PASSION FOR PATIENTS

Written By: Britny Rogala, PharmD, BCOP
Brady Quinn, PharmD
University of Rhode Island College of Pharmacy

Positive Quality Intervention: Chemotherapy, Oncolytic, Antiemetic Induced Constipation

Description: Discuss prevention and management strategies for treatment related constipation.

Background: The utilization of proper diet, over-the-counter medications, and alternative prescriptions can be helpful for patients suffering from multisource drug induced constipation. Preventing this type of constipation requires less interventions than treating the symptoms once they occur.[1] Many chemotherapeutic medications, antiemetics, and pain regimens can commonly cause constipation (see supplemental information). Drug-induced constipation, often characterized by infrequent, hard, or difficult to pass bowel movements, can significantly impair quality of life or cause severe pain, rectal fissures, or bowel obstruction.[1-3]

PQI Process: Upon receipt of an oral chemotherapy agent with known constipation side effect:

- Be aware of common oncology medication that may cause constipation (see supplemental section)
- Consider scheduling a follow up phone call with patient within one week after initiation of therapy to assess if patient is experiencing constipation
  - Assess the cause of constipation (chemotherapy/antiemetic/opioid)
  - If opioid therapy is the cause of the constipation and significant effort to alleviate constipation has been made with no relief, consider prescription therapy (ex. methylnaltrexone, naloxegol)
    - See **Opioid Induced Constipation** PQI
  - If antiemetic therapy is the cause of constipation provide a prescription for a different type of antiemetic for chemotherapy induced nausea/vomiting (ex. prochlorperazine, metoclopramide)
    - See **Chemotherapy Induced Nausea Vomiting** PQI

Patient-Centered Activities:

- Provide **Oral Chemotherapy Education (OCE)** Supplemental Sheet and counsel patient on constipation management with information on foods to eat to prevent the onset of constipation
- Provide stool softener and stimulant laxative to patient if patient reports signs of constipation (see supplemental information)
- Keep stool softener and stimulant laxative well stocked if patient experiences intermittent constipation
- Educate patients on different forms of laxatives (bulk forming, polyethylene glycol), if bowl movements do not become regular continue on OTC agents and advise patient to:
  - Try to find a diet and regimen that helps to keep bowel movements regular
  - Attempt to treat to regular bowel movement schedule
  - Keep track of how many bowel movements are made in a week
  - Drink plenty of low sugar fluids while taking laxative and stool softening medications
  - Contact clinic if there have been no bowel movement in 2 or more days
  - Have patient notify provider OTC medications that have been taken continuously for 7 days

References:

1. McQuade RM, Stojnovska V, Abalo R, Bomstein JC, Nurgali K. Chemotherapy-Induced Constipation and Diarrhea: Pathophysiology, Current and Emerging Treatments. Front Pharmacol. 2016;7:414.
2. Andrews CN, Storr M. The pathophysiology of chronic constipation. Can J Gastroenterol. 2011;25:16B-21B.
3. Kumar L, Barker C, Emmanuel A. Opioid-Induced Constipation: Pathophysiology, Clinical Consequences, and Management. Gastroenterology Research and Practice. 2014; https://doi.org/10.1155/2014/141737.

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Supplemental Information:
Oral chemotherapy agents that commonly cause constipation (>30%): alectinib, crizotinib, ponatinib, ixazomib, lenalidomide, niraparib, pomalidomide, rucaparib temozolomide, and thalidomide

Anti-emetics that commonly cause constipation: 5-HT_3 antagonists (ex. ondansetron)

Diet/Exercise

- Increase fiber intake; patients prone to small bowel obstruction (ex. abdominal surgery) should avoid additional fiber intake
  - Whole grains, brown rice, raw fruits and vegetables, etc.
- Drink plenty of low/sugar free fluids
  - 8-10 glasses of water, fruit/vegetable juices, decaffeinated teas
- Encourage physical activity

Drug Therapy
Osmotic Laxative

- Polyethylene Glycol (OTC/Rx)
  - Take 1 capful/packet/heaping tablespoon (17 g) of powder dissolved in 4-8 ounces of any beverage daily
  - Onset of action:12-72 hours

Stool softener

- **Docusate Sodium (OTC)**
  - Take 1 softgel (100 mg) up to 3 times per day in divided doses
  - Onset of action: 12-72 hours
  - Can take with in combination with a stimulant laxative for best results

Stimulant laxatives

- **Senna (OTC)**
  - Take 2 tablets (17.2 mg) as one dose once daily to start. If needed can take up to 4 tablets (34.4 mg) twice daily
  - Onset of action: 6-12 hours
- **Bisacodyl (OTC)**
  - Take 1 tablet (5 mg) once daily to start. If needed can take up to 3 tablets (15 mg) once daily
  - Onset of action: 6-12 hours

Prescription Options

- **Methylnaltrexone (Relistor®) (Rx)**
  - Used to treat opioid-induced constipation
  - Rule out GI obstruction (contraindicated)
  - Inject 1 prefilled syringe (dose may vary) subcutaneously up to every other day as needed
  - Rotate injection site between abdomen, thighs, and upper arms
  - Discontinue methylnaltrexone immediately if severe/persistent diarrhea/abdominal pain occurs
- **Naloxegol (Movantik®) (Rx)**
  - Used to treat opioid-induced constipation
  - Rule out GI obstruction (contraindicated)
  - Usual dose: take 1 tablet (25 mg) daily at least 1 hour before the first meal of the day (dose may differ due to tolerability)
  - Concomitant use with strong CYP3A4 inhibitors is not recommended
- **Lubiprostone (Amitiza®) (Rx)**
  - Used to treat opioid-induced constipation
  - Rule out GI obstruction (contraindicated)
  - Usual dose: take 24 mcg by mouth twice daily