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Prophylactic metoclopramide for opioid induced nausea and vomiting following treatment of acute pain in the prehospital setting

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Background

Opioids are highly effective analgesics often administered for the emergency treatment of acute pain. When administered for acute pain, analgesics aide in patient management by improving tolerance of, and compliance with, therapeutic manoeuvres such as extrications from car wreckage, administration of oxygen, and application of splints.**[1]** Nausea and vomiting occur in up to one third of patients receiving morphine.**[3]** The act of vomiting can increase intracranial pressure, increase the risk of further damage to patients with ocular injuries and abdominal wounds, and impact on vagal stimulation causing changes in blood pressure and pulse rate. The powerful muscular contractions associated with vomiting can cause further damage in specific instances of acute pain. Vomiting can also cause dehydration and the regurgitation of stomach contents, leading to risks of respiratory obstruction, pulmonary inflammation and aspiration pneumonia. Opioid induced nausea may be exacerbated by stimulation of the vestibular apparatus, contributing to a higher incidence of vomiting during ambulance transportation. Prophylactic administration of metoclopramide for patients receiving opioid pain relief may reduce the incidence of nausea and vomiting in the ambulance.

Data Source

The Cochrane Library 2004, Issue 2

Search Terms

Prehospital Search Filter Version 1.0
Metoclopramide, Maxolon, Pramin, anti-emetic, antiemetic, opioid, narcotic, analgesic, pain**[5]**

Search Results

Protocols
"Prophylactic anti-emetic therapy to prevent opioid induced nausea and vomiting following treatment of acute pain in the hospital emergency department and ambulance paramedic setting". Smith E, Boyle M, Wasiak J. Cochrane Library. In press 2004

Systematic Reviews
None

Controlled Clinical Trials
None

Commentary

No studies in the Cochrane Library have assessed the benefit of prehospital prophylactic administration of metoclopramide with opioid analgesia. Two studies however examined metoclopramide for this purpose

in the hospital emergency department setting.**[2,4]** Neither study reported a significant change in the rate of nausea and vomiting in patients given metoclopramide compared to a placebo.

The Bottom Line

There is no evidence in the Cochrane Library addressing the prophylactic administration of metoclopramide with opioid analgesic in the prehospital care setting.

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