INFLAMMATORY BOWEL DISEASE: ULCERATIVE COLITIS, REGIONAL ENTERITIS (CROHN'S DISEASE, ILEOCOLITIS)

Inflammatory bowel disease (IBD): Researchers believe that IBD may result from a complex interplay between genetic and environmental factors. Similarities involve (1) chronic inflammation of the alimentary tract and (2) periods of remission interspersed with episodes of acute inflammation.

Ulcerative colitis (UC): A chronic condition of unknown cause usually starting in the rectum and distal portions of the colon and possibly spreading upward to involve the sigmoid and descending colon or the entire colon. It is usually intermittent (acute exacerbation with long remissions), but some individuals (30%–40%) have continuous symptoms. Cure is effected only by total removal of colon and rectum/rectal mucosa.

Regional enteritis (Crohn’s disease, ileocolitis): May be found in portions of the alimentary tract from the mouth to the anus but is most commonly found in the small intestine (terminal ileum). It is a slowly progressive chronic disease of unknown cause with intermittent acute episodes and no known cure. UC and regional enteritis share common symptoms but differ in the segment and layer of intestine involved and the degree of severity and complications. Therefore, separate databases are provided.

CARE SETTING
Usually handled at the community level; however, severe exacerbations requiring advanced pain control, nutrition, rehydration may necessitate short stay in acute care medical unit.

RELATED CONCERNS
Fecal diversions: postoperative care of ileostomy and colostomy
Fluid and electrolyte imbalances, see Nursing Care Plan CD-ROM
Peritonitis
Psychosocial aspects of care
Total nutritional support: parenteral/enteral feeding

Patient Assessment Database—Ulcerative Colitis

ACTIVITY/REST
May report: Weakness, fatigue, malaise, exhaustion
Insomnia, not sleeping through the night because of diarrhea
Feeling restless
Restriction of activities/work due to effects of disease process

CIRCULATION
May exhibit: Tachycardia (response to fever, dehydration, inflammatory process, and pain)
Bruising, ecchymotic areas (insufficient vitamin K)
BP: Hypotension, including postural changes

EGO INTEGRITY
May report: Anxiety, apprehension, emotional upsets, e.g., feelings of helplessness/hopelessness
Acute/chronic stress factors, e.g., family/job-related, expense of treatment
Cultural factor—increased prevalence in Jewish population

May exhibit: Withdrawal, narrowed focus, depression

ELIMINATION
May report: Stool texture varying from soft-formed to mush or watery
Unpredictable, intermittent, frequent, uncontrollable episodes of bloody diarrhea (as many as 20–30 stools/day); sense of urgency/cramping (tenesmus); passing blood/pus/mucus with or without passing feces
Rectal bleeding
History of renal stones (dehydration)
May exhibit: Diminished or hyperactive bowel sounds, absence of peristalsis or presence of visible peristaltic waves
Hemorrhoids, anal fissures (25%); perianal fistula (more frequently with Crohn’s disease)
Oliguria

FOOD/FLUID
May report: Anorexia; nausea/vomiting
Weight loss (not common, but can occur as a result of decreased intake)
Dietary intolerances/sensitivities, e.g., raw fruits/vegetables, dairy products, fatty foods
May exhibit: Decreased subcutaneous fat/muscle mass
Weakness, poor muscle tone and skin turgor
Mucous membranes pale; sore, inflamed buccal cavity; dry, cracking of tongue (dehydration/malnutrition)

HYGIENE
May report: Inability to maintain self-care
May exhibit: Stomatitis reflecting vitamin deficiency
Unkempt appearance; body odor

PAIN/DISCOMFORT
May report: Mild abdominal cramping to severe pain/tenderness in lower-left quadrant (may be relieved with defection)
Migratory joint pain, tenderness (arthritis)
Eye pain, photophobia (iritis)
May exhibit: Abdominal tenderness, distension, rigidity

SAFETY
May report: History of lupus erythematosus, hemolytic anemia, vasculitis
Arthritis (worsening of symptoms with exacerbations in bowel disease)
Temperature elevation 104°F–105°F (acute exacerbation)
Blurred vision
Allergies to foods/milk products (release of histamine into bowel has an inflammatory effect)
May exhibit: Skin lesions may be present; e.g., erythema nodosum (raised, tender, red, and swollen) on arms, face; pyoderma gangrenosum (purulent pinpoint lesion/boil with a purple border) on trunk, legs, ankles
Ankylosing spondylitis
Uveitis, conjunctivitis/iritis

SEXUALITY
May report: Reduced frequency/avoidance of sexual activity

SOCIAL INTERACTION
May report: Relationship/role problems related to condition
Inability to be active socially

TEACHING/LEARNING
May report: Family history of IBD, immune disorders
Discharge plan considerations: DRG projected mean length of inpatient stay: 4.9 days
Assistance with dietary requirements, medication regimen, psychological support
Refer to section at end of plan for postdischarge considerations.

