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ELDER CARE

A Resource for Interprofessional Providers

Diarrhea and Fecal Incontinence

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DIARRHEA

Diarrhea is defined as an abnormal increase in stool liquidity, stool frequency (>3-5 stools per day), and stool weight (>200 grams per day). Diarrheal illness is one of the top 10 most common causes of death worldwide and one of the common infectious illnesses among elderly nursing home residents in the US.

Classification

Acute diarrhea is defined as diarrhea that resolves within 7-14 days. Chronic diarrhea is diarrhea lasting more than 3-4 weeks. Diarrhea is also classified by pathophysiologic mechanism and further classified by its cause. Common causes in older adults are discussed below.

Finally, diarrhea can be characterized with the Bristol Scale, which describes stool quality on a scale from 1 (separate hard lumps) to 7 (watery with no solid pieces). Scores of 5-7 indicate diarrhea. The scale is available at www.continence.org.au/pages/bristol-stool-chart.html.

No matter what the cause or classification, if associated with fever, dehydration, or weight loss, diarrhea can become life-threatening, particularly in frail older adults.

Common Causes in Older Adults

A wide variety of conditions can cause diarrhea in older adults. They range from common causes, like infection, to less common causes, like autoimmune and endocrine disorders.

Infectious Diarrhea typically has an abrupt onset. The etiology can be bacterial, viral, or parasitic. The infection may be acquired from other individuals, contaminated food or water, or during travel. In nursing homes, infectious diarrhea is highly likely when multiple individuals have diarrhea in close temporal proximity. While most diarrheal infections in older adults are viral, bloody diarrhea should raise concern about bacterial infection and appropriate microbiological studies should be obtained. If a patient was recently hospitalized or has been taking antibiotics, *C. difficile* is a possible cause and *C. diff* toxin assays should

be ordered.

Medications are another common cause of diarrhea. In some cases the offending medication is obvious, such as when patients are taking laxatives, magnesium-containing antacids, or antibiotics. Other medications notable for causing diarrhea in older adults are anticonvulsants, antipsychotics, and certain antineoplastic agents.

Fecal Impaction, paradoxically, can also cause diarrhea, with liquid feces leaking around the impacted stool. Impaction can be due to medications that reduce bowel motility. For example, medications (eg: opioids, antipsychotics, iron, calcium blockers), constipation due to hypothyroidism, inadequate fiber/fluid intake, neoplasms, strictures, or bowel motility disorders.

Osmotic Diarrhea occurs when there is ingestion of poorly absorbed solutes, leading to malabsorption. Examples include lactose intolerance, celiac disease, and pancreatic dysfunction.

Systemic Disorders can also cause diarrhea. Hyperthyroidism is one example. Other examples include inflammatory bowel disease (ulcerative colitis and Crohn's disease) While often associated with younger individuals, the prevalence of inflammatory bowel disease is increasing in older adults. And, as discussed below, cancer should also be in the differential diagnosis.

Diagnosis

Acute diarrhea is most often due to an infection or a newly prescribed medication and it can be evaluated as discussed above. The cause of chronic diarrhea, however, is not always obvious because symptoms of systemic disorders may be subtle in older adults, or because some patients may be unable to give a good history.

Patients with chronic diarrhea who have rectal bleeding, melena, progressive abdominal pain, unexplained weight loss, or other systemic symptoms may have colon cancer or inflammatory bowel disease (IBD). Assuming their overall health is such that diagnosis and treatment are

TIPS FOR DEALING WITH DIARRHEA AND FECAL INCONTINENCE IN OLDER ADULTS

- When older adults have diarrhea, start the evaluation by assessing for dehydration and hemodynamic instability.
- Do not use antidiarrheal medication if there is a possibility of *C. difficile*, *Salmonella* or *Shigella* infection.
- Always check for blood in the stool. Blood in the stool without acute bacterial infection is an indication for endoscopy.
- Always perform a rectal examination when evaluating patients with fecal incontinence.
- Habit training is useful for patients with fecal incontinence for which no reversible cause is identified, particularly for patients who have dementia.
- Skin protection with barrier creams is important for patients with fecal incontinence.

