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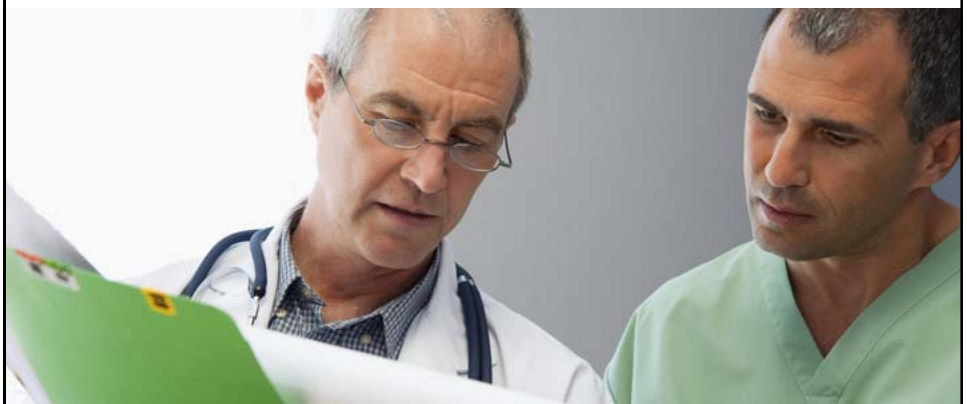

Managing the Member with Inflammatory Bowel Disease (Crohn's Disease and Ulcerative Colitis)

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November 2018

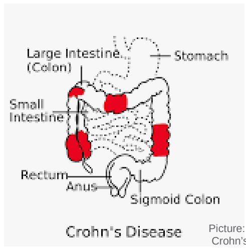
Agenda

Inflammatory Bowel Disease (IBD): Crohn's Disease (CD) and Ulcerative Colitis (UC)

- Definition
- Causes and Associated Factors
- Symptoms and Signs
- Diagnosis
- Treatment
- Complications
- Health Maintenance in Inflammatory Bowel Disease (IBD)
- Key Points in Case Management for IBD
- Behavioral Health in IBD
- Case Study
- Case Management Opportunities

Crohn's Disease: Definition

- Also known as **ileitis** or **regional enteritis**
- Is a chronic inflammatory condition of the gastrointestinal tract
- It is an autoimmune disease in which the immune system recognizes part of the gastrointestinal tract as foreign and attacks it, causing chronic inflammation
- Typically affects the **ileum** (the lower part of the small intestine)
- Can develop in any part of the gastrointestinal tract, from the **mouth to the anus**; this sets it apart from ulcerative colitis which usually involves the rectum and lower colon

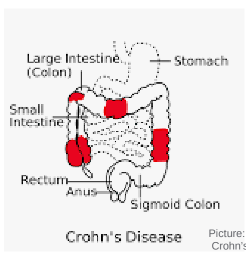


Picture: Google advance search, Crohn's Disease

UpToDate: www.uptodate.com/contents/overview-of-the-medical-management-of-mild-low-risk-crohn-disease-in-adults, Overview of the medical management of mild (low risk) Crohn Disease in adults

Crohn's Disease: Definition

- The inflammatory process of Crohn's Disease is **transmural (full thickness of the bowel wall)**, and can result in fibrosis, fistula formation and strictures. This is different from ulcerative colitis which typically involves only the mucosal lining of the gut.
- Involves discontinuous segments of the intestine known as **"skip lesions"**
- It is a type of inflammatory bowel disease (IBD) not to be confused with irritable bowel syndrome (IBS).



