

The Efficacy of Amisulpride Injection in Postoperative Nausea Management

(South Zone)



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INTRODUCTION

Postoperative nausea and vomiting (PONV) is a significant concern in surgical practice, posing challenges to patient comfort, recovery, and overall satisfaction. This complication is not only distressing for patients but also has implications for healthcare systems, contributing to prolonged hospital stays and increased medical costs. In India, the prevalence of PONV can be particularly high, with studies indicating that up to 30% of patients may experience this condition following various types of surgical interventions (1, 2). Given the diverse range of surgeries performed across the country, from minor outpatient procedures to complex major surgeries, understanding and effectively managing PONV is crucial in enhancing patient care.

Several factors contribute to the risk of PONV. These include patient demographics such as age, gender, and medical history, as well as the specific anesthetic agents used and the nature of the surgical procedure itself. For instance, patients who are female, non-smokers, or have a prior history of PONV or motion sickness are often identified as being at higher risk (3). Additionally, surgical techniques involving opioid analgesics and general anesthesia have been associated with increased rates of PONV (4). The multifaceted nature of this complication necessitates a comprehensive approach to its management, tailored to individual patient needs and circumstances.

Current Management Strategies

Traditional management strategies for PONV include a combination of pharmacological and non-pharmacological approaches. The commonly used antiemetic agents include ondansetron, metoclopramide, and dexamethasone, among others. While these medications have proven effective for many patients, their use is not without limitations. Some patients may experience side effects, and others may not respond adequately to standard treatments (5, 6). This

variability in response underscores the need for alternative treatment options that can provide effective relief for a broader range of patients.

Amisulpride as a Potential Treatment

Amisulpride, an atypical antipsychotic medication primarily indicated for schizophrenia and depressive disorders, has garnered attention for its potential efficacy in managing PONV. Its mechanism of action involves selective antagonism of dopamine D2 and D3 receptors in the central nervous system, which may play a critical role in the emetic response (7, 8). Emerging clinical evidence suggests that amisulpride can effectively reduce the incidence of nausea and vomiting in postoperative patients, especially in those classified as high-risk for PONV due to their surgical and anesthetic profiles (9, 10).

The pharmacokinetics of amisulpride also offer advantages in clinical settings. The availability of amisulpride in injectable form allows for rapid administration, which can be particularly beneficial in the acute postoperative setting. This ability to provide quick relief aligns with the goals of enhancing patient comfort and facilitating smoother recoveries. However, despite the promising data, the adoption of amisulpride in routine clinical practice for PONV management in India remains limited.

RATIONALE OF THE STUDY

The need for effective antiemetic therapies in the postoperative setting is underscored by the high prevalence of PONV, which can affect up to 30% of surgical patients (1). PONV not only leads to increased patient discomfort but also prolongs hospital stays and raises healthcare costs, emphasizing the necessity for reliable treatment options. While current antiemetic therapies are effective for some patients, they may not suffice for all, revealing a significant gap in effective

management strategies. Amisulpride, a dopamine antagonist with unique pharmacological properties, presents a potential alternative for managing PONV, yet its familiarity and clinical application among practitioners remain limited.

Understanding clinicians' perceptions of Amisulpride's efficacy and safety is essential for enhancing clinical practices and informing future research. Gathering insights on its use can identify barriers to implementation and highlight areas for education and training. Moreover, this survey aims to improve postoperative care by assessing Amisulpride's role in managing PONV and enhancing patient outcomes. By addressing these gaps, we can foster a better understanding of Amisulpride, ultimately contributing to improved management of PONV and increased patient satisfaction in surgical settings.

STUDY OBJECTIVE

The primary objective of this study is to evaluate the awareness, efficacy, and clinical use of Amisulpride injection among healthcare professionals for managing postoperative nausea. Specific aims include:

- Assessing familiarity with Amisulpride injection among clinicians.
- Evaluating the perceived effectiveness of Amisulpride compared to other antiemetics.
- Understanding preferred dosing regimens and barriers to its use.
- Identifying factors influencing the recommendation of Amisulpride to colleagues.

METHODS

The study employed a survey-based method, utilizing a structured questionnaire distributed among healthcare professionals involved in the management of PONV. The aim was to gather data from south zone of india on the efficacy of amisulpride injection in PONV management. The methodology includes the following components:

Survey Design

- Clinician familiarity with amisulpride and its application in PONV management.
- Current prescribing patterns for amisulpride in postoperative care.
- Perceived effectiveness of amisulpride in alleviating PONV.
- Safety and side effects reported during its use.
- Patient demographics and characteristics influencing treatment decisions.

The questionnaire was reviewed and validated by experts in anesthesiology and postoperative care to ensure its relevance, accuracy, and comprehensiveness.

Participant Recruitment: The survey was distributed to a targeted sample of healthcare professionals from south zone of India, including anesthesiologists, surgeons, and nursing staff across multiple hospitals and surgical centers in India. Participants were selected based on their experience in managing PONV and their willingness to provide insights regarding the use of amisulpride in clinical practice.

Data Collection: Responses were collected through a booklet over a three-month period from south zone. The survey was designed to be user-friendly to encourage participation and maximize response rates. Data were anonymized to ensure confidentiality, thus promoting honest and unbiased feedback from participants.

The collected data were analyzed using quantitative methods to identify trends and patterns in prescribing practices, perceived effectiveness ratings, and safety concerns related to amisulpride. Descriptive statistics were employed to summarize the data, while comparative analyses were conducted to assess variations based on clinician specialty, patient demographics, and treatment settings.

Ethical Considerations: The study was conducted in accordance with ethical guidelines for research involving Informed consent was obtained from all participants clinicians for the study.

