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A Comparison of Opioid-Induced Constipation Management Guidelines for Non-Cancer Patients in Acute Care Settings

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Introduction

- Opioid-induced constipation (OIC) is the most frequently reported and persistent of opioid side effects, affecting up to 90% of patients.[3,5]
- OIC negatively affects patients' satisfaction with their opioid regimen, reduces their ability to perform activities of daily living, and diminishes overall qualify of life.[1,5,6]
- Complications from OIC include bowel obstruction, bowel rupture, and death.[6]
- Patients often find the symptoms of OIC to be more troublesome than the pain for which they are taking an opioid.[5]

Background/Significance

- While opioids provide an analgesic effect when binding to mu-receptors in the central nervous system, binding of opioids to the mu-receptors in the gastrointestinal tract results in reduced peristalsis and water excretion, resulting in OIC.[1,5,6]
- Because the underlying cause of OIC is not targeted by traditional laxatives, OIC is often unresponsive to these treatments.[1,2,6]
- OIC can be exacerbated by interaction with other constipation causing pathophysiologies, lifestyle factors, and medications.[1,6]
- While functional constipation may be identified using the Rome III criteria, OIC may not be adequately assessed using these criteria.[1,3]

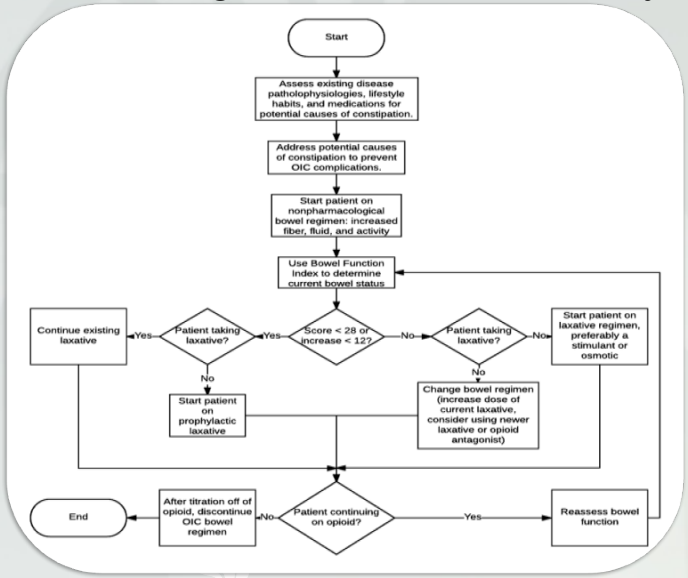
Clinical Question

Does integration of a standardized guideline to prevent and treat OIC improve patient outcomes over current practice?

Methods

- A search of the literature using CINAHL, PubMed, the Cochrane database, and National Guidelines Clearinghouse yielded 460 articles.
- Following a review of the abstracts of these articles, 86 were identified as being pertinent to this review, as these articles dealt specifically with the prevention and treatment of OIC. Of these 86 articles, a full review of the text revealed 26 articles that best addressed the issue of OIC assessment and treatment.

OIC Management Clinical Pathway



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Synthesis of Evidence

- OIC has been defined as symptoms following the initiation of an opioid regimen that consist of reduced frequency of bowel movements (BMs), increased straining with BMs, a sense of incomplete evacuations of the rectum, or harder BM consistency.[1,3,5]
- Prior to starting an OIC management regimen, other causes of constipation—pathophysiologies, lifestyle factors, and medications—must be identified and treated.[1,6]
- The Bowel Function Index (BFI) assesses three different dimensions on a scale of 0-100: (1) ease of dedication, (2) feeling of incomplete bowel evacuation, and (3) patient's judgment of constipation.[1,6]
  - Score < 28 is considered normal
  - Change in score of > 12 should is considered clinically significant.
- Nonpharmacological treatments (e.g., increased fiber, activity, and fluid intake) make help address underlying causes of constipation, but have not demonstrated effectiveness when used alone to treat OIC.[1,5]
- First line pharmacological treatment are prophylactic laxatives, with some support for stimulant and osmotic laxatives over bulk forming and stool softeners.[4,5,6]
- Strong evidence supports the use of newer laxatives (e.g., lubiprostone) as well as medications that directly counteract the binding of opioids to mu-receptors (e.g., methylnaltrexone and naloxegol), particularly when treating laxative-resistant OIC.[5,6]

Implications

- Identify and treat non-opioid causes of constipation to prevent OIC complications.
- Use the BFI to assess initial bowel function (normal < 28) and the need for changes to bowel regimen (change in score >12).
- Initiate a nonpharmacological regimen consisting of increases in dietary fiber, fluid, and activity to address compounding factors that may worsen OIC.
- Initiate a prophylactic laxative, with a preference for a stimulant and/or osmotic, and use one of the newer types of laxative or opioid antagonist to treat laxative-resistant OIC.