Picture: Google advance search, Crohn's Disease

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Crohn's Disease: Causes and Associated Factors

- Can occur at any age, but usually starts between ages 15 and 30 years[1]
- Cause is unknown; there are many theories:
  - Response of the body's immune system to a virus or bacterium
  - Genetic predisposition
  - Crohn's Disease is most common among Caucasians[1] and those of Jewish descent
  - Genetic mutation[2]
  - Diet: processed sugary foods are associated with increased risk
  - Tobacco use is associated with increased risk
- Affects males and females equally
- Physical activity is associated with decreased risk of Crohn's Disease[1]

[1] CCF: www.crohnscolitisfoundation.org/assets/pdfs/ibd-and-irritable-bowel.pdf, Who Get's IBD, causes and reducing and managing stress
[2] NIH: www.ncbi.nlm.nih.gov/pubmed/15516846, Abstract

Crohn's Disease: Signs and Symptoms

Common symptoms include:

Abdominal pain, often in the **right lower** quadrant	Joint pain (the most common extra – intestinal symptom
Diarrhea	Skin lesions
Rectal bleeding	Slowed growth in children
Malabsorption and weight loss	Fistulas
Fever	Abscess
Foul-smelling or bloody stools	Eye disorders

- Keep in mind, however, symptoms may be intermittent with periods of exacerbation and remission.
- A person may have no symptoms of Crohn's Disease until narrowing of the gut lumen causes constipation, abdominal pain and early signs of bowel obstruction.

UpToDate: www.uptodate.com/contents/clinical-manifestations-diagnosis-and-prognosis-of-crohn-disease-in-adults?search=crohns&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2, Clinical manifestations

Crohn's Disease: Diagnosis

Differential Diagnosis

- Irritable bowel syndrome (IBS)
- Lactose intolerance
- Infectious colitis
- **Ulcerative colitis** (UC)

Diagnostic Tests

- Stool sample analysis (to check for blood in the stool or rule out infection or malabsorption)
- Blood tests including: CBC, CRP, ESR, LFTs, renal studies, iron, Vit D, B12, fecal calprotectin level
- Antibody blood tests may be ordered: Antineutrophil Cytoplasmic Antibodies (pANCA), anti-saccharomyces cerevisiae (ASCA)
- CT scan
- MRI
- Upper gastrointestinal series
- Upper gastrointestinal endoscopy
- Flexible sigmoidoscopy
- Colonoscopy
- Capsule endoscopy

The diagnosis of Crohn's Disease is made based on history and endoscopic findings or imaging studies

UpToDate: www.uptodate.com/contents/clinical-manifestations-diagnosis-and-prognosis-of-crohn-disease-in-adults?search=crohns&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2#H12689148, Differential diagnosis and diagnostic tests

Treatment of Crohn’s Disease

- **There is no cure for Crohn's disease**
- **Treatment goals are aimed at:**
  - Reducing inflammation
  - Improving nutritional status
  - Alleviating abdominal pain, diarrhea and rectal bleeding
- Decision regarding treatment plan is based on severity of the disease, presence of complications and previous treatments
- 10 to 20 percent of people experience long-term disease remission after the initial episode of disease flare, but most people will continue to have flare ups of the disease.
- Ongoing treatment increases the chance of entering and staying in remission
- **Lifestyle changes:**
  - Tobacco cessation: Tobacco use is associated with development of the Crohn's Disease, resistance to therapy and disease relapse
  - Healthful eating: Low FODMAP diet (reducing consumption of fermentable oligosaccharides, disaccharides, monosaccharides, and polyols). High FODMAP foods lead to diarrhea, constipation, gas, bloating and cramping.
  - Avoid food triggers

CCF: www.crohnscolitisfoundation.org/assets/pdfs/ibd-and-irritable-bowel.pdf, Treating IBD & IBS

Treatment of Crohn's Disease: Medications

Medication Class	Drugs
Aminosalicylates • Help control inflammation • Generally used to treat mild symptoms	sulfasalazine (Azulfidine®) mesalamine (Asacol®, Pentasa®, Lialda®)
Glucocorticoids • Immune suppressive and reduce inflammation • Used to induce remission, but generally not prescribed for long-term use	budesonide (Entocort® EC) prednisone
Immune suppressive medications • Reduce inflammation • Can take several weeks to 3 months to start working • May be combined with a biologic agent	azathioprine (Imuran®) 6-mercaptopurine (Purinethol®) methotrexate (Trexall®) cyclosporine (Neoral®)

UpToDate: www.uptodate.com/contents/overview-of-medical-management-of-high-risk-adult-patients-with-moderate-to-severe-crohn-disease?search=crohns% 20treatment&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2, Induction therapy

