



Treatment of opioid-induced constipation in cancer patients: a systematic review and meta-analysis

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Background

- Cancer-related pain often requires opioid treatment, with opioid-induced constipation (OIC) as a prevalent gastrointestinal side-effect.
- For first-line treatment of OIC laxatives are available, whereas peripherally acting μ -opioid receptor antagonists (e.g. methylnaltrexone, naldemedine) and naloxone in a fixed combination with oxycodone are available for second-line treatment.
- **Aim:** to summarize the scientific evidence on pharmacological strategies for the treatment of OIC in cancer patients.

Methods

- A systematic search in PubMed, Embase, Web of Science and the Cochrane Library was completed up to 22 October 2022.
- Both randomized and non-randomized studies with OIC and adverse events as an outcome.
- Studies with opioid antagonists were used for a meta-analysis.

Conclusions

- Naldemedine, methylnaltrexone and a fixed combination of naloxone with oxycodone effectively treat OIC in cancer patients.
- However, their effect has not been compared to first-line laxatives.
- More studies comparing laxatives with each other and with opioid antagonists are necessary before recommendations for clinical practice can be made.

Results



12 trials
(10 RCTs, 2 cohort studies)



1473 patients



No significant differences between sennosides and polyethylene glycol and sennosides with docusate, respectively.

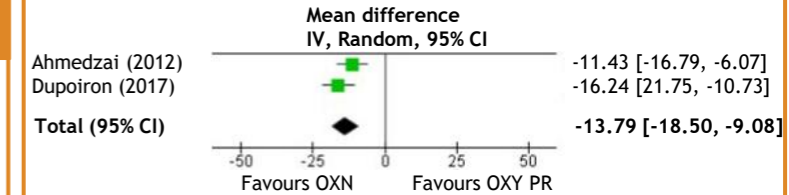


Figure 1. Forest plot of the difference in change in Bowel Function Index between oxycodone/naloxone en oxycodone prolonged release (PR).

Abbreviations: OXN: oxycodone/naloxone; OXY PR: oxycodone prolonged release.

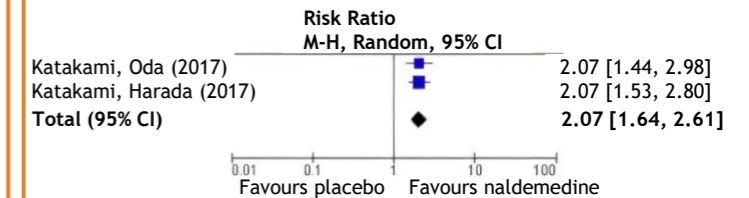


Figure 2. Forest plot demonstrating the response rate of naldemedine 0.2 mg compared to placebo.

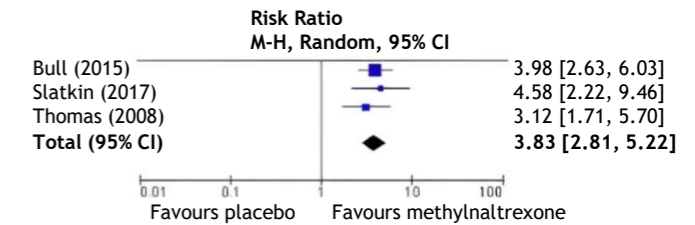


Figure 3. Forest plot demonstrating the response rate of methylnaltrexone compared to placebo.

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