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Oligo-evidence for antiemetic efficacy in the emergency department



To the Editor:

We read with interest the study by Singer and colleagues of antiemetic administration to Emergency Department (ED) patients with a complaint of nausea or vomiting [1]. Despite nausea being such a common and distressing problem for ED patients, it remains under-studied. We commend Singer and his team for bringing needed research attention to this important topic [1,2].

This prospective observational study explored the relationship between a number of patient-related factors and the ED administration of antiemetics. Not surprisingly, patients who desired an antiemetic, or specifically requested one, were more likely to receive treatment. Those with higher nausea severity ratings and those who were vomiting were also more likely to receive antiemetics than those with more mild symptoms or nausea alone.

Overall, only 53% of patients with nausea or vomiting were treated during their ED stay with an antiemetic. This was noted to be consistent with a recent paper by the same authors in which a national U.S. database review found that only 56% of ED patients with nausea or vomiting were administered antiemetics [2]. These results are also consistent

with a large survey of Australasian emergency physicians that reported that when vomiting was present, 94% of physicians routinely prescribed antiemetics, but for nausea alone, only 49% did so [3]. While admitting that the reasons for the low prescription rate are unknown, the authors suggest some possibilities. These included physician lack of confidence in antiemetic efficacy, an explanation that is strongly supported by a recent Cochrane review. Analyzing the results from eight randomized trials of antiemetics in the emergency setting, the systematic review found no convincing evidence for the benefit of antiemetics over placebo [4].

It must be remembered that this study by Singer et al. was not a therapeutic trial, but the figure illustrating symptom improvement over time is particularly informative [1]. It shows that those patients who received no antiemetics improved in a parallel fashion to those who did. Such information is consistent with the findings of the aforementioned Cochrane review [4]. Despite this lack of evidence, the authors suggest that clinicians are remiss in not prescribing antiemetics more often, and, as in an earlier study, refer to this practice as “oligoantiemesis” [1,2]. We believe that both the push for an increase in routine ED antiemetic administration and the neologism itself are premature [5]. Current literature does not support increasing the use of drugs that to date have been shown to be no better than placebo. Instead of promoting antiemetic use, we would suggest continued research in this critical area.

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Presentation

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Antiemetic use in the ED: The authors respond



We appreciate the comments by Dr. Vinson who believes that the push for an increase in routine ED antiemetic administration and the use of the neologism “oligoantiemesis” itself is premature. While the evidence supporting the effectiveness of currently administered antiemetics in the ED is weak [1], this does not mean that we should not be studying the issue of inadequate management of nausea and vomiting.

The first step in addressing any clinical issue is recognizing its existence, which often requires giving it a name. Naming the phenomenon “oligoantiemesis” draws attention to the problem of inadequate relief of nausea and vomiting in ED patients, but does not necessarily indicate that we should be “pushing” more medications if they are no more effective than intravenous fluids. I believe that a stepped approach starting with adequate hydration (either intravenous or oral) followed by attempts to further alleviate suffering with the currently available antiemetics (even if less than ideal) in those patients not responding to hydration or those still unable to tolerate oral fluids after intravenous hydration, is warranted. Furthermore, the lack of a statistically meaningful difference between two groups of patients assigned to different treatments, does not always mean that no individual patients will gain benefit from a treatment. This forms the basis for the whole new field of precision medicine, in which therapies are specifically tailored based on individual patient characteristics (such as phenotype, proteomics, metabolomics or genomics) [2]. These same concepts are likely to play a greater role in emergency medicine in the near future [3]. An example of a patient phenotype that might be more likely to respond to traditional antiemetics in the ED may include those patients that do not respond to intravenous hydration alone.

While current treatments are not always effective, we hope that focusing on this issue will help stimulate further research into more effective and safe methods of alleviating nausea and vomiting in the ED (for example, aromatherapy) [4]. While often underappreciated, based on our survey, roughly 4 in 10 patients believe that nausea or vomiting causes more suffering than severe pain [5]. In an era of patient centered care shouldn't we be addressing the issues most important to our patients especially when effective evidence-based therapies are lacking?

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