Treatment of Crohn's Disease: Medications

- **Biologic Agents**
  - To reduce inflammation, targets proteins made by the immune system
  - Generally used in moderate or severe disease to induce and maintain remission
  - Use increases risk of infection
    - Tuberculosis and baseline evaluation for vaccine preventable infections recommended
  - Hold in the event of a serious infection

Medication Class	Drug
TNF – inhibitors (blockers)	infliximab (Remicade®) adalimumab (Humira®) certolizumab (Cimzia®)
Anti-integrin (monoclonal antibody)	vedolizumab (Entyvio®) natalizumab (Tysabri®)
Anti-interleukin-12 and interleukin-23	ustekinumab (Stelara®)

- **Other Therapies**
  - Antidiarrheal medications (should not be used in moderate/severe disease or those at risk for bowel obstruction)
  - Pain relievers (avoid NSAIDs as they may make symptoms worse)
  - Antibiotics for infection

Lexicomp: online.lexi.com/lco/action/home

Crohn's Disease: Treatment Medications

Outpatient treatment of Crohn's Disease may be approached 2 ways:

1. **Step-up therapy**
   - Starts with medications that are less potent and associated with fewer adverse effects
   - If those medications are ineffective, more potent (and potentially more toxic) drugs are used
   - Often used in **mild** Crohn's Disease
2. **Top-down therapy**
   - Starts with more potent therapies, such as biologic medications or immune suppressants
   - These medications are started relatively early in the course of the disease
   - Often used in moderate to **severe** Crohn's Disease

UpToDate: www.uptodate.com/contents/overview-of-the-medical-management-of-mild-low-risk-crohn-disease-in-adults?search=crohn's%20disease% 20treatment&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1, Step-up vs top down therapy

Crohn's Disease: Surgery

- If medical management is not successful or complications develop, surgery may be recommended to remove the diseased part of the bowel
- About 50 percent of people who have Crohn's Disease require surgery
- Following surgery, recurrences in other parts of the intestine may occur

For Example:

- Partial small bowel obstruction is common in persons with longstanding Crohn's Disease. This is often treated medically with
  - Hydration
  - Nasogastric suction
  - Parenteral nutrition
  - Response usually seen within 24 to 48 hours
  - If this medical therapy is not successful or if small bowel ischemia is occurring, surgery may be needed

UpToDate: www.uptodate.com/contents/operative-management-of-crohn-disease-of-the-small-bowel-colon-and-rectum?search=crohn's%20disease%20surgery&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

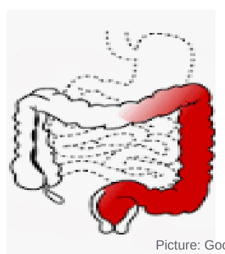
Crohn's Disease: Complications

- Small bowel obstruction
- Anemia
- Abscess
- Fistulas which may involve the bladder, vagina or skin
- Perianal disease
- Malabsorption or nutritional deficiencies
- Arthritis
- Deep vein thrombosis
- Pulmonary embolism
- Osteoporosis
- Skin problems
- Inflammation in the eyes or mouth
- Diseases of the liver and biliary tract
- Kidney stones
- Gallstones
- Rarely, intestinal failure
- Severe bleeding
- Colon cancer: Studies conflict regarding the risk of colon cancer in patients with longstanding Crohn's colitis. Risk depends on long disease has been present and how much of colon is affected

UpToDate: www.uptodate.com/contents/clinical-manifestations-diagnosis-and-prognosis-of-crohn-disease-in-adults?search=crohns&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2

Ulcerative Colitis: Definition

- Ulcerative colitis is a form of inflammatory bowel disease
- Ulcerative colitis is a chronic inflammatory condition of the **mucosal layer (lining)** of the **rectum and colon**
  - This is unlike Crohn's Disease, which may involve mouth to anus
  - Episodes of inflammation come and go
  - Small ulcers or sores develop in the mucosa of the colon that bleed and produce pus
- All or part of the **colon** may be affected



