Reviewer's report

Title: Anesthesiologists' practice patterns for treatment of postoperative nausea and vomiting in the ambulatory PACU

Version: 1 Date: 8 April 2006

Reviewer: Ashraf Habib

Reviewer's report:

General

This is an interesting survey covering the treatment of established postoperative nausea and vomiting (PONV), a topic that is not well studied. The survey highlights areas where further education of anesthesiologists is needed. Some limitations of the survey should be discussed (see specific comments)

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Materials and methods:

Page 6, physician sample: Why was the 2002 ASA directory used instead of the most current one since the study was done in 2004? Since this was a simple random sample, the most active list should have been used. Also how was the goal of 100 returned surveys calculated? Was a stamped self addressed envelope included or other strategies used to try to enhance the response rate?

Page 8, first line: It is preferable to attach the whole survey instrument as an appendix, rather than simply stating that it is available from the authors. Throughout the manuscript, the authors keep adding some extra pieces of information, e.g. the availability of preprinted PACU orders, but we do not know how these questions were asked and whether there are any other questions of interest that might have been asked.

Results:

Page 9, Third paragraph: How was the information about the use of non-pharmacologic techniques elicited? Did the authors ask specifically about the use of non-pharmacologic techniques? Again making the whole survey instrument available helps to address those issues.

Discussion:

Page 14, limitations: discuss the relatively small sample size. Also the authors should discuss non-response bias. While not significantly different from other national surveys of professional organizations, the response rate of 38 % is low, and the impact of this on the results should be discussed. Any attempt to improve the non-response rate should be discussed here (Todd M. Principles of successful sample surveys. Anesthesiology 2003; 99: 1251-2)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Background:

Line 3, reference 2: this refers to the anesthesiologists’ perspective rather than the patient perspective.

Discussion:

Page 12, third line from the end of the page: the reference should be number 26 and not number 24.

Page 13, first paragraph: IV fluid therapy was not studied for the treatment of PONV, reference 30 is a prophylaxis study. Also reference 34 refers to a prophylaxis meta-analysis and not treatment.

Discretionary Revisions (which the author can choose to ignore)

Abstract:

Results and conclusions: “Whereas few anesthesiologists would repeat......” : Indicating a percentage range would be preferable to “few”

Conclusions, line 2, “and also regardless of the number of prophylactic antiemetics given”: the whole point is that the prophylactic regimens, whether monotherapy or combination therapies, include a 5HT3 receptor antagonist. Therefore, this should be better stated as “and also following prophylactic regimens including a 5HT3 antagonist, regardless of the number of prophylactic antiemetics given” or something along those lines.

Materials and methods:

Page 7, second paragraph, line 3: “the four antiemetics chosen......... were intended to represent major receptor systems involved in the etiology of PONV”. I am not sure why the authors chose the combination of metoclopramide and droperidol, since both agents work on the dopaminergic receptors. Is it to give the responders the opportunity to choose an agent working on the cholinergic muscarinic receptor, or the histamine H1 receptor for treatment? This whole second paragraph should be better moved to the discussion section.

Results:

Page 9, first paragraph: did the authors attempt to resend the survey to non-responders in an attempt to increase the response rate? Did they include a prepaid self addressed envelope?

Page 9, last paragraph: was the 24 % the percentage of anesthesiologists who responded to the question about second choice if treatment fails? It will be interesting to report how many chose to give several doses of a 5-HT3 antagonist in PACU if the initial rescue failed.

Discussion:

Page 11, line 3, it would be clearer if the authors add: “This pattern holds true following PONV prophylaxis with a regimen including a 5-HT3 antagonist regardless of the number of prophylactic antiemetics received by the patient”.

Page 11, second paragraph: as the authors highlight, a wide variety of treatments are used reflecting
lack of information and/or knowledge. It would be interesting to compare the response of physicians in private practice versus those in academic institutions, since the sample of responders is almost evenly spread.

Page 11, Initial treatment: how was it elicited that 96 % preferred pharmacologic interventions? Was it because this was stated as their first line therapy or did the authors ask specifically about this?

Page 12, line 1: I am assuming that the authors mean that the redosing with a 5HT3 antagonist is following initial prophylaxis failure. I suggest changing “therapy” to “prophylaxis” for clarification if this is the case.

Page 14, conclusion: see my comments about the similar conclusion section in the abstract.

**What next?:** Accept after minor essential revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests