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## Letters to the Editor

**PREOPERATIVE IMAGING  
DOES NOT PREDICT RUPTURE IN  
ACUTE APPENDICITIS**



**To the Editor:**

We read with interest the article by Bonadio et al. in the July 2015 issue of the *Journal* (1). Using their institutional data, the authors investigated the impact of timing to appendectomy on perforation rates in pediatric appendicitis, concluding that a delay of >9 h in previous computed tomography (CT)-confirmed nonperforated appendicitis led to a higher rate of perforation.

While we applaud the authors' attempt to determine the timing to surgery of an otherwise prevalent condition in children and an outcome with significantly worse morbidity, the methodology contains some fundamental flaws. The use of CT scan as a predictor of appendiceal perforation is highly misleading. The 2006 Bixby et al. study quoted by the authors concluded that multidetector CT imaging had very poor sensitivity for perforated appendicitis (2). In 2010, Fraser et al. found that the positive predictive accuracy of detecting appendiceal perforation by CT scan was 67% based on the review of 200 CT scans obtained for appendicitis (3). The study concluded that the triage of patients based on preoperative CT scans was highly imprudent.

The authors also concluded that the use of antibiotics did not prevent progression of appendicitis, with rates of perforation as high as 41% within 24 h! This finding contradicts research studies, including well-conducted prospective, randomized trials on the role of antibiotics in the treatment of uncomplicated appendicitis (4,5). This brings into question the validity of the initial CT assessment or the efficacy of the antibiotic regimen at the authors' institution. The supposition that the appendix perforated within 24 h despite adequate antibiotics is therefore misleading and inaccurate.

While important factors can potentially contribute to children presenting with appendiceal perforation (including younger age and duration of symptoms), it is erroneous to conclude that a >9 h duration before operative intervention increases the rate of perforation without the backing of a well-conducted randomized clinical trial.

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**OLIGOANTIEMESIS: A  
PREMATURE NEOLOGISM FOR  
AN INTERVENTION  
INSUFFICIENTLY  
SUBSTANTIATED IN THE  
EMERGENCY SETTING**



**To the Editor:**

We commend Dr. Singer and colleagues for their excellent description of the prevalence and patterns of antiemetic use in emergency medicine in the United States (1). Their intriguing finding that a sizable proportion of patients with nausea or vomiting did not receive an antiemetic agent in their academic emergency department (ED) is validated by the similar results they report from the United States National Hospital Ambulatory Care Survey. They also observed that antiemetics were administered twice as often for ED patients with vomiting than

for those with isolated nausea, which is consistent with physician survey data from Australia (2).

The authors believe the failure to provide antiemetics to a large proportion of ED patients with nausea or vomiting is a shortcoming of patient care, akin to the inadequate treatment of pain. To evoke this association with oligoanalgesia, they coined a similar term, *oligoantiemesis*, around which the emergency care community can rally its efforts to increase the administration of antiemetics.

In exploring possible reasons for the “inadequate” use of antiemetics, Singer et al. suggest that some practitioners may not be convinced of the efficacy of antiemetic agents in the ED. We are among the unconvinced. Why? Evidence strongly supports the use of antiemetics in the management of nausea and vomiting in other populations and settings, for example, chemotherapy-induced nausea and vomiting (3). But efficacy in one population does not guarantee efficacy in another. In fact, in the ED, where people with undifferentiated nausea and vomiting most often receive diagnoses of nonspecific abdominal pain or presumed gastroenteritis, evidence to support antiemetic efficacy is lacking.

One recent randomized trial found that ondansetron and metoclopramide were no better than placebo in emergency patients with a chief complaint of nausea or vomiting (4). Singer et al. cite this study, but then minimize it and the concurring literature with the following disclaimer: “many of the previous studies may have used suboptimal drug doses, and many of the effects of the antiemetics may have been masked by the simultaneous administration of intravenous fluids. Yet other studies failed to include placebo as a control” (1). If that is the case, rather than push for more antiemetic use at this time, the authors should encourage more research, designed to meet their quality standards. If positive, claims of ED antiemetic efficacy and calls for increased drug usage would then be on more solid footing.