DIAGNOSTIC STUDIES
Stool specimens (examinations are used in initial diagnosis and in following disease progression): Mainly composed of mucus, blood, pus, and intestinal organisms, especially Entamoeba histolytica (active stage). Fecal leukocytes and RBCs indicate inflammation of GI tract. Stool positive for bacterial pathogens, ova and parasites or clostridium indicates infections. Stool positive for fat indicates malabsorption.
**Proctosigmoidoscopy:** Visualizes ulcerations, edema, hyperemia, and inflammation (result of secondary infection of the mucosa and submucosa). Friability and hemorrhagic areas caused by necrosis and ulceration occur in 85% of these patients.

**Cytology and rectal biopsy:** Differentiates between infectious process and carcinoma (occurs 10–20 times more often than in general population). Neoplastic changes can be detected, as well as characteristic inflammatory infiltrates called crypt abscesses.

**Barium enema:** May be performed after visual examination has been done, although rarely done during acute, relapsing stage, because it can exacerbate condition.

**Endoscopic examinations, e.g., sigmoidoscopy, esophagogastroduodenoscopy, or colonoscopy:** Identifies adhesions, changes in luminal wall (narrowing/irregularity); rules out bowel obstruction and allowed biopsy for features of Crohn’s disease or ulcerative colitis.

**Abdominal magnetic resonance imaging (MRI)/computed tomography (CT) scan, ultrasound:** Detects abscesses, masses, strictures, or fistulas.

**CBC:** May show hyperchromic anemia (active disease generally present because of blood loss and iron deficiency); leukocytosis may occur, especially in fulminating or complicated cases and in patients on steroid therapy.

**Erythrocyte sedimentation rate (ESR):** Elevated in acute inflammation according to severity of disease.

**Serum iron levels:** Lowered because of blood loss or poor dietary intake.

**PT:** Prolonged in severe cases from altered factors VII and X caused by vitamin K deficiency.

**Thrombocytosis:** May occur as a result of inflammatory disease process.

**Electrolytes:** Decreased potassium, magnesium, and zinc are common in severe disease.

**Prealbumin/albumin level:** Decreased because of loss of plasma proteins/disturbed liver function, decreased dietary intake.

**Alkaline phosphatase:** Increased, along with serum cholesterol and hypoproteinemia, indicating disturbed liver function (e.g., cholangitis, cirrhosis).

**Disease-specific antibodies, ANCA (antineutrophil cytoplasmic antibodies):** Positive result increases suspicion of UC, but negative result does not rule out diagnosis.

**Bone marrow:** A generalized depression is common in fulminating types/after a long inflammatory process.

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**Patient Assessment Database—Regional Enteritis (Crohn’s Disease, Ileocolitis)**

**ACTIVITY/REST**

- **May report:** Weakness, fatigue, malaise, exhaustion
  - Feeling restless
  - Restriction of activities/work due to effects of disease process

**EGO INTEGRITY**

- **May report:** Anxiety, apprehension, emotional upsets, feelings of helplessness/hopelessness
  - Acute/chronic stress factors, e.g., family/job-related expense of treatment
  - Cultural factor—increased prevalence in Jewish population, frequency increasing in individuals of Northern European and Anglo-Saxon derivation

- **May exhibit:** Withdrawal, narrowed focus, depression

**ELIMINATION**

- **May report:** Unpredictable, intermittent, frequent, uncontrollable episodes of nonbloody diarrhea, soft or semi-liquid with flatus; foul-smelling and fatty stools (steatorrhea)
  - Intermittent constipation
  - History of renal stones (increased oxalates in the urine)

- **May exhibit:** Hyperactive bowel sounds with gurgling, splashing sound (borborygmus)
  - Visible peristalsis

**FOOD/FLUID**

- **May report:** Anorexia; nausea/vomiting
  - Weight loss; failure to grow
  - Dietary intolerance/sensitivity, e.g., dairy products, fatty foods

- **May exhibit:** Decreased subcutaneous fat/muscle mass
  - Weakness, poor muscle tone and skin turgor
  - Mucous membranes pale
HYGIENE
May report: Inability to maintain self-care
May exhibit: Unkempt appearance; body odor

PAIN/DISCOMFORT
May report: Tender abdomen with cramping pain in lower right quadrant (inflammation involving all layers of bowel wall and possibly the mesentery); pain in midlower abdomen (jejunal involvement)
Referred tenderness to periumbilical region
Perineal tenderness/pain
Migratory joint pain, tenderness (arthritis)
Eye pain, photophobia (iritis)
May exhibit: Abdominal tenderness/distension

SAFETY
May report: History of arthritis, systemic lupus erythematosus (SLE), hemolytic anemia, vasculitis
Temperature elevation (low-grade fever)
Blurred vision
May exhibit: Skin lesions may present: erythema nodosum (raised tender, red swelling) on face, arms; pyoderma gangrenosum (purulent pinpoint lesion/boil with a purple border) on trunk, legs, ankles; perineal lesions/anorectal fistulas
Ankylosing spondylitis
Uveitis, conjunctivitis/iritis

SOCIAL INTERACTION
May report: Relationship/role problems related to condition; inability to be active socially

TEACHING/LEARNING
May report: Family history of IBD, immune disorders
Discharge plan considerations:
DRG projected mean length of inpatient stay: 4.9 days
Assistance with dietary requirements, medication regimen, psychological support
Refer to section at end of plan for postdischarge considerations.