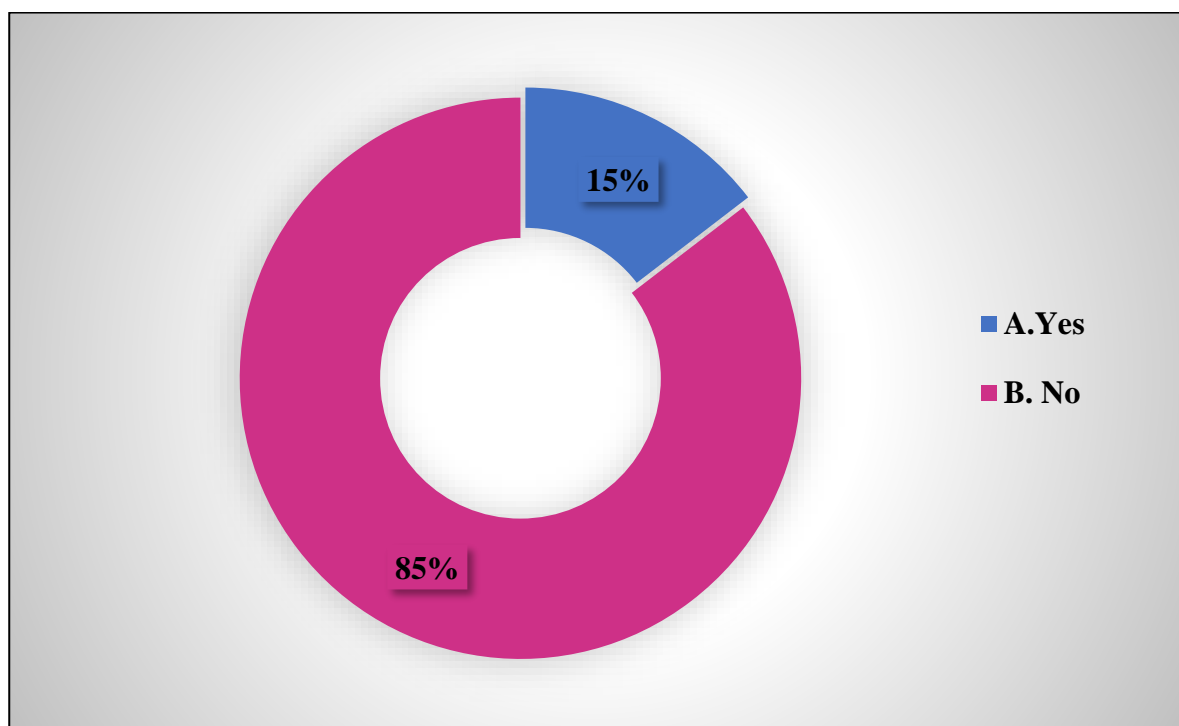
RESULTS

A total of 96 HCPs from south zone participated in the survey. Below is the summary of the responses.

1. Are you familiar with the use of Amisulpride Injection for the prevention and treatment of nausea and vomiting in surgical settings?

A. Yes

B. No

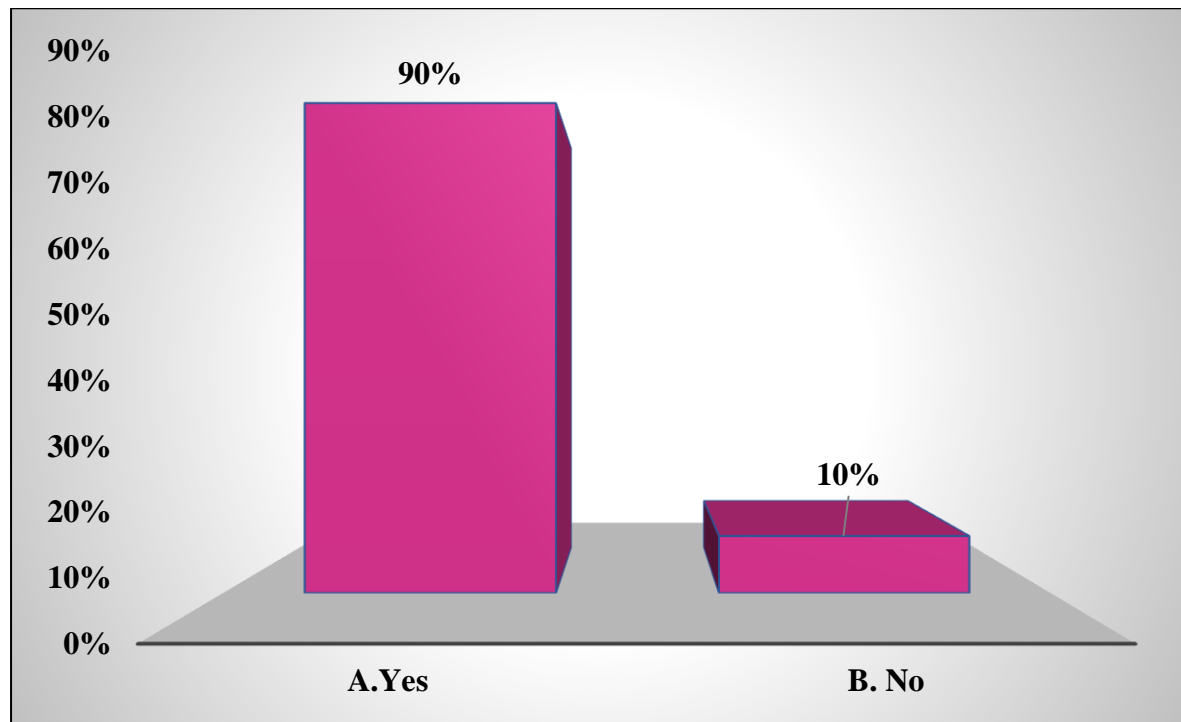


- **Yes (15%):** Only a small portion are aware of its use.
- **No (85%):** A significant majority are not familiar with Amisulpride for nausea management in surgical settings.

2. Do you believe that the currently available therapies are effective for prevention and management nausea and vomiting in clinical settings?

A. Yes

B. No

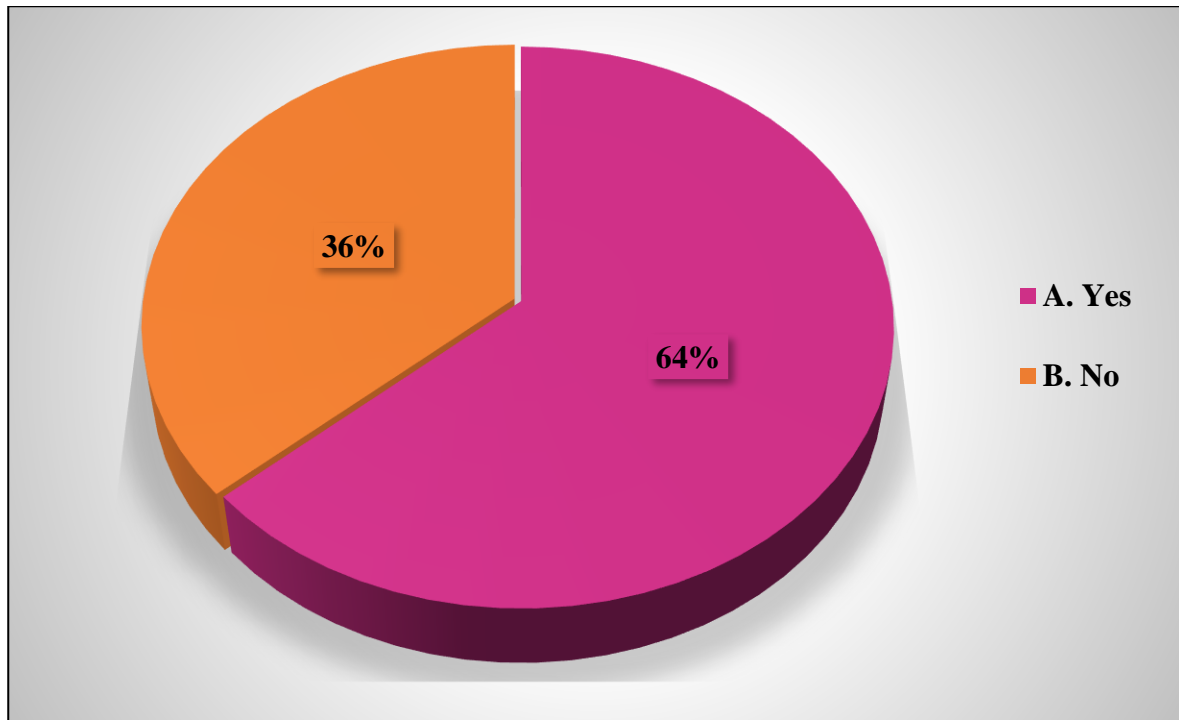


- **Yes (90%):** Almost all clinicians believe current therapies are effective for managing nausea and vomiting.
- **No (10%):** Very few doubt their effectiveness.