Picture: Google advance search, Ulcerative Colitis

UpToDate: www.uptodate.com/contents/clinical-manifestations-diagnosis-and-prognosis-of-ulcerative-colitis-in-adults?search=Ulcerative%20Colitis&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

Ulcerative Colitis: Causes and Associated Factors

- The exact cause of ulcerative colitis is unknown
- May involve a combination of environmental, genetic and immune factors
- Ulcerative colitis occurs in a bimodal pattern:
  – Often begins between ages 15 and 30
  – After age 60[1]
- Occurs more often in Caucasians and people of Jewish descent[2]

[1] CCF: http://www.crohnscolitisfoundation.org/assets/pdfs/ibd-and-irritable-bowel.pdf, Who Get's IBD, causes and reducing and managing stress
[2] NIH: https://www.ncbi.nlm.nih.gov/pubmed/15516846, Abstract

Ulcerative Colitis: Signs and Symptoms

– **Symptoms of mild ulcerative colitis include:**
  - **Four or fewer episodes** of diarrhea a day
  - Intermittent rectal bleeding
  - Fecal urgency
  - Abdominal cramping, often in the lower left quadrant
  - Cramping that's relieved by defecation

– **Symptoms of moderate ulcerative colitis include:**
  - **Five to six episodes** of bloody diarrhea a day
  - Abdominal pain and tenderness
  - Mild fever

– **Symptoms of severe ulcerative colitis include:**
  - **More than six episodes** of bloody diarrhea a day
  - Severe abdominal pain and tenderness
  - Fever

UpToDate: www.uptodate.com/contents/management-of-mild-to-moderate-ulcerative-colitis-in-adults?search=Ulcerative%20Colitis&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2, Assessment of clinical severity

Ulcerative Colitis: Diagnosis

The diagnosis of ulcerative colitis is made based on history and endoscopic findings or imaging studies

History and physical exam:

- Chronic diarrhea for more than four weeks
- Evidence of active inflammation/chronic colitis on endoscopy and biopsy
- Exclusion of other causes of colitis

Diagnostic tests may include:

- Flexible sigmoidoscopy
- Colonoscopy
- CT scan
- MRI
- X-rays
- Stool sample analysis (to check for infection or parasites)

Blood tests in severe colitis:

Often normal, but in severe colitis

- CBC: may show anemia
- ESR: elevated > 30mm/hour
- Albumin: low
- Electrolyte abnormalities due to diarrhea and dehydration
- Fecal calprotectin or lactoferrin may be elevated due to intestinal inflammation

UpToDate: www.uptodate.com/contents/clinical-manifestations-diagnosis-and-prognosis-of-ulcerative-colitis-in-adults?search=Ulcerative%20 Colitis&source= search_result&selectedTitle=1~150&usage_type=default&display_rank=1, Diagnosing

Ulcerative Colitis: Goals and Lifestyle Changes

The Goal of Treatment:

- Improve symptoms
- Prevent future episodes
- Note medical treatment is not curative

Treatment Options:

- Depend on severity of the disease
- Prior treatments
- Complications from the condition

Lifestyle Changes:

- Eat smaller meals throughout the day, rather than two or three large meals
- Avoid foods that may worsen symptoms
  - Limit sweets, sweetened beverages
  - Limit caffeine
  - Limit gas-producing foods such as cabbage, broccoli, cauliflower, Brussels sprouts, onions, beans, dairy products, corn, carbonated beverages and beer
- Eat a variety of foods such as:
  - Fruits, vegetables and whole grains
  - Low-fat dairy products, fish, poultry, legumes and nuts
  - Items low in saturated and total fats, no trans fats
  - Low sodium food
  - FODMAP diet (see appendix)

CCF: www.crohnscolitisfoundation.org/assets/pdfs/ibd-and-irritable-bowel.pdf

Ulcerative Colitis: Treatment Medications

Medication Class	Drugs
Aminosalicylates • Helps control inflammation that causes symptoms • Help to remain in remission • Oral or topical (enema or suppository) use	olsalazine (Dipentum®) mesalamine (Asacol®, Pentasa®, Lialda®) balsalazide (Colazal®) Sulfasalazine (Azulfidine®)
Glucocorticoids • Immune suppressive and reduce inflammation • Used to induce remission, but generally not prescribed for long-term use	budesonide (Uceris®) prednisone hydrocortisone methylprednisolone (Medrol®)
Immune suppressive medications • Reduce inflammation • Can take several weeks to 3 months to start working • Used when aminosalicylates and corticosteroids aren't effective to control symptoms	azathioprine (Imuran®) 6-mercaptopurine (Purinethol®) cyclosporine (Neoral®)