DIAGNOSTIC STUDIES
Stool examination: Occult blood may be positive (mucosal erosion); steatorrhea and bile salts may be found.
X-rays: Barium swallow may demonstrate luminal narrowing in the terminal ileum, stiffening of the bowel wall, mucosal irritability or ulceration.
Barium enema: Small bowel is nearly always involved, but the rectal area is affected only 50% of the time. Fistulas are common and are usually found in the terminal ileum but may be present in segments throughout the GI tract.
Sigmoidoscopic examination: Can demonstrate edematous hyperemic colon mucosa, transverse fissures, or longitudinal ulcers.
Endoscopy: Provides visualization of involved areas.
Abdominal MRI/CT scan, ultrasound: Detects infections/inflammatory conditions
CBC: Anemia (hypochromic, occasionally macrocytic) may occur because of malnutrition or malabsorption or depressed bone marrow function (chronic inflammatory process); increased white blood cells (WBCs).
ESR: Increased, reflecting inflammation
Prealbumin/albumin/total protein: Decreased.
Cholesterol: Elevated (may have gallstones).
Serum iron-binding folic acid capacity/transferrin levels: Decreased because of chronic infection or secondary to blood loss.
Clotting studies: Alterations may occur because of poor vitamin B₁₂ absorption.
Electrolytes: Decreased potassium, calcium, and magnesium, with increased sodium.
Urine: Hyperoxaluria (can cause kidney stones).
Urine culture: If Escherichia coli organisms are present, suspect fistula formation into the bladder.
ASCA (antischizachromyces antibodies): Positive result increases suspicion of Crohn’s disease, but negative result does not rule out diagnosis.
NURSING PRIORITIES

1. Control diarrhea/promote optimal bowel function.
3. Promote optimal nutrition.
5. Provide information about disease process, treatment needs, and long-term aspects/potential complications of recurrent disease.

DISCHARGE GOALS

1. Bowel function stabilized.
2. Complications prevented/controlled.
3. Dealing positively with condition.
4. Disease process/prognosis, therapeutic regimen, and potential complications are understood.
5. Plan in place to meet needs after discharge.

NURSING DIAGNOSIS: Diarrhea

May be related to
- Inflammation, irritation, or malabsorption of the bowel
- Presence of toxins
- Segmental narrowing of the lumen

Possibly evidenced by
- Increased bowel sounds/peristalsis
- Frequent, and often severe, watery stools (acute phase)
- Changes in stool color
- Abdominal pain; urgency (sudden painful need to defecate), cramping

DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:

Bowel Elimination (NOC)
- Report reduction in frequency of stools, return to more normal stool consistency.
- Identify/avoid contributing factors

ACTIONS/INTERVENTIONS

Diarrhea Management (NIC)

Independent

- Observe and record stool frequency, characteristics, amount, and precipitating factors.
- Promote bedrest, provide bedside commode.
- Remove stool promptly. Provide room deodorizers.
- Identify foods and fluids that precipitate diarrhea, e.g., raw vegetables and fruits, whole-grain cereals, condiments, carbonated drinks, milk products.

RATIONALE

- Helps differentiate individual disease and assesses severity of episode.
- Rest decreases intestinal motility and reduces the metabolic rate when infection or hemorrhage is a complication. Urge to defecate may occur without warning and be uncontrollable, increasing risk of incontinence/falls if facilities are not close at hand.
- Reduces noxious odors to avoid undue patient embarrassment.
- Avoiding intestinal irritants promotes intestinal rest.
### ACTIONS/INTERVENTIONS

#### Diarrhea Management (NIC)

**Independent**

Restart oral fluid intake gradually. Offer clear liquids hourly; avoid cold fluids.

Provide opportunity to vent frustrations related to disease process.

Observe for fever, tachycardia, lethargy, leukocytosis, decreased serum protein, anxiety, and prostration.

**Collaborative**

Administer medications as indicated:

- **Antidiarrheals**, e.g., diphenoxylate (Lomotil), loperamide (Imodium), anodyne suppositories;

- **Anti-inflammatories**, e.g., 5-aminosalicylic acid (5-ASA), sulfasalazine (Azulfidine), mesalamine (Pentasa, Asacol, Rowasa), olsalazine (Dipentum);

- **Antispasmodics**, e.g., 1-hyoscyamine (Levsin), dicyclomine (Bentyl);

- Psyllium (Metamucil);

- Cholestyramine (Questran);

- Steroids, e.g., adrenocorticotropic hormone (ACTH), hydrocortisone (Cortenema, Cortifoam), prednisolone (Delta-Cortef), prednisone (Deltasone);

- Immune-modulating agents e.g., azathioprine (Imuran), 6-mercaptopurine (Purinethol), methotrexate (Mexate), cyclosporine (Sandimmune);

**RATIONALE**

Provides colon rest by omitting or decreasing the stimulus of foods/fluids.

