denominator Exclusions:**

Documentation of medical reason(s) for not testing for *Clostridium difficile* (e.g., testing completed within two weeks of admission to hospital or patient had resection of colon).

**The following clinical recommendation statements are from the referenced clinical guidelines and represent the evidence base for the measure:**

Any child presenting with ASC should have stools screened for *C. difficile* toxins A and B and should be treated if found [Pediatric EL4, RG C; Adult EL2b, RG B] (Consensus for Managing Acute Severe Ulcerative Colitis in Children: A Systematic Review and Joint Statement From ECCO, ESPGHAN, and the Porto IBD Working Group of ESPGHAN. Am J Gastroenterol 2011; 106:574–588; doi: 10.1038/ajg.2010.481; published online 11 January 2011)

Primarily, patients who have recently been hospitalized or treated with antibiotics should have stools examined for *Clostridium difficile* (*C. difficile*), although antibiotic-associated diarrhea may be present in the absence of *C. difficile* toxin. (Kornbluth A., Sachar DB. Ulcerative Colitis Practice Guidelines in Adults (Update): American College of Gastroenterology, Practice Parameters for Committee. American Journal of Gastroenterology. 2004;1371-1385)

*C. difficile* colitis is associated with a significant healthcare burden in hospitalised patients with IBD and carries a higher mortality than in patients with *C. difficile* without underlying IBD. (Ananthakrishnan AN, McGinley EL, Binion DG. Excess hospitalization burden associated with *Clostridium difficile* in patients with inflammatory bowel disease. Gut. Feb 2008; 57: 205–210.)

**Rationale for the Measure**

Several studies have demonstrated that *Clostridium difficile* (*C. difficile*) infections in inflammatory bowel disease (IBD) have increased dramatically. The number of patients hospitalized with Crohn’s disease (CD) and ulcerative colitis (UC) who tested positive for *C. difficile* doubled and tripled, respectively, in a seven-year span. The highest risk for infection occurs primarily in UC, less so in patients with Crohn’s small bowel disease. Thus, the focus is on UC and on the subset of CD patients with a predominance of colitis. Sixty-seven percent of the *C. difficile*-affected IBD patients tested positive within the first two days of hospitalization, suggesting that the infection was acquired not as a classic nosocomial infection, but rather in the community. Hence, the majority of these hospitalizations are due to *C. difficile* infection directly, a secondary exacerbation of the underlying IBD or a combination of both. When a UC patient hospitalized for worsening diarrhea tests positive for *C. difficile*, clinicians grapple with whether true *C. difficile*-associated disease (CDAD) exists, whether the infection has been properly treated and when to begin an induction regimen for presumed flare of the underlying chronic colitis. (Rodemann JF, Dubberke ER, Reske KA, Seo D,Stone CD. Incidence of *Clostridium difficile* infection in inflammatory bowel disease. Clin Gastroenterol Hepatol. 2007; 5(3): 339-44.)

In a hospitalized UC patient presenting with diarrhea, one cannot distinguish between causes of diarrhea on clinical grounds alone. And unlike the non-IBD patient, in whom pseudomembranes revealed during colonoscopy can help confirm true CDAD, the IBD patient with CDAD exhibits neither gross nor histological features of *C. difficile* infection. The second pitfall in the IBD-CDAD scenario is delay in the treatment of the underlying chronic colitis. This typically stems from an assumption that CDAD has not been fully treated and a fear of worsening the infection by adding immunosuppression to treat the IBD. It is common to see UC patients treated for *C. difficile* for days or weeks with persistent but not worsening diarrhea, yet no change in the outpatient IBD regimen. This tends to result in a longer hospital stay than necessary. Therefore, in patients without signs or symptoms of severe CDAD, after two to three days of antibiotics, proper management is to start medications to induce remission of the IBD and to overlap this treatment with
4. Tobacco Use: Screening & Cessation Intervention

**Measure:** Percentage of patients aged 13 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

**Numerator:** Patients who were screened for tobacco use* at least once during the one-year measurement period AND who received tobacco cessation counseling intervention** if identified as a tobacco user.