LexiComp: online.lexi.com/lco/action/home

Ulcerative Colitis: Treatment Medications

- **Biologic Agents**
  - Reduces inflammation by targeting proteins made by the immune system
  - Use increases risk of infection
    - Tuberculosis and baseline evaluation for vaccine preventable infections recommended
  - Hold in the event of a serious infection
  - Used in moderate to severe UC

Medication Class	Drug
TNF Inhibitors (Blockers)	infliximab (Remicade®) adalimumab (Humira®) golimumab (Simponi®)
Anti-integrin Monoclonal Antibody	vedolizumab (Entyvio®)
Janus-kinase (JAK) inhibitor	tofacitinib (Xeljanz®)

- **Other Therapies**
  - Antidiarrheal medications
  - Pain relievers (avoid NSAIDs as they may make symptoms worse)
  - Antibiotics to prevent or treat infection

LexiComp: online.lexi.com/lco/action/home

Ulcerative Colitis: Surgery

- Surgery may be indicated if symptoms are severe, medication has failed or if there is a potential life threatening condition such as:
  - Severe gastrointestinal bleeding
  - A perforated (torn) colon
  - Colorectal cancer
  - Toxic megacolon (an extremely enlarged colon)

- **There are two primary surgical procedures for ulcerative colitis**
  1. **Proctocolectomy with ileostomy**
  2. **Ileal pouch-anal anastomosis (IPAA)**
  - Both include **proctocolectomy** (removal of the colon and rectum)
  - The difference in the two procedures is **how intestinal waste is eliminated from the body after the procedure is performed**

NIH: www.niddk.nih.gov/health-information/digestive-diseases/ulcerative-colitis, Surgery

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Ulcerative Colitis: Surgery

1. Proctocolectomy with ileostomy

- Least common procedure
- With this procedure, the colon, rectum and anus are removed
- The ileum is brought through a surgical opening, usually in the lower right abdomen
- This results in a **permanent** ileostomy

2. Ileal pouch-anal anastomosis (IPAA), also called restorative proctocolectomy

- Most common procedure
- It's done in two stages
  - In the **first stage** the colon and rectum are removed.
  - A pouch is created out of the lower end of the small intestine (ileum). This pouch is connected to the anus.
  - A **temporary** ileostomy (procedure to connect the ileum to the outside of the body) is performed to allow the pouch to heal. A bag is worn to collect intestinal waste.
  - 10 to 12 weeks later - In the **second stage,** the ileostomy is closed and the stool passes through the anus.

- **Benefits of proctocolectomy**
  - **Ulcerative colitis maybe cured when the colon is removed**
  - **The risk of colon cancer is significantly reduced**
- **Risks of proctocolectomy**
  - There's a risk of stool leakage and bowel obstruction
  - Pouchitis (inflammation of the ileal pouch) may develop with the IPAA procedure

NIH: www.niddk.nih.gov/health-information/digestive-diseases/ulcerative-colitis, Surgery

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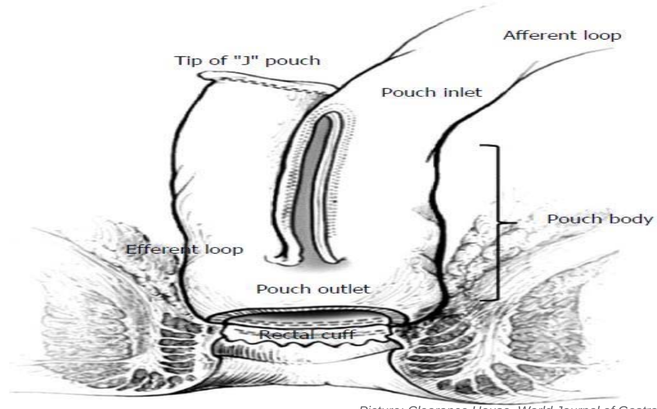
Ulcerative Colitis: Surgery