Gradual resumption of liquids may prevent cramping and recurrence of diarrhea; however, cold fluids can increase intestinal motility.

Presence of disease with unknown cause that is difficult to cure and that may require surgical intervention can lead to stress reactions that may aggravate condition.

May signify that toxic megacolon or perforation and peritonitis are imminent/have occurred, necessitating immediate medical intervention.

Decreases GI motility/propulsion (peristalsis) and diminishes digestive secretions to relieve cramping and diarrhea. *Note:* Use with caution in UC because they may precipitate toxic megacolon.

Useful in treating mild/moderate exacerbations because of both anti-inflammatory and antimicrobial properties.

Long-term use may prolong remission. *Note:* Available in oral/time-release and pH-dependent forms. Rowasa may be given as an enema in lieu of sulfasalazine (Azulfidine) for patients who are sensitive to oral sulfa drugs.

May be useful to patients who do not respond to standard interventions.

Absorbs water to increase bulk in stools, thereby decreasing diarrhea.

Binds bile salts, reducing diarrhea that results from excess bile acid.

Decreases acute inflammatory process. Steroid enemas (Cortenema) may be given in mild/moderate disease to aid absorption of the drug (possibly with atropine sulfate or belladonna suppository). Current research suggests an 8-wk course of time-release steroids may effect remission in Crohn’s disease; however, steroids are contraindicated if intra-abdominal abscesses are suspected.

Immunosuppressant may be given to block inflammatory response, decrease steroid requirements, promote healing of fistulas.
### ACTIONS/INTERVENTIONS

#### Diarrhea Management (NIC)

**Collaborative**

- Monoclonal antibodies, e.g., IV infliximab (Remicade);
- Antiulcer agents, e.g., antacids, ranitidine (Zantac);
- Anti-infectives e.g., metronidazole (Flagyl), ciprofloxacin (Cipro);
- Assist with/prepare for surgical intervention, e.g., ileostomy, total colectomy, percutaneous abscess drainage.

#### RATIONALE

- Binds to tumor necrosis factor alpha (TNF[alpha]) an inflammatory agent found in high amounts in Crohn’s disease. Drug blocks the inflammatory agent’s activity, leading to decreased inflammation and promoting intestinal healing.
- Decreases gastric irritation, preventing inflammation and reducing risk of infection in colitis.
- Treats local suppurative infections, or may be part of a long-term treatment regimen.
- May be necessary if perforation or bowel obstruction occurs or disease is unresponsive to medical treatment.

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### NURSING DIAGNOSIS: Fluid Volume, risk for deficient

**Risk factors may include**

- Excessive losses through normal routes (severe frequent diarrhea, vomiting)
- Hypermetabolic state (inflammation, fever)
- Restricted intake (nausea/anorexia)

**Possibly evidenced by**

[Not applicable; presence of signs and symptoms establishes an actual diagnosis.]

### DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:

**Hydration (NOC)**

Maintain adequate fluid volume as evidenced by moist mucous membranes, good skin turgor, and capillary refill; stable vital signs; balanced I&O with urine of normal concentration/amount.

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### ACTIONS/INTERVENTIONS

#### Fluid/Electrolyte Management (NIC)

**Independent**

- Monitor I&O. Note number, character, and amount of stools; estimate insensible fluid losses, e.g., diaphoresis. Measure urine specific gravity; observe for oliguria.
- Assess vital signs (BP, pulse, temperature).
- Observe for excessively dry skin and mucous membranes, decreased skin turgor, slowed capillary refill.