The evidence, however, that questions the efficacy of antiemetics in the treatment of undifferentiated ED nausea and vomiting may not be as tenuous as these authors suggest. Several of us have coauthored a recent systematic review with the Cochrane database identifying eight randomized trials of drugs in the treatment of nausea and vomiting among adults in the ED (5). After describing the studies’ methods and results, we concluded that “there is no definite evidence to support the superiority of any one drug over any other drug, or the superiority of any drug over placebo.” In light of this, we suggested that “general supportive treatment such as intravenous fluids may be sufficient for the majority of people” (5). Forgoing ineffective medications has the additional benefits of avoiding drug toxicities and side effects and better stewarding of our health care resources.

We do agree with Singer et al. that nausea and vomiting are serious complaints and that they should not be dismissed. But we are hesitant to rally around the concept of “oligoantiemesis” until evidence is forthcoming that “antiemetics” (the pharmaceutical category) live up to their name as true *anti*-emetics (the functional category) among ED patients with undifferentiated nausea or vomiting. For now, at least, we think “oligoantiemesis” is a premature neologism for an intervention that in this population is insufficiently substantiated.

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## REPLY TO VINSON ET AL.



We appreciate the comments by Vinson et al. and agree with their assessment that “there is no definite evidence to support the superiority of any one drug over any other drug, or the superiority of any drug over placebo.” However, the studies comparing antiemetic agents with placebo in the absence of concomitant intravenous fluids are relatively rare and underpowered. Indeed, most studies have consistently shown a greater reduction in nausea severity in patients receiving an antiemetic than a placebo, even though all 95% confidence intervals include zero. In addition, the placebo effect can be very powerful and should not be underappreciated. Regardless, a reasonable approach would be to ask patients presenting to the emergency department (ED) with nausea or vomiting whether they desire treatment to alleviate their symptoms and to start with intravenous hydration. If this is ineffective, consideration should be given to administering an antiemetic, even if it may only be effective in some patients. As noted by Vinson et al., more research is necessary to identify more effective methods of treating nausea and vomiting in ED patients. Recognizing

the presence of nausea and vomiting and the need for more effective treatments is the first step in adequately addressing this issue.

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## MODIFYING THE ONE-MINUTE PRECEPTOR MODEL FOR USE IN THE EMERGENCY DEPARTMENT WITH A CRITICALLY ILL PATIENT



### To the Editor:

Coming into the emergency department (ED) at the start of my shift yesterday, I noted a trauma patient with an actively bleeding head wound being wheeled into the trauma bays, an elderly female attempting to use bilevel positive airway pressure as treatment for her heart failure exacerbation, and a medical student standing in the hallway looking quite bored as she waited to present a patient to one of the two very busy residents. The student likely knew that her presentations on these critically ill patients would be delayed until after they were stabilized. Too often teaching gets put on the back burner in the ED, even when that ED is part of an academic medical center (1). In last month’s *Journal of Emergency Medicine*, Farrell et al. reported on implementing use of the One-Minute Preceptor (OMP) model in the ED in order to help alleviate this problem (2).

The OMP model in the inpatient or outpatient settings is an educational “Best Practice.” Yet, the ED environment presents unique challenges (3,4). For example, in the ED, there is a constant influx of patients, similar to a busy clinic, but many of those patients may present simultaneously and in critical condition with time-sensitive pathology. The OMP model, where the learner presents the patient to the preceptor away from the patient in a workroom might not be appropriate. The solution is to modify the OMP at the bedside with the learner focusing on the patient’s most acute problem, as opposed to merely making a general statement about what he or she thinks is going on with the patient.

For example, for an elderly female on warfarin who is presenting with altered mental status after a fall and is desaturating with a Glasgow Coma Scale score of 3, the most acute problem is the patient’s respiratory failure. You can now follow the rest of the OMP model with the main teaching point being