Picture: Clearance House, World Journal of Gastroenterology

Ulcerative Colitis: Complications

– Colon cancer
  - Significant risk of developing colon cancer within 15 to 20 years after the onset of colitis or within 8 to 10 years if the condition involves the entire colon
  - Colonoscopy at least every 1 to 2 years is recommended if moderate or severe ulcerative colitis for the last 8 to 10 years.

– Anxiety and depression
– Arthritis
– Eye problems
– Liver disease
– Disease of the bile ducts
– Kidney problems
– Osteoporosis
– Venous thrombosis
– Skin lesions
– Perforated colon
– Toxic megacolon
– Anemia
– Peritonitis
– Severe gastrointestinal bleeding
– Strictures
– Nutritional deficiencies
– Dehydration

NIH: https://www.niddk.nih.gov/health-information/digestive-diseases/ulcerative-colitis, What are the complications?

Health Maintenance in IBD

- Case Managers should review vaccination status with the member:
  - **Influenza**
  - **Pneumococcal** (PPV23 and Prevnar13)
  - **Herpes zoster** vaccine (Shingrix)
  - **Live vaccines** (eg, MMR, varicella, Zostavax) are contraindicated in members who have been on immunosuppressive therapy within the last three months or who are planning to start immunosuppressive therapy within the next six weeks
  - **Hepatitis B** Vaccine: Patients should be screened for hepatitis B before initiating anti-TNF (Biologic) therapy and people who are seronegative should be vaccinated for hepatitis B
- Case Managers should encourage members to discuss health maintenance with their doctors and understand their need to be screened for:
  - Colorectal cancer
  - Cervical cancer
  - Skin cancer
  - Osteoporosis
  - Anemia
  - Anxiety/depression

Behavioral Health & Chronic Medical Disorders

- Mental health disorders are common:
  - 44 million adults (2016)[1]
  - Just over 20% – or 1 in 5 – children (2015)[2]
  - IBD can have an impact on quality of life
- The majority of those with a mental health disorder who seek treatment see only their primary care physician.[3] Even if the mental health issue is diagnosed, the demands of a busy primary care practice can often result in the issue not being addressed[2]
- Fewer than half of adults with a mental health disorder receive treatment (2016).[1]

[1] NIH: www.nimh.nih.gov/health/statistics/mental-illness.shtml, Mental illness
[2] CDC: www.cdc.gov/mentalhealth/learn/index.htm, Learn about mental health, fast fact
[3] UpToDate: www.uptodate.com/contents/overview-of-psychotherapies?search=Problem%20Solving%20Therapy&source=search_result&selectedTitle=4~32&usage_type=default&display_rank=, Overview of psychotherapies, primary care

Behavioral Health & GI Disorders: Cause or Effect?

- Prevalence of anxiety and depression in UC is 50 – 64% in contrast to 11% in healthy controls
- Prevalence of anxiety and depression in IBS is 32 - 38% in contrast to 6% in healthy controls
- Alterations in Gut Microbiota caused by anxiety / depression effects on colonic motility; the result is reduced mucosal protection as well as the loss of normal flora
- These effects may be related to psychological suffering caused by CHRONIC mental or physical illness

NIH: www.ncbi.nlm.nih.gov/pmc/articles/PMC4073018, Table 3

Mental Health Risk Factors

Risk factors for both chronic medical disorders and mental health disorders:

- Childhood Adversity:
  - Losses
  - Abuse and neglect
  - Household dysfunction
- Stress:
  - Adverse life events
  - Chronic stressors
- Socioeconomic Stressors:
  - Poverty
  - Lack of self care skills
  - Neighborhood issues
  - Social support issues
  - Isolation

CDC: www.cdc.gov/workplacehealthpromotion/tools-resources/pdfs/issue-brief-no-2-mental-health-and-chronic-disease.pdf, Mental health and Chronic Disease, what causes mental health disorders and chronic disease?

