



Topical review

Definition, diagnosis and treatment strategies for opioid-induced bowel dysfunction—Recommendations of the Nordic Working Group



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HIGHLIGHTS

- Opioid-induced bowel dysfunction and constipation (OIC) are underdiagnosed and undertreated.
- Pain management and quality of life in chronic pain patients is reduced by OIC.
- Conventional laxatives have limited effects on OIC and may cause adverse effects.
- Peripherally-acting opioid antagonists that do not enter the brain are effective against OIC without major adverse effects.
- An evidence-based practice guideline for OIC based on the GRADE-method is proposed.

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ABSTRACT

Background and aims: Opioid-induced bowel dysfunction (OIBD) is an increasing problem due to the common use of opioids for pain worldwide. It manifests with different symptoms, such as dry mouth, gastro-oesophageal reflux, vomiting, bloating, abdominal pain, anorexia, hard stools, constipation and incomplete evacuation. Opioid-induced constipation (OIC) is one of its many symptoms and probably the most prevalent. The current review describes the pathophysiology, clinical implications and treatment of OIBD.

Methods: The Nordic Working Group was formed to provide input for Scandinavian specialists in multiple, relevant areas. Seven main topics with associated statements were defined. The working plan provided a structured format for systematic reviews and included instructions on how to evaluate the level of evidence according to the GRADE guidelines. The quality of evidence supporting the different statements was rated as high, moderate or low. At a second meeting, the group discussed and voted on each section with recommendations (weak and strong) for the statements.

Results: The literature review supported the fact that opioid receptors are expressed throughout the gastrointestinal tract. When blocked by exogenous opioids, there are changes in motility, secretion and absorption of fluids, and sphincter function that are reflected in clinical symptoms. The group supported a recent consensus statement for OIC, which takes into account the change in bowel habits for at least one week rather than focusing on the frequency of bowel movements. Many patients with pain receive opioid therapy and concomitant constipation is associated with increased morbidity and utilization of healthcare resources. Opioid treatment for acute postoperative pain will prolong the postoperative ileus

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and should also be considered in this context. There are no available tools to assess OIBD, but many rating scales have been developed to assess constipation, and a few specifically address OIC. A clinical treatment strategy for OIBD/OIC was proposed and presented in a flowchart. First-line treatment of OIC is conventional laxatives, lifestyle changes, tapering the opioid dosage and alternative analgesics. Whilst opioid rotation may also improve symptoms, these remain unalleviated in a substantial proportion of patients. Should conventional treatment fail, mechanism-based treatment with opioid antagonists should be considered, and they show advantages over laxatives. It should not be overlooked that many reasons for constipation other than OIBD exist, which should be taken into consideration in the individual patient.

Conclusion and implications: It is the belief of this Nordic Working Group that increased awareness of adverse effects and OIBD, particularly OIC, will lead to better pain treatment in patients on opioid therapy. Subsequently, optimised therapy will improve quality of life and, from a socio-economic perspective, may also reduce costs associated with hospitalisation, sick leave and early retirement in these patients.

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1. Introduction and methods

This review summarizes the consensus recommendations of the multidisciplinary Nordic Working Group on the clinical care of patients with opioid-induced bowel dysfunction (OIBD) and particularly opioid-induced constipation (OIC). Opioid-induced bowel dysfunction is a pharmacologically induced condition, which manifests with different symptoms, such as dry mouth, gastro-oesophageal reflux, vomiting, bloating, abdominal pain, anorexia, hard stools, constipation and incomplete evacuation [1,2]. Opioid-induced constipation is one of the many symptoms of OIBD and probably the most prevalent and bothersome symptom. Since opioids affect the enteric nervous system throughout the gut, OIBD is the most appropriate term, although for practical and traditional reasons most studies have focused on OIC.

The aim of the current work was to evaluate the available literature on the definition, diagnosis and management of OIBD/OIC using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) method (http://www.gradeworkinggroup.org/publications/JCE_series.htm) to aid Nordic healthcare personnel to expand their understanding of OIBD/OIC. The group was formed to provide multidisciplinary expert input for the report and included Scandinavian specialists in different relevant areas. Six members of the Nordic Working Group (AMD, PM, MS, HB, UK, JGH) formed the Steering Committee and, after an opening meeting, wrote the initial manuscript over a six-month period and proposed seven main topics with associated statements. The working plan provided a structured format for systematic reviews, and included instructions on how to evaluate the level of evidence and clinical implications according to

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