3. Do you agree that no single class of drug is effective in management of nausea and vomiting in surgical settings?

A. Yes

B. No

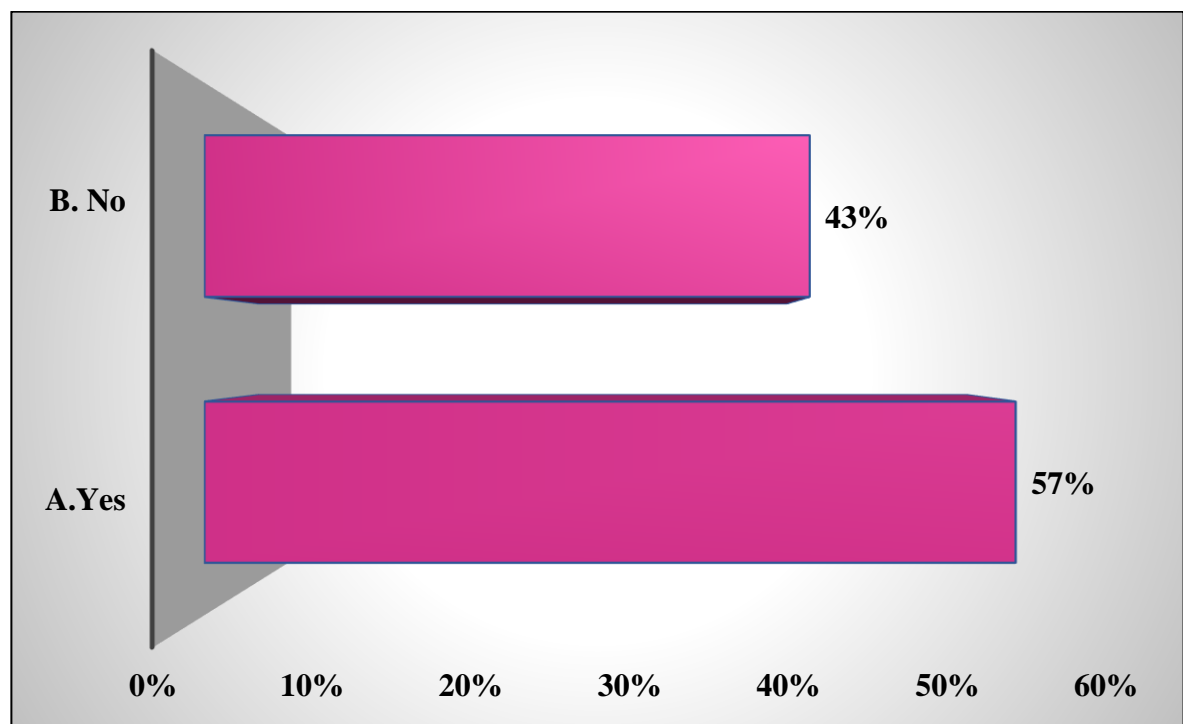


- **Yes (64%):** Most agree that no single drug class is sufficient for managing nausea and vomiting in surgical contexts.
- **No (36%):** Some of clinicians disagree.

4. Do you agree that Amisulpride Injection possesses unique pharmacological properties and favorable safety profile as compared to other dopamine antagonists?

A. Yes

B. No

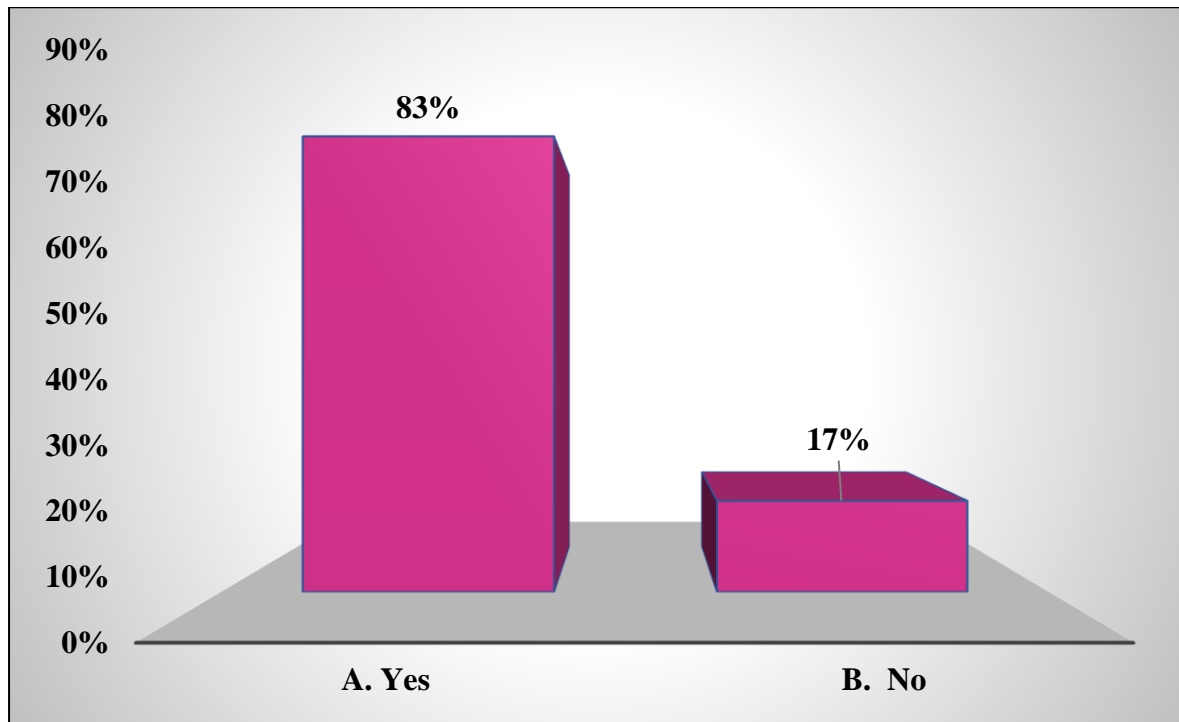


- **Yes (57%):** A majority recognize its unique pharmacological properties compared to other dopamine antagonists.
- **No (43%):** A substantial minority do not agree.

5. In your clinical practice, have you used Amisulpride Injection in your practice for preventing or treating nausea and vomiting in surgical settings?