Adverse Childhood Experiences (ACE)

ACE Study:

- Collaboration between the Center for Disease Control and Prevention (CDC) and Kaiser Health Plan's Department of Preventative Medicine in San Diego, California
- 1995 to 1997 - original ACE Study was conducted at Kaiser Permanente
- The CDC continues ongoing surveillance of ACEs by assessing the medical status of the study participants via periodic updates of morbidity and mortality data[1]
- Score ranges from 0 to 10; the higher the score, the greater cumulative exposure to traumatic stress and the higher the prevalence of mental, social and physical health problems in adulthood including coronary heart disease[2]

Key Concepts:

- Stressful or traumatic childhood experiences, (ACEs), are a common pathway to social, emotional and cognitive impairments.[1]
- ACEs disrupt neurodevelopment and can have lasting effects on brain structure and function.[2]

[1] CDC: www.cdc.gov/violenceprevention/acestudy/, About the CDC-Kaiser ACE Study
[2] Am J Prev Med: www.ajpmonline.org/article/S0749-3797(98)00017-8/fulltext, The adverse childhood experiences (ACE) study, table 1 and discussion

Components of the ACE Questionnaire

Childhood Abuse
- Emotional
- Physical
- Sexual

Neglect
- Emotional
- Physical

Dysfunctional Household
- Witnessing domestic violence
- Alcohol or other substance abuse
- Mentally ill or suicidal household members
- Crime in the home (household member imprisoned)
- Parents separated or divorced

CDC: www.cdc.gov/violenceprevention/acestudy/about.html, About the CDC-Kaiser ACE study, data and statistics

Behavioral Health & Chronic Medical Disorders

- Treatment of the medical condition often takes precedence and also distracts from the mental health conditions.
  - Disturbed sleep
  - Fatigue
  - Poor appetite[1]
- In primary care, anxiety and depression often present as:
  - Headache
  - Fatigue
  - Pain
  - Gastrointestinal problems
- Even if the mental health issue is diagnosed, the demands of a busy primary care practice can often result in the issue not being addressed.[2]

[1] NIH: www.ncbi.nlm.nih.gov/pmc/articles/PMC1070773/, Chronic medical illness
[2] UpToDate: www.uptodate.com/contents/screening-for-depression-in-adults?search=Primary%20Care%20and%20Depression&source=search_result&selectedTitle=3~150&usage_type=default&display_rank=3, Screening for depression in adults, introduction and presentation natural history and course of illness

Behavioral Health & GI Disorders: Treatment Options

- Chronic Disease Management
  - Exercise, diet
- Stress Management
- Support Groups
  - Fighting against social isolation
- Talk Therapies
  - Conflict mitigation
  - Mindfulness based stress reduction
  - Calm
- Medications:
  - SSRIs
  - Tricyclics

APA: psycnet.apa.org/record/2001-06566-006

Key Points in Case Management for IBD

Right Provider:
- PCP
- GI doctor in some cases
- BH provider in certain cases
- Surgeon in some cases

Right Care
- Close routine follow-up with doctor and prompt evaluation of possible flare-ups
- Labs and imaging when appropriate
- Health Maintenance: vaccinations and screenings (Cervical cancer, Skin cancer, Osteoporosis, Anemia, Anxiety/depression)
- Colonoscopy: for some patients this means colonoscopy eight years after symptoms started and then once per year thereafter

Right medications
- A variety of medication choices to reduce symptoms and prevent future disease flares
- Adherence to medications
- Generally avoid NSAIDS

Right Lifestyle
- Diet: Avoid dietary triggers, possible lactose intolerance, consider elimination diets. Consider FODMAP diet, enteral nutrition supplements in some cases may be necessary in those with undernutrition in Crohn's Disease.
- Daily Exercise as recommended by provider
- Refer member to helpful website:

Crohn's & Colitis Foundation
(800) 932-2423
www.crohnscolitisfoundation.org

Case Study - Polling Question #1

Bob Jones is a 30 year old man with no significant past medical history. His social history is significant for smoking 1 pack of cigarettes a day for 10 years, and he works at a sedentary job and doesn't like to exercise.

