

1. Briefly summarize the condition you selected and your rationale for selecting it.

The clinical practice guideline article by Chang et al (2023) defines constipation as a gastrointestinal tract disorder of gut-brain interaction and is associated with symptoms such as infrequent and incomplete defecation in the absence of mucosal or structural abnormalities.

It's a problem that affects everyone and does not discriminate in race, age, or gender. Constipation is a frequent problem that will often be seen by the future NP practice with diverse kinds of patients. To have the best outcome for patients an NP should be well-versed in all problems including constipation. Constipation can be a simple fix but can also lead to more serious issues and complications. Constipation affects 8-12% of the US population (Chang et al, 2023).

2. Describe the prescribing recommendations from the CPG and how these could impact pediatric, pregnant, and older adult populations considering pharmacokinetic principles.

The American Gastroenterological Association and American College of Gastroenterology completed the CPG article to inform clinicians and patients of a set of guidelines to follow in chronic idiopathic constipation. There are 10 recommendations listed with evidence-based practice articles to help in the decision of where to start. They recommend that the patient increase their fluid intake and overall daily fiber with bran and inulin as the first recommendation. They then recommend an osmotic laxative such as polyethylene glycol, magnesium oxide, and lactulose. These are recommendations two, three, and four. Each step moves forward when the previous one is unsuccessful. Recommendation 5 is the use of bisacodyl or sodium picosulphate for short-term use or rescue use combined with the recommendations listed previously.

Recommendation 6 is the use of senna for short-term use but does not specify for long term. However, the guidelines do state that there are no long-term safety studies in humans. They also specify that they do not recommend use in pregnant women due to senna being chemically similar to substances found to exert genotoxic effects in animals.

The next recommendation is the use of lubiprostone as a twice-a-day medication to increase GI transient and intestinal fluids. This recommendation is more efficient in individuals 65 and older. The eighth recommendation when the previous interventions do not work is to start the patient on linaclotide but due to its association with diarrhea, this leads to quick discontinuation. The ninth recommendation is the use of plecanatide, this medication also leads to diarrhea and quick discontinuation. The last recommendation is prucalopride, this medication is contraindicated in patients with intestinal perforation/obstructions, Crohn's, ulcerative colitis, and toxic megacolon. Recommendations seven through 10 can be used as a replacement or adjacent to other recommendations discussed in the clinical practice guidelines. Older adults are encouraged to follow through with these types of recommendations with the slowing down and physiological changes that come with age can help improve this populations incidents with constipation. As listed above, pregnant individuals are not encouraged to use senna but the article states that a recent publication has been released that discusses the safety of almost all these interventions. This article is limited in that the research provided was only conducted with individuals who were otherwise healthy. Pediatric, malignancy, and opioid-induced constipation patients were not