A. Yes

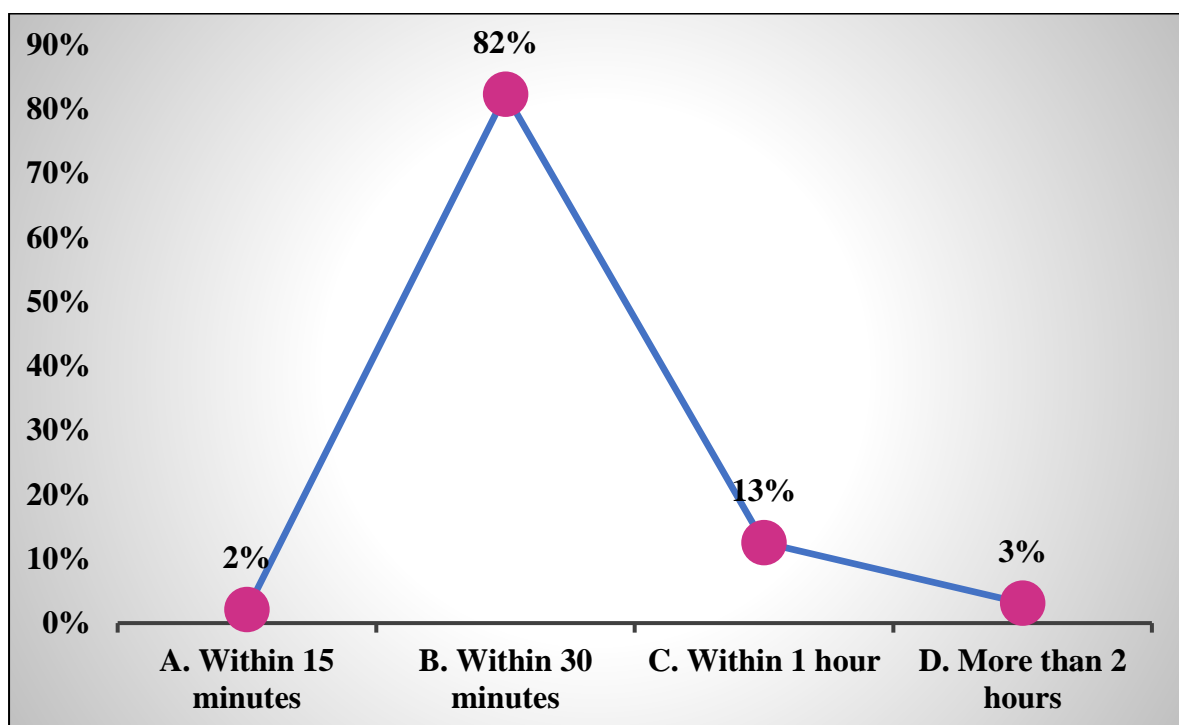
B. No



- **Yes (83%):** Most clinicians have used Amisulpride in practice for managing postoperative nausea.
- **No (17%):** A small group has not used it.

6. In your clinical practice, how quickly do you observe the onset of action of Amisulpride Injection in preventing or treating nausea and vomiting in surgical settings?

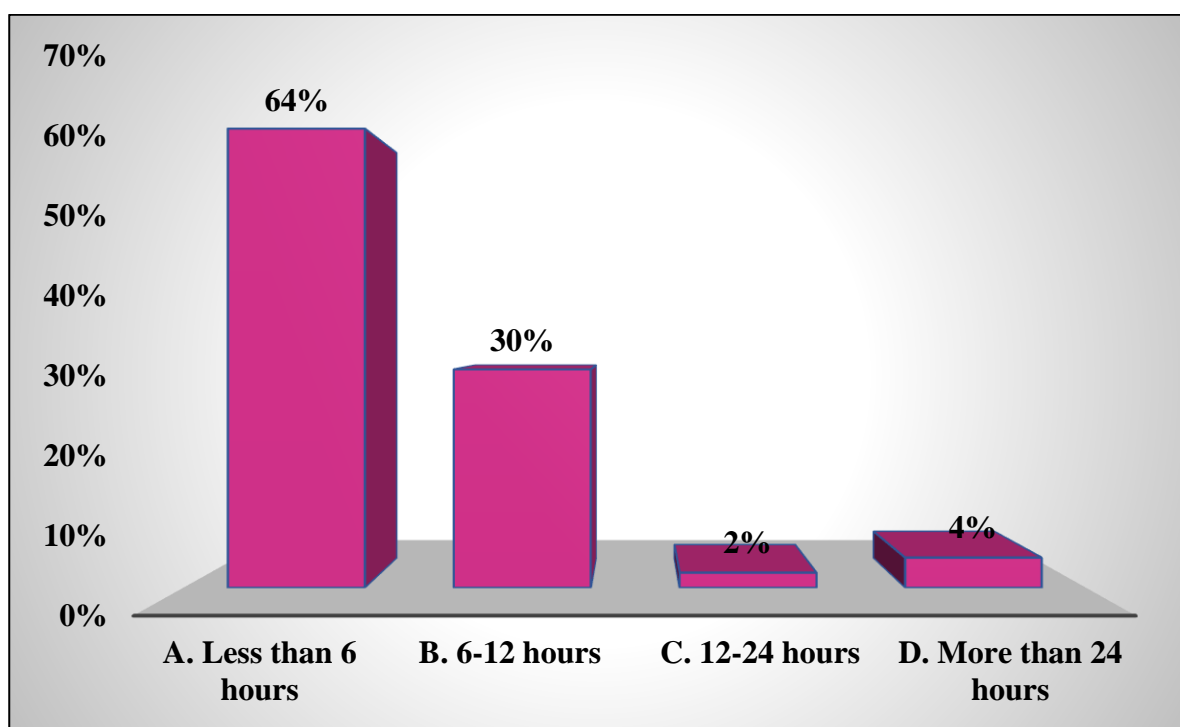
- A. Within 15 minutes
- B. Within 30 minutes
- C. Within 1 hour
- D. More than 2 hours



- **Within 30 minutes (82%):** Most clinicians observe action within this timeframe.
- **Within 1 hour (13%), More than 2 hours (3%), Within 15 minutes (2%):** Fewer expect a quicker or longer onset.

7. In your clinical experience, how long does the antiemetic effect of Amisulpride Injection last?

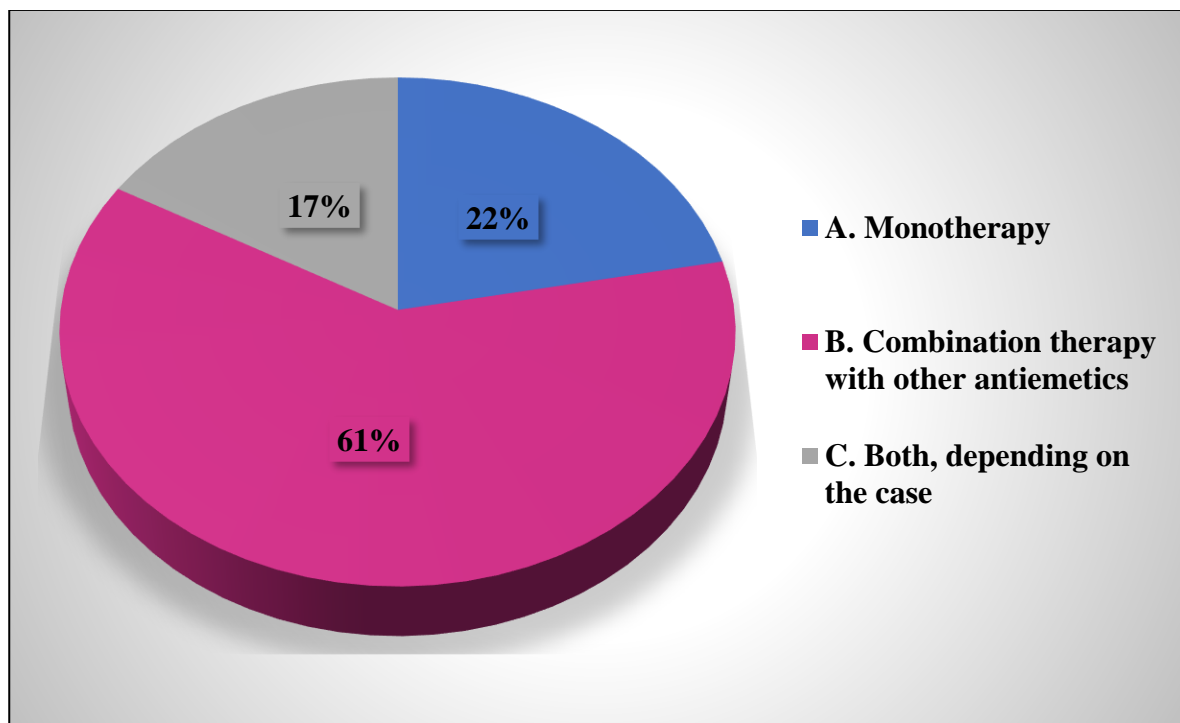
- A. Less than 6 hours
- B. 6-12 hours
- C. 12-24 hours
- D. More than 24 hours



- **Less than 6 hours (64%):** Most believe the effect lasts under 6 hours.
- **6-12 hours (30%), 12-24 hours (2%), More than 24 hours (4%):** Fewer expect longer durations.

