

# Clinical Study of Flumazenil Antagonizing Remimazolam on Nausea and Vomiting After Gynecologic Day Surgery [Letter]

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## Dear editor

We are writing to comment on the recently published article by Wei et al, titled “Clinical Study of Flumazenil Antagonizing Remimazolam on Nausea and Vomiting After Gynecologic Day Surgery”.<sup>1</sup> This study provides important insights into treating postoperative nausea and vomiting (PONV) in women undergoing gynecological day surgery, with a focus on the use of Flumazenil. In this study, flumazenil was used as an antagonist for remimazolam, and an increased incidence of PONV was observed in the group receiving flumazenil. This finding makes a significant contribution to the literature.

However, there are some points to consider in the study. The first of these are preoperative risk factors for PONV: female gender, opioid use, history of motion sickness and PONV, laparoscopic surgeries, and non-smoking status.<sup>2</sup> The authors did not provide information about the patients’ non-smoking status or their history of motion sickness or PONV. The study design should explicitly state the need to collect and analyze these variables to address the absence of such data. Additionally, discussing the potential impact of missing this data on the study’s findings will ensure a more careful interpretation of the results.

These critiques and suggestions will encourage more comprehensive data collection in future studies and enhance the research’s overall validity. Additionally, the lack of data on these preoperative risk factors makes it challenging to assess the effectiveness of Flumazenil in over PONV fully.

The second, the influence of hormonal fluctuations on the management of postoperative nausea and vomiting (PONV), is a crucial consideration. Research has demonstrated notable differences in PONV incidence between premenopausal and postmenopausal women, with premenopausal women experiencing higher rates and requiring more antiemetic treatments.<sup>3</sup> Additionally, the menstrual cycle phase plays a role, with lower PONV rates observed during the luteal phase compared to the follicular or ovulation phases.<sup>4</sup>

Given that the study population comprised women, analyzing hormonal status or menstrual cycle phases could yield more comprehensive insights. Tailoring anaesthesia and postoperative care to individual hormonal profiles could potentially enhance patient outcomes. The potential for personalized intervention strategies, such as using Flumazenil, is an exciting area for future research. Exploring whether the effectiveness of Flumazenil varies with hormonal changes could be an intriguing area for future research.

Thank you for considering our feedback. Incorporating hormonal assessments and risk factors into PONV studies could significantly enhance our ability to manage this challenging postoperative complication.

## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically

reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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## Disclosure

The authors report no conflicts of interest in this communication.

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