Over the last several months Bob had been experiencing frequent episodes of intermittent right lower quadrant abdominal pain and frequent diarrhea.

Case Study – Polling Question #2

Bob decided to visit his PCP and complained of the intermittent right lower quadrant pain and frequent diarrhea. The PCP took the member's history and performed a physical exam. The physical exam that day was negative. The doctor then ordered some lab tests, including blood and stool tests. The tests showed a mild anemia and also an mild elevations in ESR, CRP, and calprotectin level.

The doctor was concerned about possible Inflammatory Bowel Disease. The PCP referred Bob to a GI specialist who performed an EGD (upper endoscopy) and colonoscopy. These procedures revealed limited patches of inflammation and superficial ulceration in the terminal ileum. Microscopic evaluation of biopsies taken proved that the lesions were transmural (full thickness) in nature and not limited to the lining of the mucosa.

Case Study – Polling Question #3

The diagnosis of **mild Crohn's Disease** was made. Member was started on enteric coated budesonide as an outpatient. The plan was for 8-12 weeks of therapy with budesonide to induce a remission. He was then to have an ileocolonoscopy in six to 12 months after achieving clinical remission. CRP and fecal Calprotectin would be repeated to assess the degree of mucosal healing.

At first, member appeared to be doing better, but at 8 weeks into this budesonide therapy, member developed nausea, vomiting, abdominal pain. He was not able to pass flatus or stool.

He was brought into the hospital and diagnosed with a **Partial Small Bowel Obstruction**. Intravenous hydration, nasogastric suction, and parenteral nutrition were initiated.

On hospital day 2, however, member spiked a fever, developed chills, and a high white blood cell count. He was diagnosed with **peritonitis caused by a microperforation of his bowel**. He was placed on bowel rest and started on antibiotic therapy. He eventually improved and went home.

On discharge his diagnosis was changed from mild Crohn's Disease to **moderate/severe Crohn's Disease.** He was discharged home on **combination therapy of Humira® and Azathioprine.** The goal is to induce and maintain remission.

Case Study Review

On a follow-up call with the member, appropriate management includes:

1. Encourage the member to contact their healthcare provider if they develop abdominal pain and/or worsening diarrhea and/or having bloody stools
2. If the member is post surgery encourage them to contact their healthcare provider if they have fever and/or abdominal pain and/or bleeding.
3. Review all current medications and reconcile medication list based the current drug regimen.
4. Review biometrics and labs including BMI, CBC, renal function, LFTs, amylase. Update in trackers.
5. Encourage member to discuss vaccinations including influenza, pneumonia, and hepatitis B.
6. Provide support and education on the need for smoking cessation. Offer Wellness, 1-800-QUIT-Now or other program.
7. Encourage daily exercise. Advise him to consult his doctor for an exercise plan appropriate for him.
8. Screen member for anxiety and depression. Offer EAP/UBH to help in coping with serious medical problems.

Appendix

Characteristics and sources of common FODMAPs

	Word that corresponds to letter in acronym	Compounds in this category	Foods that contain these compounds
F	**F**ermentable		
O	**O**ligosaccharides	Fructans, galacto-oligosaccharides	Wheat, barley, rye, onion, leek, white part of spring onion, garlic, shallots, artichokes, beetroot, fennel, peas, chicory, pistachio, cashews, legumes, lentils, and chickpeas
D	**D**isaccharides	Lactose	Milk, custard, ice cream, and yogurt
M	**M**onosaccharides	"Free fructose" (fructose in excess of glucose)	Apples, pears, mangoes, cherries, watermelon, asparagus, sugar snap peas, honey, high-fructose corn syrup
A	**A**nd		
P	**P**olyols	Sorbitol, mannitol, maltitol, and xylitol	Apples, pears, apricots, cherries, nectarines, peaches, plums, watermelon, mushrooms, cauliflower, artificially sweetened chewing gum and confectionery

FODMAPs: fermentable oligosaccharides, disaccharides, monosaccharides, and polyols.

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Thank You.

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