8. In your clinical practice, how would you prefer using Amisulpride Injection in management of nausea and vomiting in surgical settings?

- A. Monotherapy
- B. Combination therapy with other antiemetics
- C. Both, depending on the case



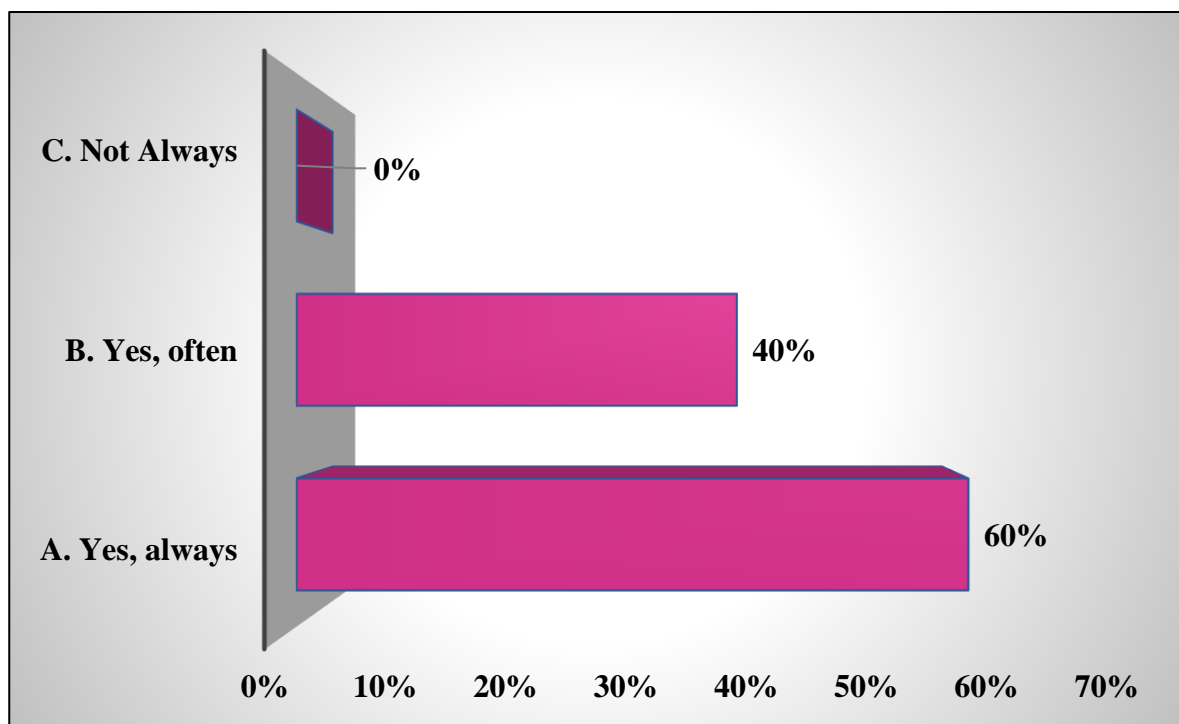
- **Combination therapy with other antiemetics (61%):** Most prefer using it in combination with other treatments.
- **Monotherapy (22%), Both, depending on the case (17%):** Some use it alone or based on circumstances.

9. In your clinical practice, do you use Amisulpride Injection in combination with other antiemetics for management of nausea and vomiting in surgical settings?

A. Yes, always

B. Yes, often

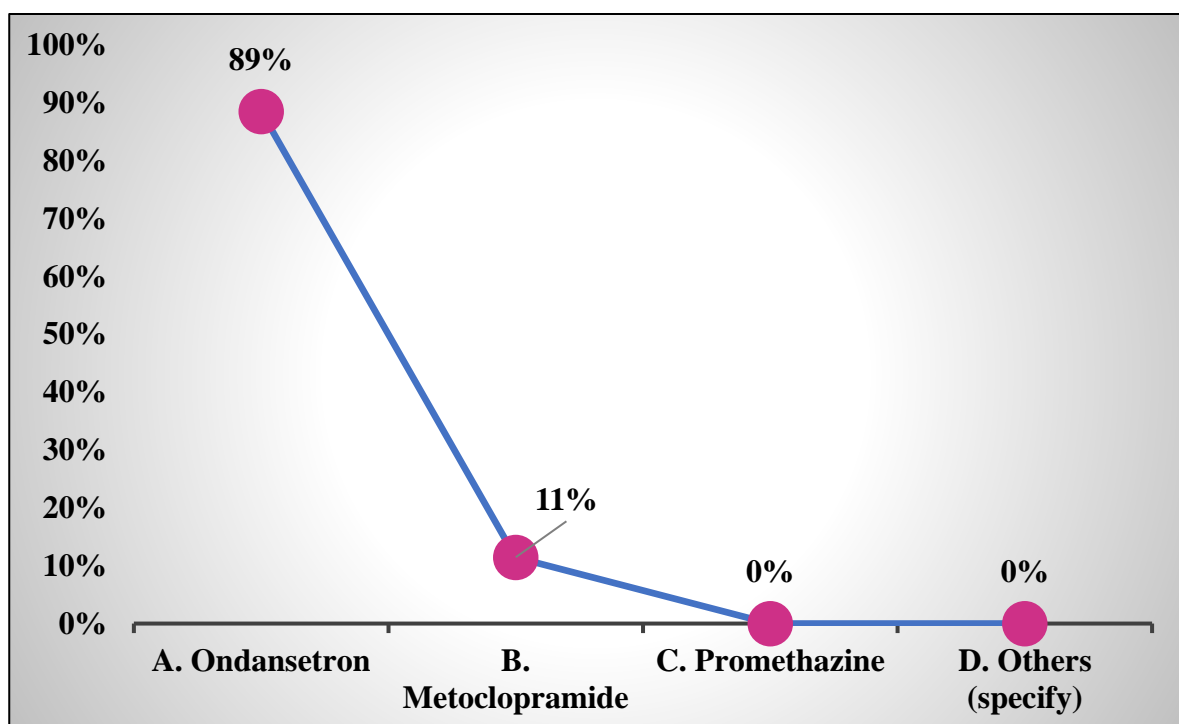
C. Not Always



- **Yes, always (60%):** Many clinicians consistently combine it with other antiemetics.
- **Yes, often (40%):** Some clinicians use it regularly or selectively.

10. In your practice, if you use Amisulpride Injection in combination therapy, which other antiemetics do you typically combine it with?

