

Poor guideline adherence in prescribing PONV prophylaxis disclosed by anesthesia information system

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Background and Goal of Study: Recently, guidelines for the prevention of postoperative nausea and vomiting (PONV) have been developed.¹ Since suboptimal guideline adherence may affect the effectiveness of these guidelines, we studied the degree of guideline adherence in prescribing PONV prophylaxis at the time of the preoperative visit in a large community based teaching hospital from September 2005 until December 2005.

Materials and Methods: Medical information of all patients scheduled for elective surgery is routinely entered in the Anesthesia Information System (Metavision, *iMDsoft*, Tel Aviv, Israel). According to our PONV prevention guideline, patients were considered at high risk ($\geq 61\%$) for PONV and thus entitled to PONV prophylaxis based on the presence of at least three of the following risk factors: female gender, previous history of PONV or motion sickness, nonsmoker status, and anticipated use of postoperative opioids.² At the preoperative screening clinic, these high-risk patients were identified and the anesthesiologist was to prescribe PONV prophylaxis on the preoperative fact sheet. To quantify guideline adherence, we queried all patients that were entitled to PONV prophylaxis. We then queried to see if PONV prophylaxis was prescribed for these patients at the preoperative screening clinic.

Results and Discussions: In this period 2766 patients were scheduled for surgery. According to our PONV prevention guideline, we identified 472 patients with at least three risk factors for PONV, eligible for PONV prophylaxis. Only 167 / 472 (35 %) of these high risk PONV patients were ordered to receive prophylaxis for PONV at the time of their preoperative screening clinic visit.

Conclusion(s): PONV prevention guideline adherence can greatly be improved, since only a small proportion of patients at high risk for PONV are prescribed PONV prophylaxis. Since Anesthesia Information Systems allow for identification of patients that would benefit from a specific therapy, added functionality to these systems (e.g. decision support) may theoretically improve guideline adherence significantly.

References:

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