

Paramedic CAT (Critically Appraised Topic) Worksheet

Title: Treating nausea in the pre-hospital setting, Zofran vs. Gravol

Report by: Kendra MacKenzie

2nd Party Appraiser: Jen Greene

Clinical Scenario:

Paramedics respond for a 35 year old female who is complaining of severe nausea and vomiting. The patient is unable to move without becoming sick. Her vitals are all stable and she has no allergies. The paramedics give the patient Zofran to help the nausea.

PICO (Population – Intervention – Comparison – Outcome) Question :

In patients experiencing nausea, does administration of Zofran vs. Gravol reduce nausea?

Search Strategy: (prehospital) and (nausea) and (Gravol) or (Zofran) Limit: last 5 years

Search Outcome: 480 results

Relevant Papers:

| AUTHOR, DATE | POPULATION: SAMPLE CHARACTERISTICS | DESIGN (LOE) | OUTCOMES | RESULTS | STRENGTHS/ WEAKNESSES |
|-----------------------------------|--|----------------------------|---|---|---|
| Salvucci A., 2010 | 2,072 Patients in the pre-hospital setting with nausea | Prospective Study LOE 2 | 1- Change in nausea without adverse effects 2- Adverse effects from the drug | 2,053 had an improvement without adverse effects 8 patients 0.4% had an adverse reaction | Looked at all routes given (IV, IM, ODT) Used a large number of patients to conduct the study Weaknesses- No placebo or control group used Time of administration of drug and time of nausea scale measurements were not recorded |

Comments: IV Ondansetron was the most successful route of administration

It worked very well in treating nausea in the pre-hospital setting

Side effects were minimal (minor hypotension or hypertension or itching/rash)

Consider: Why would you NOT change practice, based on this article?

In reference to the original question there was not enough studies done to distinguish which medication would work better in the pre-hospital setting. Ondansetron and Gravol both appear effective in the pre-hospital setting. Even with the evidence available proving that Ondansetron is successful in the pre-hospital setting without further testing comparing the two medications I would not change the local protocol.

Clinical Bottom Line:

With the data shown, it is worth while doing more research on the use of Ondansetron in the pre-hospital field to treat patients with nausea.

Referneces:

[Angelo A. Salvucci, MD, Benjamin Squire, MD, MPH, Marc Burdick, BS, MICP, Mark Luoto, MD, David Brazzel, MD, Reza Vaezazizi, MD](#) (2010) Ondansetron Is Safe and Effective for Prehospital Treatment of Nausea and Vomiting by Paramedics, Prehospital Emergency Care, January-March 2011, Vol. 15, No. 1 , Pages 34-38