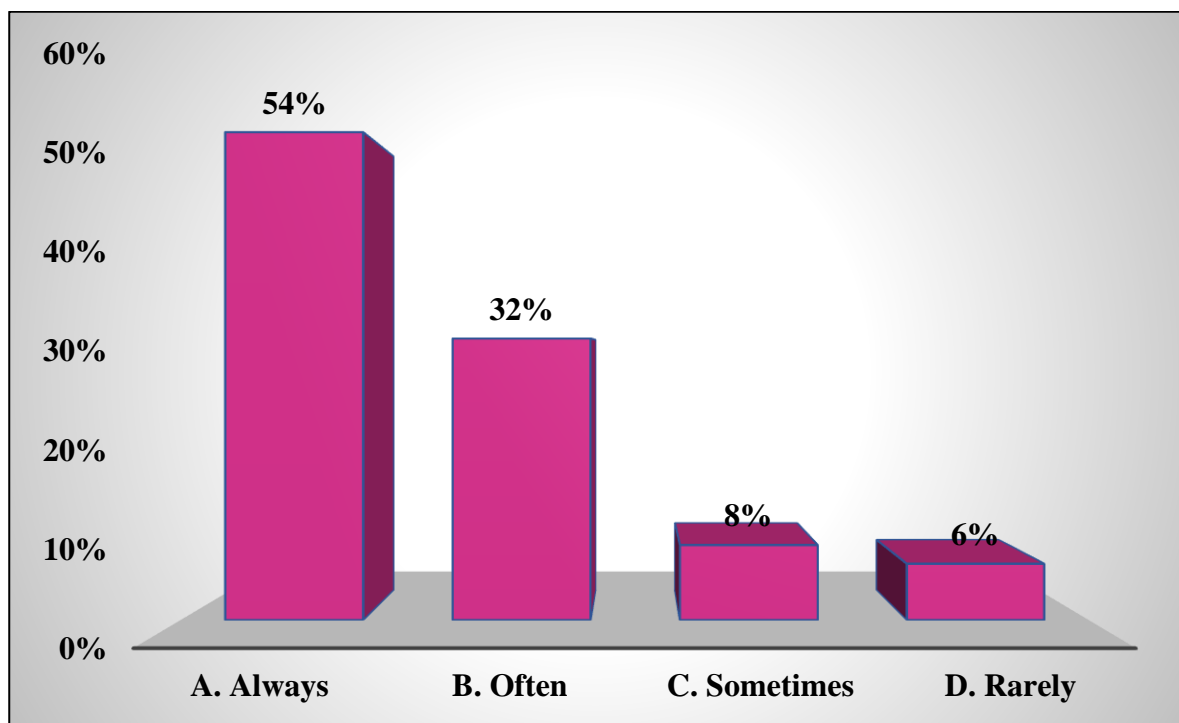
- A. Ondansetron
- B. Metoclopramide
- C. Promethazine
- D. Others (specify)



- **Ondansetron (89%):** The most frequent combination.
- **Metoclopramide (11%):** Less commonly combined medications.

11. In your clinical practice, how often do you use Amisulpride Inejction as first line treatment for management of nausea and vomiting in surgical settings?

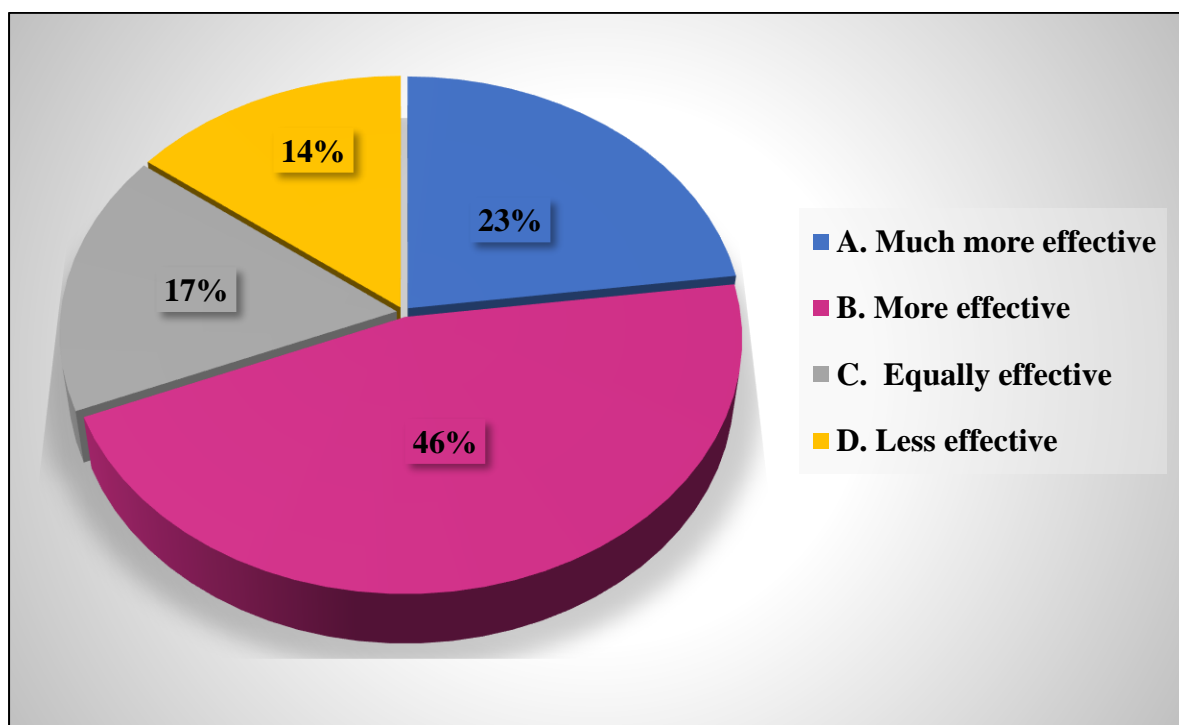
- A. Always
- B. Often
- C. Sometimes
- D. Rarely



- **Always (54%):** Just over half use it as first-line therapy.
- **Often (32%), Sometimes (8%), Rarely (6%):** Others use it with varying frequency.

12. According to your opinion, how would you rate the overall efficacy of Amisulpride Injection compared to other antiemetics you have used in your clinical practice?