#### RATIONALE

- Provides information about overall fluid balance, renal function, and bowel disease control, as well as guidelines for fluid replacement.
- Hypotension (including postural), tachycardia, fever can indicate response to and/or effect of fluid loss.
- Indicates excessive fluid loss/resultant dehydration.
<table>
<thead>
<tr>
<th>ACTIONS/INTERVENTIONS</th>
<th>RATIONALE</th>
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<tbody>
<tr>
<td><strong>Fluid/Electrolyte Management (NIC)</strong></td>
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<tr>
<td><strong>Independent</strong></td>
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<tr>
<td>Weigh daily.</td>
<td>Indicator of overall fluid and nutritional status.</td>
</tr>
<tr>
<td>Maintain oral restrictions, bedrest; avoid exertion.</td>
<td>Colon is placed at rest for healing and to decrease intestinal fluid losses.</td>
</tr>
<tr>
<td>Observe for overt bleeding and test stool daily for occult blood.</td>
<td>Inadequate diet and decreased absorption may lead to vitamin K deficiency and defects in coagulation, potentiating risk of hemorrhage.</td>
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<tr>
<td>Note generalized muscle weakness or cardiac dysrhythmias.</td>
<td>Excessive intestinal loss may lead to electrolyte imbalance, e.g., potassium, which is necessary for proper skeletal and cardiac muscle function. Minor alterations in serum levels can result in profound and/or life-threatening symptoms.</td>
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<tr>
<td><strong>Collaborative</strong></td>
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<tr>
<td>Administer parenteral fluids, blood transfusions as indicated.</td>
<td>Maintenance of bowel rest requires alternative fluid replacement to correct losses/anemia. <em>Note:</em> Fluids containing sodium may be restricted in presence of regional enteritis.</td>
</tr>
<tr>
<td>Monitor laboratory studies, e.g., electrolytes (especially potassium, magnesium) and ABGs (acid-base balance).</td>
<td>Determines replacement needs and effectiveness of therapy.</td>
</tr>
<tr>
<td>Administer medications as indicated:</td>
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<tr>
<td>Antidiarrheal (Refer to ND: Diarrhea);</td>
<td>Reduces fluid losses from intestines.</td>
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<tr>
<td>Antiemetics, e.g., trimethobenzamide (Tigan), hydroxyzine (Vistaril), prochlorperazine (Compazine);</td>
<td>Used to control nausea/vomiting in acute exacerbations.</td>
</tr>
<tr>
<td>Antipyretics, e.g., acetaminophen (Tylenol);</td>
<td>Controls fever, reducing insensible losses.</td>
</tr>
<tr>
<td>Electrolytes, e.g., potassium supplement (KCl-IV; K-Lyte, Slow-K);</td>
<td>Electrolytes are lost in large amounts, especially in bowel with denuded, ulcerated areas, and diarrhea can also lead to metabolic acidosis through loss of bicarbonate (HCO₃).</td>
</tr>
<tr>
<td>Vitamin K (Mephyton).</td>
<td>Stimulates hepatic formation of prothrombin, stabilizing coagulation and reducing risk of hemorrhage.</td>
</tr>
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**NURSING DIAGNOSIS: Nutrition: imbalanced, less than body requirements**

**May be related to**
- Altered absorption of nutrients
- Hypermetabolic state
- Medically restricted intake; fear that eating may cause diarrhea

**Possibly evidenced by**
- Weight loss; decreased subcutaneous fat/muscle mass; poor muscle tone
- Hyperactive bowel sounds; steatorrhea
- Pale conjunctiva and mucous membranes
- Aversion to eating

**DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:**

**Nutritional Status (NOC)**
Demonstrate stable weight or progressive gain toward goal with normalization of laboratory values and absence of signs of malnutrition.

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**ACTIONS/INTERVENTIONS**

**Nutrition Therapy (NIC)**

**Independent**
- Weigh daily.
- Encourage bedrest and/or limited activity during acute phase of illness.
- Recommend rest before meals.
- Provide oral hygiene.
- Serve foods in well-ventilated, pleasant surroundings, with unhurried atmosphere, congenial company.
- Avoid/limit foods that might cause/exacerbate abdominal cramping, flatulence (e.g., milk products, foods high in fiber or fat, alcohol, caffeinated beverages, chocolate, peppermint, tomatoes, orange juice).
- Record intake and changes in symptomatology.
- Promote patient participation in dietary planning as possible.
- Encourage patient to verbalize feelings concerning resumption of diet.

**RATIONALE**
- Provides information about dietary needs/effectiveness of therapy.
- Decreasing metabolic needs aids in preventing caloric depletion and conserves energy.
- Quiets peristalsis and increases available energy for eating.
- A clean mouth can enhance the taste of food.
- Pleasant environment aids in reducing stress and is more conducive to eating.
- Individual tolerance varies, depending on stage of disease and area of bowel affected.
- Useful in identifying specific deficiencies and determining GI response to foods.
- Provides sense of control for patient and opportunity to select foods desired/enjoyed, which may increase intake.
- Hesitation to eat may be result of fear that food will cause exacerbation of symptoms.
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<tr>
<td><strong>Nutrition Therapy (NIC)</strong></td>
<td>Resting the bowel decreases peristalsis and diarrhea, limiting malabsorption/loss of nutrients.</td>
</tr>
<tr>
<td><strong>Collaborative</strong></td>
<td>Allows the intestinal tract to readjust to the digestive process. Protein is necessary for tissue healing integrity. Low bulk decreases peristaltic response to meal. Note: Dietary measures depend on patient’s condition, e.g., if disease is mild, patient may do well on low-residue, low-fat diet high in protein and calories with lactose restriction. In moderate disease, elemental enteral products may be given to provide nutrition without overstimulating the bowel. Patient with toxic colitis is NPO and placed on parenteral nutrition.</td>
</tr>
<tr>
<td>Keep patient NPO as indicated.</td>
<td>Many clinical studies have shown early enteral feeding is beneficial in reducing the effects of malabsorption and providing essential nutrients. Although elemental enteral solutions cannot provide all needed nutrients, they can prevent gut atrophy.</td>
</tr>
<tr>
<td>Resume/advance diet as indicated, e.g., clear liquids progressing to bland, low residue; then high-protein, high-calorie, caffeine-free, nonspicy, and low-fiber as indicated.</td>
<td>This regimen rests the GI tract completely while providing essential nutrients. Short-term TPN is indicated during periods of disease exacerbation when bowel rest is needed.</td>
</tr>
<tr>
<td>Provide nutritional support, e.g.:</td>
<td>Anticholinergics given 15–30 min before eating provide relief from cramping pain and diarrhea, decreasing gastric motility and enhancing time for absorption of nutrients.</td>
</tr>
<tr>
<td>- Enteral feedings, e.g., Ultra Clear Plus via NG, percutaneous endoscopic gastrostomy (PEG), or J-tube;</td>
<td>Prevents/treats anemia. Oral route for iron supplement is ineffective because of intestinal alterations that severely reduce absorption.</td>
</tr>
<tr>
<td>- Intravenous TPN.</td>
<td>Malabsorption of vitamin B₁₂ results from significant loss of functional ileum. Replacement of vitamin B₁₂ reverses bone marrow depression caused by prolonged inflammatory process, promoting RBC production/correction of anemia.</td>
</tr>
<tr>
<td>Administer medications as indicated, e.g.:</td>
<td>Folate deficiency is common in presence of Crohn’s disease because of decreased intake/absorption, effect of drug therapy sulfasalazine (Azulfidine).</td>
</tr>
<tr>
<td>- Belladonna alkaloids (Donnatal), butabarbital sodium with belladonna (Butibel); propantheline bromide (Pro-Banthine);</td>
<td>Promotes tissue healing/regeneration.</td>
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<td>- Iron (ImFeD/injectable);</td>
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<tr>
<td>- Vitamin B₁₂ (Crystamine, Rubesol);</td>
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<tr>
<td>- Folic acid (Folvite);</td>
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<tr>
<td>- Vitamin C (Ascorbicap).</td>
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</table>
NURSING DIAGNOSIS: Anxiety [specify level]
May be related to
Physiological factors/sympathetic stimulation (inflammatory process)
Threat to self-concept (perceived or actual)
Threat to/change in health status, socioeconomic status, role functioning, interaction patterns
Possibly evidenced by
Exacerbation of acute stage of disease
Increased tension, distress, apprehension
Expressed concern regarding changes in life
Somatic complaints
Focus on self

DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:
Anxiety Control (NOC)
Appear relaxed and report anxiety reduced to a manageable level.
Verbalize awareness of feelings of anxiety and healthy ways to deal with them.

ACTIONS/INTERVENTIONS
Anxiety Reduction (NIC)
Independent
Note behavioral clues, e.g., restlessness, irritability, withdrawal, lack of eye contact, demanding behavior.
Encourage verbalization of feelings. Provide feedback.
Acknowledge that the anxiety and problems are similar to those expressed by others. Active-listen patient’s concerns.
Provide accurate, concrete information about what is being done, e.g., reason for bedrest, restriction of oral intake, and procedures.
Provide a calm, restful environment.
Encourage staff/SO to project caring, concerned attitude.
Help patient identify/initiate positive coping behaviors used in the past.

RATIONALE
Indicators of degree of anxiety/stress, e.g., patient may feel out of control at home/work managing personal problems. Stress may develop as a result of physical symptoms of condition and the reaction of others.
Establishes a therapeutic relationship. Assists patient/SO in identifying problems causing stress. Patient with severe diarrhea may hesitate to ask for help for fear of becoming a burden to the staff.
Validation that feelings are normal can help reduce stress/isolation and belief that “I am the only one.”
Involving patient in plan of care provides sense of control and helps decrease anxiety.
Removing patient from outside stressors promotes relaxation; helps reduce anxiety.
A supportive manner can help patient feel less stressed, allowing energy to be directed toward healing/recovery.
Successful behaviors can be fostered in dealing with current problems/stress, enhancing patient’s sense of self-control.
### ACTIONS/INTERVENTIONS

**Anxiety Reduction (NIC)**

**Independent**
- Assist patient to learn new coping mechanisms, e.g., stress management techniques, organizational skills.

**Collaborative**
- Administer medications as indicated: Sedatives, e.g., barbiturates, phenobarbital (Luminal); antianxiety agents, e.g., diazepam (Valium).
- Refer to psychiatric clinical nurse specialist, social services, spiritual advisor.

### RATIONALE
- Learning new ways to cope can be helpful in reducing stress and anxiety, enhancing disease control.
- May be used to reduce anxiety and to facilitate rest, particularly in the patient with UC.
- May require additional assistance in regaining control and coping with acute episodes/exacerbations, as well as learning to deal with the chronicity and consequences of the disease and therapeutic regimen.

### NURSING DIAGNOSIS: Pain, acute

**May be related to**
- Hyperperistalsis, prolonged diarrhea, skin/tissue irritation, perirectal excoriation, fissures, fistulas

**Possibly evidenced by**
- Reports of colicky/cramping abdominal pain/referred pain
- Guarding/distraction behaviors, restlessness
- Facial mask of pain; self-focusing

### DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:

**Pain Level (NOC)**
- Report pain is relieved/controlled.
- Appear relaxed and able to sleep/rest appropriately.

### ACTIONS/INTERVENTIONS

**Pain Management (NIC)**

**Independent**
- Encourage patient to report pain.
- Assess reports of abdominal cramping or pain, noting location, duration, intensity (0–10 scale). Investigate and report changes in pain characteristics.
- Note nonverbal cues, e.g., restlessness, reluctance to move, abdominal guarding, withdrawal, and depression. Investigate discrepancies between verbal and nonverbal cues.

