Written By: Neal Dave, PharmD and Julianne Orr, PharmD
NCODA Spring Forum PQI Workshop

Positive Quality Intervention: Opioid Induced Constipation

Description of PQI: Discuss the prevention and management of opioid induced constipation.

Background: Constipation is a major side effect of opioid administration and should be assessed and managed by the healthcare team. In cancer patients receiving chronic opioid therapy, the prevalence of constipation can be as high as 60 to 90 %. Constipation is the most common manifestation of opioid induced bowel dysfunction (OBD) and typically occurs through activation of both peripheral and central opioid receptors. Opioid induced constipation (OIC) has the potential to affect patients' quality of life or lead to complications such as bowel obstruction or anorexia.

PQI Process: Once a prescription for an opioid is obtained:

- Assess the medications patients are currently taking
  - Look for causative medications in addition to opioids
  - If patient is already on an agent that is notorious for causing diarrhea, there may be no need for prevention of OIC
- Educate patient on opioid induced constipation
  - Symptoms of constipation
    - Straining
    - Lumpy or hard stools
    - Sensation of incomplete evacuation
- Educate patient on lifestyle changes
  - Increasing dietary fiber
  - Adequate fluid intake
  - Physical exercise
- Consider adding preventative agents:
  - Docusate/Senna: Two tablets (17.2 mg sennosides plus 100 mg docusate) by mouth once daily
    - Max dose of senna: 68.8 mg by mouth twice daily
  - Polyethylene Glycol: 17 g orally 4-8 oz of water daily
  - Lactulose: 30 mL by mouth daily (avoid in patients who are lactose intolerant)
- Pharmacologic options once preventative measures are ineffective, consider use with discretion as clinical efficacy varies:
  - Magnesium citrate: 195 – 300 mL by mouth given once or in divided doses
    - Consider milk of magnesia if citrate is unavailable
  - Methylnaltrexone (Relistor®):[3] Indicated for OIC in adults with chronic non-cancer pain, including patients with chronic pain related to prior cancer or its treatment who do not require frequent (e.g., weekly) opioid dosage escalation and OIC in adults with advanced illness or pain caused by active cancer who require opioid dosage escalation for palliative care
    - OIC in non-cancer pain patients
      - 450 mg by mouth once in the morning
      - 12 mg subcutaneously (SubQ) once daily
    - OIC with advanced illness
      - Administer 1 dose every other day SubQ as needed; maximum: 1 dose/24 hours
        - <38 kg: 0.15 mg/kg (round dose up to nearest 0.1 mL of volume)
        - 38 to <62 kg: 8 mg

        - 62 to 114 kg: 12 mg
        - >114 kg: 0.15 mg/kg (round dose up to nearest 0.1 mL of volume)
    - Naloxegol (Movantik®)[4]
        - 25 mg by mouth once daily
        - Can decrease to 12.5 mg if 25 mg not tolerated
    - Lubiprostone (Amitiza®)[5]
        - 24 mcg by mouth twice daily

Patient-Centered Activities:

- Provide **Oral Chemotherapy Education (OCE)** Supplemental Sheet
- Non-pharmacologic counseling
    - Increase low sugar fluids
        - Common recommendation for water consumption is eight 8-ounce glasses, which is about 2 liters (or a half gallon) per day
        - Caffeine can contribute to dehydration
    - Increase fiber
        - USDA fiber intake recommendation is between 25-38 g per day
    - Modifying diet
        - Eat several small meals throughout the day, rather than a few large ones
        - Avoid fatty, processed meats, and fast foods
        - Consuming natural laxatives
            - Prunes, apple cider, bran cereals, watermelon, rhubarb, etc.
    - Increase activity
        - Exercise can increase circulation, which can naturally accelerate movement of stool
    - Consider offering diet counseling books (ex. “Eating Well Through Cancer”)
    - Taking preventative agents daily
- Patient Medication Education
    - Review maximum daily doses of any agent the patient starts
    - Methylnalrexone (Relistor®) – ensure patient is aware that an instant bowel movement is possible after they receive their injection
    - Naloxegol (Movantik) – discontinue maintenance laxative therapy prior to starting
        - May add laxatives PRN if suboptimal response after 3 days

References:

1. Poulsen JL, Brock C, Olesen AE, Nilsson M, Drewes AM. Evolving paradigms in the treatment of opioid-induced bowel dysfunction. Therap Adv Gastroenterol. 2015 Nov;8(6):360-72. doi: 10.1177/1756283X15589526. PMID: 26557892; PMCID: PMC4622283.
2. Dhingra L, Barrett M, Knotkova H, Chen J, Riggs A, Lee B, Hiney B, McCarthy M, Portenoy R. Symptom Distress Among Diverse Patients Referred for Community-Based Palliative Care: Sociodemographic and Medical Correlates. J Pain Symptom Manage. 2018 Feb;55(2):290-296. doi: 10.1016/j.jpainsymman.2017.08.015. Epub 2017 Aug 26. PMID: 28844624.
3. Relistor® (methylnaltrexone) Prescribing Information.
4. Movantik® (naloxegol) Prescribing Information.
5. Amitiza (lubiprostone) Prescribing Information.