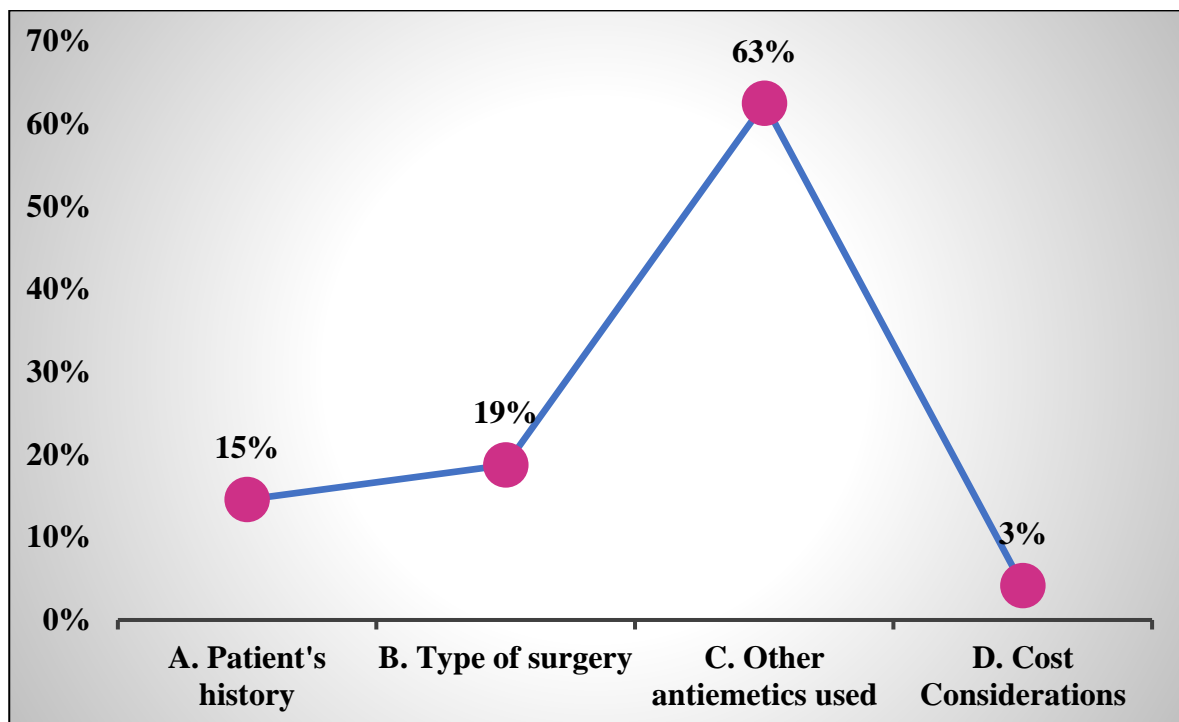
- A. Much more effective
- B. More effective
- C. Equally effective
- D. Less effective



- **More Effective (46%):** A large majority find Lasmiditan more effective than traditional triptans.
- **Much More Effective (23%):** Some think its efficacy varies by patient population.
- **Equally Effective (17%) & less effective (14%):** A small group finds it equally & less effective compared to triptans.

13. According to your opinion, what factors influence your decision to use Amisulpride Injection for management of nausea and vomiting in surgical settings?

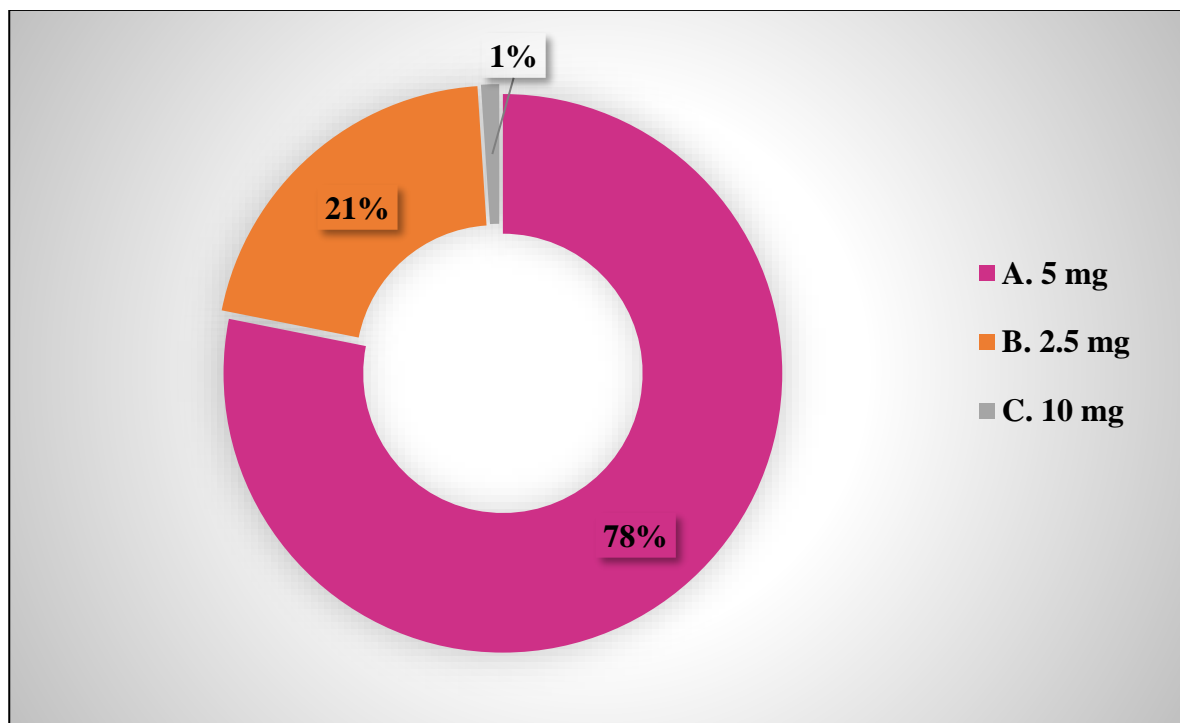
- A. Patient's history
- B. Type of surgery
- C. Other antiemetics used
- D. Cost Considerations



- **Other antiemetics used (63%):** This is the primary factor influencing decisions.
- **Type of surgery (19%), Patient's history (15%), Cost Considerations (3%):** Other factors are less significant.

14. In your clinical practice, what dose of Amisulpride Injection do you prefer for prevention of nausea and vomiting in surgical settings?

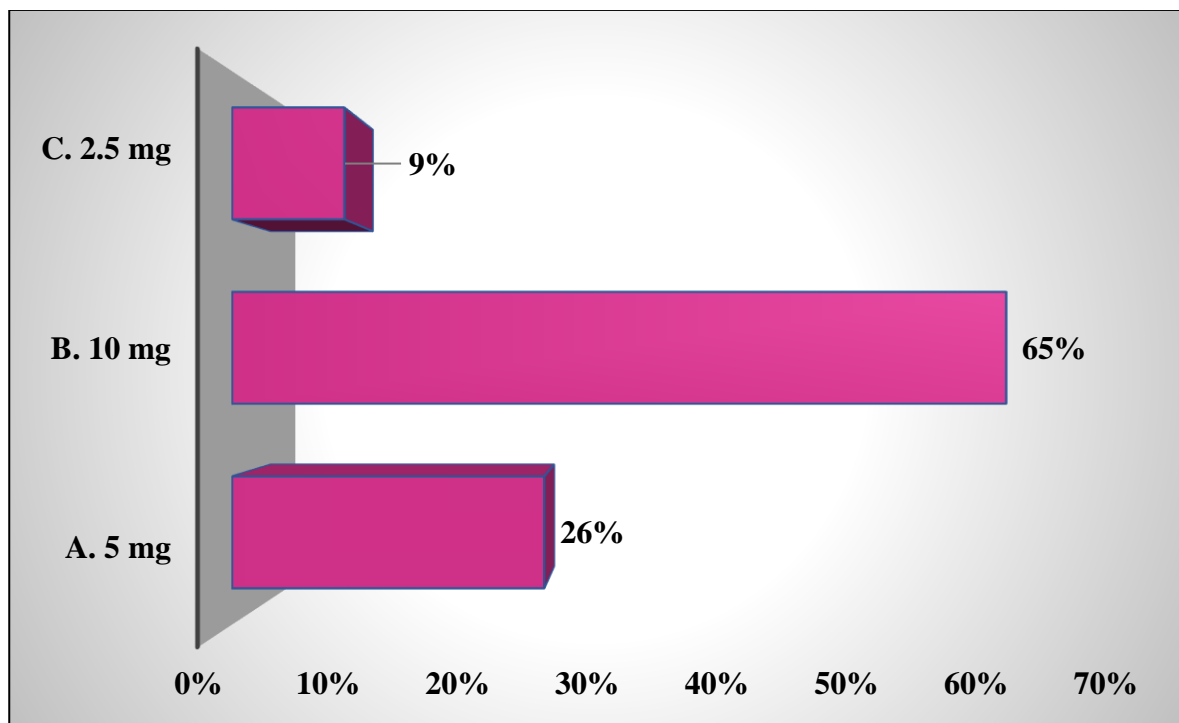
- A. 5 mg
- B. 2.5 mg
- C. 10 mg



- **5 mg (78%):** Most clinicians prefer this dose for prevention.
- **2.5 mg (21%), 10 mg (1%):** Fewer select lower or higher doses.