### RATIONALE
- May try to tolerate pain rather than request analgesics.
- Colicky intermittent pain occurs with Crohn’s disease Predefecation pain frequently occurs in UC with urgency, which may be severe and continuous. Changes in pain characteristics may indicate spread of disease/developing complications, e.g., bladder fistula, perforation, toxic megacolon.
- Body language/nonverbal cues may be both physiological and psychological and may be used in conjunction with verbal cues to determine extent/severity of the problem.
<table>
<thead>
<tr>
<th>ACTIONS/INTERVENTIONS</th>
<th>RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pain Management (NIC)</strong></td>
<td></td>
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<tr>
<td><strong>Independent</strong></td>
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<tr>
<td>Review factors that aggravate or alleviate pain.</td>
<td>May pinpoint precipitating or aggravating factors (such as stressful events, food intolerance) or identify developing complications.</td>
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<tr>
<td>Encourage patient to assume position of comfort, e.g.,</td>
<td>Reduces abdominal tension and promotes sense of control.</td>
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<tr>
<td>knees flexed.</td>
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<tr>
<td>Provide comfort measures (e.g., back rub, reposition) and</td>
<td>Promotes relaxation, refocuses attention, and may enhance coping abilities.</td>
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<td>diversional activities.</td>
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<tr>
<td>Cleanse rectal area with mild soap and water/wipes after</td>
<td>Protects skin from bowel acids, preventing excoriation.</td>
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<tr>
<td>each stool and provide skin care, e.g., A&amp;D ointment,</td>
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<tr>
<td>Sween ointment, karaya gel, Desitin, petroleum jelly.</td>
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<tr>
<td>Provide sitz bath as appropriate.</td>
<td>Enhances cleanliness and comfort in the presence of perianal irritation/fissures.</td>
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<tr>
<td>Observe for ischiorectal and perianal fistulas.</td>
<td>Fistulas may develop from erosion and weakening of intestinal bowel wall.</td>
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<td></td>
<td>May indicate developing intestinal obstruction from inflammation, edema, and scarring.</td>
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<tr>
<td>Observe/record abdominal distension, increased temperature,</td>
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<tr>
<td>decreased BP.</td>
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<tr>
<td><strong>Collaborative</strong></td>
<td></td>
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<tr>
<td>Implement prescribed dietary modifications, e.g.,</td>
<td>Complete bowel rest can reduce pain, cramping.</td>
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<tr>
<td>commence with liquids and increase to solid foods as</td>
<td></td>
</tr>
<tr>
<td>tolerated.</td>
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<tr>
<td>Administer medications as indicated, e.g.:</td>
<td>Pain varies from mild to severe and necessitates management to facilitate adequate rest and recovery. <em>Note: Opiates should be used with caution because they may precipitate toxic megacolon.</em></td>
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<tr>
<td>Analgesics;</td>
<td></td>
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<tr>
<td>Anticholinergics;</td>
<td>Relieve spasms of GI tract and resultant colicky pain.</td>
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<tr>
<td>Anodyne suppositories.</td>
<td>Relax rectal muscle, decreasing painful spasms.</td>
</tr>
</tbody>
</table>
**NURSING DIAGNOSIS:** Coping, ineffective  
**May be related to**  
- Multiple stressors, repeated over period of time; situational crisis  
- Unpredictable nature of disease process  
- Personal vulnerability; inadequate coping method; lack of support systems  
- Severe pain  
- Lack of sleep, rest  
**Possibly evidenced by**  
- Verbalization of inability to cope, discouragement, anxiety  
- Preoccupation with physical self, chronic worry, emotional tension, poor self-esteem  
- Depression and dependency  

**DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL:**  
**Coping (NOC)**  
- Assess the current situation accurately.  
- Identify ineffective coping behaviors and consequences.  
- Acknowledge own coping abilities.  
- Demonstrate necessary lifestyle changes to limit/prevent recurrent episodes.