**Denominator:** All patients aged 13 years and older with a diagnosis of inflammatory bowel disease.

**Denominator exclusions:** None

*Includes use of any type of tobacco

** Cessation counseling intervention includes brief counseling (three minutes or less), and/or pharmacotherapy.

*The following clinical recommendation statements are from the referenced clinical guidelines and represent the evidence base for the measure (from adult measure)*

All patients should be encouraged to quit smoking after surgery for Crohn’s disease [EL1b, RG B] (Caprilli R et al. European evidence based consensus on the diagnosis and management of Crohn’s disease: special situations. Gut. 2006;55(Supplement 1):i36-i58.)

The USPSTF strongly recommends that clinicians screen all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products (A Recommendation). (USPSTF, 2003)

All patients should be asked if they use tobacco and should have their tobacco-use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention (Strength of Evidence = A). (U.S. Department of Health & Human Services-Public Health Service, 2008.)


*Rationale for the Measure:*

The NIH* noted that prevention, especially among youth, and cessation are the cornerstones of strategies to reduce tobacco use. A 2006 conference on the topic explored effective population- and community-based interventions to prevent tobacco use in adolescents and young adults, including among diverse populations. They found that:

Never starting to use tobacco is a much better strategy than having to stop. Tobacco use usually begins primarily during adolescence. Almost 25 percent of 12th-graders have smoked in the previous 30 days, and almost all adult daily smokers have tried cigarettes before age 18 years. Research reports suggest a flattening of the past decade’s downward trend in adolescent smoking. Adolescents (13 to 18 years of age) and young adults (18 to 24 years of age) are susceptible to cultural influences, including family, friends, peers, media, community, and tobacco marketing influence. Gender, racial/ethnic background, socioeconomic status, geography, and sexual orientation all influence tobacco use and the effectiveness of strategies to prevent it, which means that many preventive strategies are needed.

(The NIH State-of-the-Science Conference Statement on Tobacco Use: Prevention, Cessation, and Control Volume 23, Number 3June 12–14, 2006)

*National Institutes of Health (NIH) consensus and state-of-the-science statements are prepared by independent panels of health professionals and public representatives on the basis of 1) the results of a systematic literature review prepared under contract with the Agency for Healthcare Research and Quality (AHRQ), 2) presentations by investigators working in areas relevant to the conference questions during a 2-day public session, 3) questions and statements from conference attendees during open discussion periods that are part of the public session, and 4) closed deliberations by the panel during the remainder of the second day and the morning of the third. This statement is an independent report of the panel and is not a policy statement of the NIH or the federal government
There is good evidence that tobacco screening and brief cessation intervention (including counseling and pharmacotherapy) in the primary care setting is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease and stroke.

*Includes use of any type of tobacco

There is an opportunity for improvement. For example, from 1998-2000:

- 43 percent of patients had smoking status documented at least once.
- 61 percent of patients that were documented smokers had their smoking status indicated on more than 50 percent of office visits.
- 12 percent of patients identified as smokers had documentation that advice to quit smoking was given at least once during the year.
5. Growth/nutrition assessment

**Measure:** Percentage of patients aged 18 years or less with a diagnosis of inflammatory bowel disease for whom height, weight and BMI have been assessed and plotted on a growth chart at least once per reporting year.

**Numerator:** Patients for whom height, weight and BMI have been assessed and plotted on a growth chart.

**Denominator:** All patients with a diagnosis of inflammatory bowel disease.

- **Denominator exclusions:** Documentation of medical reason(s) for not assessing growth/nutrition status (e.g., growth complete or if the patient is unable to stand upright)

*The following clinical recommendation statements are from the referenced clinical guidelines and represent the evidence base for the measure:*

The nutritional status and growth of children with UC must be monitored regularly; nutritional support should be provided when required. (Turner D, Levine, A et al Management of Pediatric Ulcerative Colitis: Joint ECCO and ESPGHAN Evidence-based Consensus Guidelines, JPGN; Volume 55, Number 3, September 2012.)

Longitudinal studies of bone mass accrual in healthy children have shown that it is positively related to linear growth (38). A close relation between height z score and BMD is well documented based on cross-sectional studies in young patients with IBD (39–41).

