Case Scenario:

An 84- year-old -female who has a history of diverticular disease presents to the clinic with left lower quadrant (LLQ) pain of the abdomen that is accompanied by with constipation, nausea, vomiting and a low-grade fever (100.20 F) for 1 day.

On physical exam the patient appears unwell. She has signs of dehydration (pale mucosa, poor skin turgor with mild hypotension [90/60 mm Hg] and tachycardia [101 bpm]). The remainder of her exam is normal except for her abdomen where the NP notes a distended, round contour. Bowel sounds a faint and very hypoactive. She is tender to light palpation of the LLQ but without rebound tenderness. There is hyper-resonance of her abdomen to percussion.

The following diagnostics reveal:

Stool for occult blood is positive.

Flat plate abdominal x-ray demonstrates a bowel-gas pattern consistent with an ileus.

Abdominal CT scan with contrast shows no evidence of a mass or abscess. Small bowel in distended.

Based on the clinical presentation, physical exam and diagnostic findings, the patient is diagnosed with acute diverticulitis and she is admitted to the hospital. She is prescribed intravenous antibiotics and fluids (IVF). Her symptoms improved and she could tolerate a regular diet before she was discharged to home.

Discussion Questions:

1. Compare and contrast the pathophysiology between diverticular disease (diverticulosis) and diverticulitis.
2. Identify the clinical findings from the case that supports a diagnosis of acute diverticulitis.
3. List 3 risk factors for acute diverticulitis.
4. Discuss why antibiotics and IV fluids are indicated in this case.

1. Compare and contrast the pathophysiology between diverticular disease (diverticulosis) and diverticulitis.

a. Diverticulosis is described by the presence of sac-like protrusions, diverticula, which form when colonic mucosa and submucosa herniated through defects in the muscle layer of the colon wall. Diverticula are developed from age-related degeneration of the mucosal wall and segmental increcreses in colonic pressure resulting in the bulging at the weak points. The weak points in the colon wall is where arteries penetrate the tunica muscularis to nourish the mucosal layer, (McCance, K.L. & Huether, S.E., 2019). It can occur anywhere in the gastrointestinal tract, and most common in the left and right colon. Diverticulosis is an asymptomatic diverticular disease. Diverticulosis is more common in people over the age 60 years old. The rate of diverticulosis increases with age. It is also caused by a high-fat, low-fiber diet. The