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<td><strong>Coping Enhancement (NIC)</strong></td>
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<tr>
<td>Assess patient’s/SO’s understanding and previous methods of dealing with disease process.</td>
<td>Enables the nurse to deal more realistically with current problems. Anxiety and other problems may have interfered with previous health teaching/patient learning.</td>
</tr>
<tr>
<td>Determine outside stressors, e.g., family, relationships, social or work environment.</td>
<td>Stress can alter autonomic nervous response, affecting the immune system and contributing to exacerbation of disease. Even the goal of independence in the dependent patient can be an added stressor.</td>
</tr>
<tr>
<td>Provide opportunity for patient to discuss how illness has affected relationship, including sexual concerns.</td>
<td>Stressors of illness affect all areas of life, and patient may have difficulty coping with feelings of fatigue/pain in relation to relationship/sexual needs.</td>
</tr>
<tr>
<td>Help patient identify individually effective coping skills.</td>
<td>Use of previously successful behaviors can help patient deal with current situation/plan for future.</td>
</tr>
</tbody>
</table>
| Provide emotional support:  
  - Active-listen in a nonjudgmental manner; | Aids in communication and understanding patient’s viewpoint. Adds to patient’s feelings of self-worth. |
  - Maintain nonjudgmental body language when caring for patient; | Prevents reinforcing patient’s feelings of being a burden, e.g., frequent need to empty bedpan/commode. |
  - Assign same staff as much as possible. | Provides a more therapeutic environment and lessens the stress of constant adjustments. |
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<td><strong>Coping Enhancement (NIC)</strong></td>
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<tr>
<td><strong>Independent</strong></td>
<td>Exhaustion brought on by the disease tends to magnify problems, interfering with ability to cope.</td>
</tr>
<tr>
<td>Provide uninterrupted sleep/rest periods.</td>
<td>Refocuses attention, promotes relaxation, and enhances coping abilities.</td>
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<tr>
<td>Encourage use of stress management skills, e.g., relaxation techniques, visualization, guided imagery, deep-breathing exercises.</td>
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<tr>
<td><strong>Collaborative</strong></td>
<td></td>
</tr>
<tr>
<td>Include patient/SO in team conferences to develop individualized program.</td>
<td>Promotes continuity of care and enables patient/SO to feel a part of the plan, imparting a sense of control and increasing cooperation with therapeutic regimen.</td>
</tr>
<tr>
<td>Administer medications as indicated: antianxiety agents, e.g., lorazepam (Ativan), alprazolam (Xanax).</td>
<td>Aids in psychological/physical rest. Conserves energy and may strengthen coping abilities.</td>
</tr>
<tr>
<td>Refer to resources as indicated, e.g., local support group, social worker, psychiatric clinical nurse specialist, spiritual advisor.</td>
<td>Additional support and counseling can assist patient/SO in dealing with specific stress/problem areas.</td>
</tr>
</tbody>
</table>

**NURSING DIAGNOSIS: Knowledge, deficient [Learning Need] regarding condition, prognosis, treatment, self-care, and discharge needs**

**May be related to**
- Information misinterpretation, lack of recall
- Unfamiliarity with resources

**Possibly evidenced by**
- Questions, request for information, statements of misconceptions
- Inaccurate follow-through of instructions
- Development of preventable complications/exacerbations

**DESIRED OUTCOMES/EVALUATION CRITERIA—PATIENT WILL: Knowledge: Disease Process (NOC)**
- Verbalize understanding of disease processes, possible complications.
- Identify stress situations and specific action(s) to deal with them.

**Knowledge: Treatment Regimen (NOC)**
- Verbalize understanding of therapeutic regimen.
- Participate in treatment regimen.
- Initiate necessary lifestyle changes.
## ACTIONS/INTERVENTIONS

### Teaching: Disease Process (NIC)

#### Independent

- Determine patient’s perception of disease process.
- Review disease process, cause/effect relationship of factors that precipitate symptoms, and identify ways to reduce contributing factors. Encourage questions.
- Review medications, purpose, frequency, dosage, and possible side effects.
- Remind patient to observe for side effects if steroids are given on a long-term basis, e.g., ulcers, facial edema, muscle weakness.
- Stress importance of good skin care, e.g., proper handwashing techniques and perineal skin care.
- Recommend cessation of smoking.
- Emphasize need for long-term follow-up and periodic reevaluation.
- Identify appropriate community resources, e.g., Crohn’s and Colitis Foundation of America, (CCFA), United Ostomy Association, home healthcare providers/visiting nurse services, dietitian, and social services.

### RATIONALE

- Establishes knowledge base and provides some insight into individual learning needs.
- Precipitating/aggravating factors are individual; therefore, patient needs to be aware of what foods, fluids, and lifestyle factors can precipitate symptoms. Accurate knowledge base provides opportunity for patient to make informed decisions/choices about future and control of chronic disease. Although most patients know about their own disease process, they may have outdated information or misconceptions.
- Promotes understanding and may enhance cooperation with regimen.
- Steroids may be used to control inflammation and to effect a remission of the disease; however, drug may lower resistance to infection and cause fluid retention.
- Reduces spread of bacteria and risk of skin irritation/breakdown, infection.
- Can increase intestinal motility, aggravating symptoms.
- Patients with IBD are at increased risk for colon/rectal cancer, and regular diagnostic evaluations may be required.
- Patient may benefit from the services of these agencies in coping with chronicity of the disease and evaluating treatment options.

## POTENTIAL CONSIDERATIONS following acute hospitalization (dependent on patient’s age, physical condition/presence of complications, personal resources, and life responsibilities)

- Pain, acute—hyperperistalsis, prolonged diarrhea, skin/tissue irritation, perirectal excoriation, fissures, fistulas.
- Coping, ineffective—multiple stressors, repeated over period of time; unpredictable nature of disease process; personal vulnerability; severe pain; situational crisis.
- Infection, risk for—traumatized tissue, change in pH of secretions, altered peristalsis, suppressed inflammatory response, chronic disease, malnutrition.
- Therapeutic Regimen: ineffective management—complexity of therapeutic regimen, perceived benefit, powerlessness.