Weight and body mass index (BMI) are measurements routinely performed in clinical settings and are surrogate measures of lean mass. BMI is a measure of weight relative to height, and major constituents of weight are fat and lean body mass. Indeed, many cross-sectional studies have linked higher BMD z scores with higher BMI z scores (10,22,23,40,48,49) and higher weight z scores(41).

Based on the above, until lean mass z scores are widely available for use in children, weight and BMI z scores can be used as surrogate measures of lean mass, and their deficits should prompt physicians to examine bone health and investigate nutritional and inflammatory status.

(Pappa H et al. Skeletal Health of Children and Adolescents With Inflammatory Bowel Disease. JPGN 2011;53: 11–25)

*Rationale for the Measure*

Growth is an important marker of well-being in children with chronic disease.

- Routine assessment of growth (height and weight) and pubertal status (Tanner staging) are required at presentation and every 3 to 6 months throughout the course of the disease. Patients may prefer pubertal self-assessment.
- Growth suppression in IBD may be related more to poor disease control than to corticosteroid use. Nutrition is an integral part of the management of children with IBD, and nutritional status should be assessed at presentation and at follow-up. (Bhupinder SK et al. Guidelines for the Management of Inflammatory Bowel disease in Children in the United Kingdom. JPGN; 50:1 February 2010)
6. IBD Depression Assessment for Adolescents

**Measure:** Percentage of patients aged 12 to 18 years with a diagnosis of inflammatory bowel disease who have been screened for major depressive disorder using a formal pediatric/adolescent depression screening tool during the reporting year.

**Numerator:** Patients screened for major depressive disorder using a formal pediatric/adolescent depression screening tool during the reporting year.

*Examples of depression screening tools include the Patient Health Questionnaire Modified for Teens (PHQ-9 Modified), Children’s Depression Inventory (CDI, age 7-17 years) or Beck Depression Inventory (BDI, age 18 years and older), the MESSAGE acronym and others.

**Denominator:** Patients aged 12 to 18 years with a diagnosis of inflammatory bowel disease

**Denominator exclusions:**

- Documentation of medical reason(s) for not screening for depression (e.g., already diagnosed with mental health disorder, screening not necessary).
- Documentation of patient reason(s) for not screening for depression (e.g. patient refused)
- Documentation of system reason(s) for not screening for depression (e.g., Systems not in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up).

The following clinical recommendation statements are from the referenced clinical guidelines and represent the evidence base for the measure. Where guidelines are limited other sources of evidence and literature are provided:

- The USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up. Go to the [Clinical Considerations](http://www.uspreventiveservicestaskforce.org/uspstf/uspschdepr.htm) section for discussion of benefits and harms.
  
  **Grade:** B recommendation.

- The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening of children (7-11 years of age).
  
  **Grade:** I statement


The AAFP recommends screening of adolescents (12 to 18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up.

(2009) (Grade: B recommendation)

The AAFP concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening of children (7-11 years of age). (2009) (Grade: I statement)


The results of this meta-analytic review indicated that pediatric IBD patients demonstrate elevations in certain psychosocial domains compared to healthy controls and youth with other chronic illnesses. Specifically, youth with IBD were found to have elevated parent-reported internalizing symptoms compared to healthy children. Interestingly, measures of depressive and anxiety symptoms, which relied primarily on youth report of symptoms, did not reveal differences between youth with IBD and either healthy controls or children with other chronic illnesses. However, children with IBD were found to be at higher risk for depressive disorders compared to youth with other chronic illnesses. There
are several possible explanations for these discrepant findings. First, assessments of depressive disorders were obtained from clinical interviews, whereas assessments of depressive symptoms relied on patient report. Patients may have under-reported symptoms or may have attributed certain depressive symptoms (e.g., fatigue, low appetite) to the disease process and not endorsed these as depressive symptoms, whereas clinical interviewers may have included such symptoms as characteristics of a depressive disorder. The discrepancy may also suggest that current measures of internalizing problems are too restricted with respect to the range of emotional issues that can underlie internalizing disorders such as hopelessness, dysthymic mood, feelings of helplessness, and negative disease related or unrelated causal attributions. These findings might also indicate that, although depressive symptoms are not elevated across the IBD population, those patients who develop symptoms of depression are more likely to experience clinically elevated symptoms and increased risk for a major depressive disorder. However, while this hypothesis seems plausible, it requires additional empirical attention since only two studies examined rates of depressive as orders using diagnostic assessments whereas others used symptom severity assessments. (Greenley etal.A Meta-analytic Review of the Psychosocial Adjustment of Youth with Inflammatory Bowel Disease)