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appropriate, they should be referred to endoscopic evaluation.

Certain lab abnormalities should also prompt consideration of cancer or IBD. These include iron deficiency anemia, a positive fecal occult bleed test, an elevated erythrocyte sedimentation rate, or increased levels of C-reactive protein, or fecal calprotectin. Patients with any of these findings should be considered for endoscopic evaluation.

Other considerations in older adults with chronic diarrhea include a myriad of conditions. They include hyperthyroidism (including subclinical hyperthyroidism, which occurs in older adults), unreported or surreptitious laxative abuse (which can be detected with a fecal laxative assay), and osmotic diarrhea, which is diagnosed by measuring the stool osmotic gap (<https://www.mdcalc.com/stool-osmolar-osmotic-gap>); a gap >50 mEq/L suggests osmotic diarrhea.

Treatment

Regardless of the cause, the highest treatment priority is to correct fluid and electrolyte abnormalities. Parenteral fluid containing NaCl, KCl, and glucose are generally used. Commercially available oral rehydration solutions can be used if diarrhea/dehydration are not severe. Care should be taken, however, to avoid overhydration when parenteral fluids are used, particularly in patients with heart failure or renal dysfunction.

Underlying causes should be treated when possible, such as administering antibiotics for *C. difficile* infection, steroids or aminosalicilate drugs (5-ASA) for inflammatory bowel disease, or a gluten free diet for celiac disease.

Symptomatic treatment may also be needed. Oral loperamide, bismuth subsalicylate, or cholestyramine may decrease diarrhea. They should be avoided, however in patients with bloody diarrhea or if *C. difficile* infection or ischemic colitis is suspected.

FECAL INCONTINENCE

Fecal incontinence is defined as the involuntary passage of solid or liquid feces. In elderly community dwelling patients, the prevalence is 17%, with higher rates in nursing home residents and hospitalized elderly. The true prevalence is likely even higher, however, due to reluctance of patients to report symptoms, mistaking fecal incontinence for diarrhea, as well as clinicians not asking about fecal incontinence during routine histories. Risk factors include prior episodes

of fecal incontinence, fecal urgency, diabetes mellitus, hormone therapy, and diarrhea.

Classification There are several types of fecal incontinence. Urge incontinence (urge to void with inability to get to the bathroom on time) is seen in conditions causing weakness of the external anal sphincter. Passive (stress) incontinence occurs in conditions causing weakness of the internal anal sphincter; fecal leakage can occur with coughing or sneezing. Overflow incontinence occurs when there is constipation or impaction; liquid stool builds up behind the obstructing feces and leaks around it.

Evaluation of fecal incontinence starts with a rectal exam to exclude fecal impaction and assess sphincter function, along with a neurological exam. Also take a medication history, as numerous medications can cause fecal incontinence (www.ncbi.nlm.nih.gov/books/NBK50674). If no cause is identified with history and physical, endoscopy to exclude colitis or cancer is an appropriate next step. Incontinence severity can be measured, and treatment effectiveness monitored, with the Wexner score www.mdcalc.com/wexner-score-obstructed-defecation-syndrome-ods.

Anorectal manometry, along with ultrasound and MRI, can identify defects in the internal and external sphincters. Defecography (x-ray imaging of the rectum and anus during defecation) should be performed in refractory cases to assess for enteroceles, rectoceles, and rectal prolapse.

Treatment can involve several approaches. After excluding reversible causes, you can consider habit training (regularly scheduled defecation), which is particularly useful for patients with dementia. For passive incontinence, consider physical therapy for pelvic floor muscle (sphincter) training, which can be aided by biofeedback. Skin protection with barrier creams should be considered for all patients.

Anti-diarrheals, like loperamide, bismuth subsalicylate, or cholestyramine, may reduce stool frequency and incontinence. Suppositories or enemas can be used in the case of overflow fecal incontinence due to constipation.

For selected patients, other treatments include anal plugs, injectable agents to bulk up the sphincters, application of radiofrequency energy that causes remodeling of the rectal mucosa, and surgery to repair rectal prolapse or sphincter damage.

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