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### Ulcerative Colitis

Randy Kinietz

Otterbein University, kinietz1@otterbein.edu

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# Ulcerative Colitis

Randall Kinietz, BSN, RN, SRNA

Otterbein University, Westerville, Ohio

## Topic

Ulcerative Colitis (UC)

Chronic inflammatory disease of the large intestine, believed to be of autoimmune origin (Rubin et al., 2019)

## Prevalence

- More than one million people affected each year in the United States and Europe (Rubin et al., 2019)
- About 156 to 291 cases per 100,000 people each year in the United States (Ungaro et al., 2019)
- Main onset ages 15 to 30 years old (Ungaro et al., 2019)

## Signs & Symptoms

- Bloody diarrhea with or without mucus (Kayal & Shah, 2020)
- Tenesmus (Lynch & Hsu, 2021)
- Abdominal pain (McCance & Huether, 2018)
- Malaise (McCance & Huether, 2018)
- Weight loss (McCance & Huether, 2018)
- Fever, depending on severity (McCance & Huether, 2018)

## Pathophysiology

- "UC is a multifactorial disorder; genetic predisposition, epithelial barrier defects, dysregulated immune responses and environmental factors play a role in its pathogenesis" (Kaur & Goggolidou, 2020)
- Inflammation of the mucosal and submucosal layer of the colon and rectum (Kaur & Goggolidou, 2020)
- Loci found in the lamina propria contain genes involved in autophagy, microbe recognition, lymphocyte signaling, response to endoplasmic reticulum stress and cytokine signaling (Kaur & Goggolidou, 2020)
- These loci and the flora of the lamina propria have been found to trigger an overactive immune response in those that are susceptible, causing intestinal damage and inflammation (Kaur & Goggolidou, 2020)

## Risk Factors

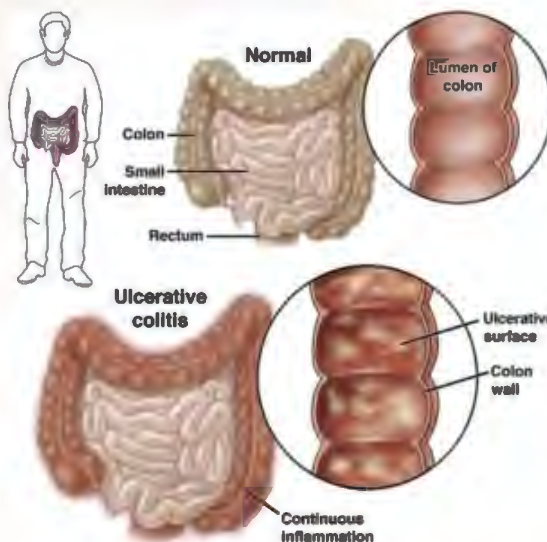
- Age (15-30) (Ungaro et al., 2019)
- Caucasian (Bye et al., 2017)
- Smoker (Tripathi & Feuerstein, 2019)
- Genetic predisposition/family history (Lynch & Hsu, 2021)
- Family history of cancer (Tripathi & Feuerstein, 2019)

## Implications for Nursing Care

- Monitor for adverse effects from medical therapy such as pancytopenia, fever, nausea/vomiting, and nutritional deficits (Lynch & Hsu, 2021)
- Thorough discharge instructions on new medications and the importance of follow-up colonoscopies for disease process monitoring (Lynch & Hsu, 2021)



(Rocky Mountain Gastroenterology, 2019)



(Jain, 2020)

## Management

- First line treatment of UC includes sulfasalazine and 5-aminosalicylates with the addition of oral or rectal glucocorticoids for those that do not experience remission within two to three weeks (Tripathi & Feuerstein, 2019)
- For cases refractory to glucocorticoids or for significant flares requiring hospitalization, the addition of anti-TNF-agents such as infliximab may be needed to control inflammation and reduce symptomology (Tripathi & Feuerstein, 2019)
- Partial or total colectomy may be needed on a case-to-case-basis (Gallo et al., 2018)
- Considerations for surgical management include (Gallo et al., 2018):
  - Failure of medical therapy
  - Strictures
  - Perforation
  - Toxic megacolon
  - Uncontrollable bleeding
  - Cancer

## References