The North American Society for Pediatric Gastroenterology, Hepatology and Nutrition IBD Committee has recently made the following recommendations (publication pending):

Regardless of the etiology of anxiety and depression, it is important for the treating physician to recognize warning signs and refer the patient for behavioral treatment as these have been shown to be effective in improving depression, even in the context of active IBD. It is important for the medical team to differentiate short-term distress that may be normal during flares or within a few months of initial diagnosis of IBD and which may be handled without referral in the context of an empathic provider-patient relationship from more severe symptoms (e.g., suicidality) or extended period of impaired functioning when referral may be warranted. Using screening tools such as MESSAGE or quality of life proxies (e.g., well-being item on the Pediatric Crohn’s Disease Activity Index) at regular GI appointments or more frequently if the team senses extreme distress can also be a way of identifying at risk youth. While validated questionnaires like the Children’s Depression Inventory(34) have also been useful, it is important to note that many such measures are not available in the public domain and must be purchased.

In terms of treatment, cognitive behavioral therapy (CBT) has the most empirical support for the treatment of anxiety and depression in children and adolescents. The provision of CBT requires training and is best provided by a mental health professional with training in understanding the unique impact of pediatric chronic illness (e.g., psychologist, therapist, social worker, counselor). While serotonin re-uptake inhibitors and tricyclic antidepressants are commonly prescribed for comorbid psychopathology, abdominal pain, and sleep disturbance, there is little empirical support for their use. Thus careful documentation as well as frequent follow-up visits are recommended. It is important that pediatric providers define their threshold of comfort in prescribing psychotropic medications themselves versus referral to a psychiatrist. For patients who have failed a class of antidepressant, have severe or co-morbid psychopathologies, extensive life stress, or those who are non-compliant with medical follow-up, including a psychiatrist as part of the team is highly recommended.

It is also important to consider that psychotropic medications may have drug-drug interactions with medications used to treat IBD. For example, TNF-α decreases serotonin transporter function.(35) Psychotropic medications also require monitoring for potential side effects (e.g., suicidal ideation, akathesia). Finally, in children and adolescents, the long-term developmental consequences of these medications are not known. In conclusion, the first-line approach to psychological problems is psychosocial intervention by a mental health professional, and use of adjunctive psychotropic medication is best managed with the involvement of psychiatrist or behavioral pediatrician.

Table 1  Summary of Recommendations for Providers

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<th>Psychosocial Area</th>
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| General/All areas | • Differentiate short-term, situational distress (e.g., diagnosis or flare related) from extended period of impaired functioning  
• If the difficulty significantly affects a child’s life and/or causes significant distress, refer to a mental health professional with training in understanding the unique impact of pediatric chronic illness (e.g., psychologist, therapist, social worker, counselor) |
### Psychopathology

- Use screening tools (e.g., MESSAGE) or QOL proxies (e.g., well-being item on PCDAI)
- Cognitive behavioral therapy (CBT) has the most empirical support for treating anxiety, depression
- Little empirical support for serotonin re-uptake inhibitors and tricyclic antidepressants
- Frequent follow-up visits recommended
- Include a psychiatrist if patient:
  - Fails a class of antidepressant
  - Has severe or co-morbid psychopathologies or extensive life stress
  - Are non-compliant with medical follow-up

### Rationale for the Measure

IBD presents many potential challenges to psychosocial development and adjustment for adolescents. IBD is an unpredictable and potentially embarrassing disease. As with any chronic disease the risk of depression is elevated.