15. In your clinical practice, what dose of Amisulpride Injection do you prefer for treatment of nausea and vomiting in surgical settings?

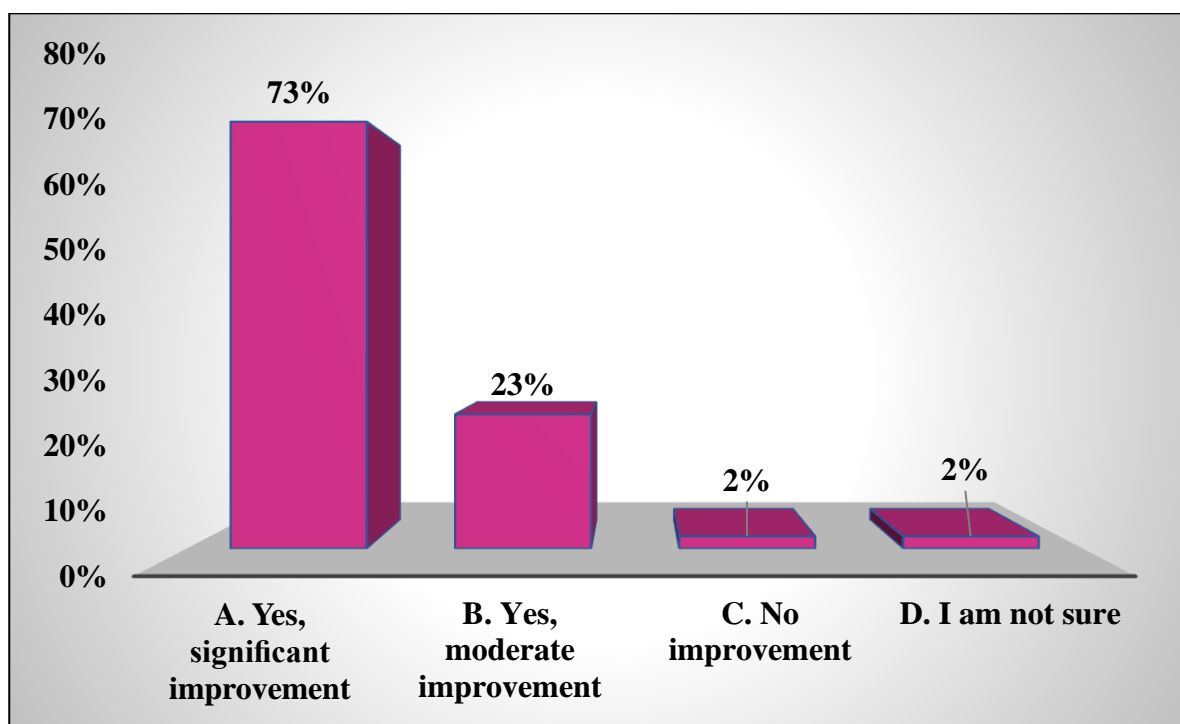
- A. 5 mg
- B. 10 mg
- C. 2.5 mg



- **10 mg (65%):** The most common dose for treatment.
- **5 mg (26%), 2.5 mg (9%):** Less common choices.

16. In your clinical practice, have you noticed any improvement in patient recovery times with the use of Amisulpride Injection for PONV?

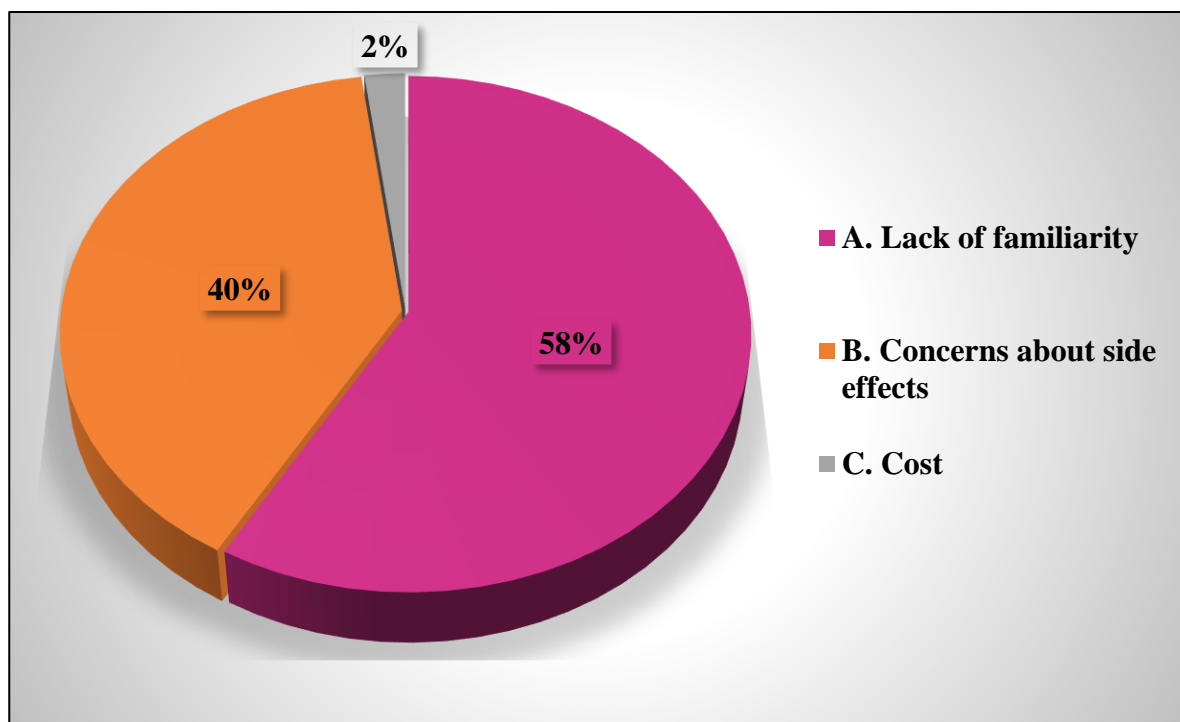
- A. Yes, significant improvement
- B. Yes, moderate improvement
- C. No improvement
- D. I am not sure



- **Yes, significant improvement (73%):** Most have observed notable recovery benefits.
- **Yes, moderate improvement (23%), No improvement (2%), Not sure (2%):** A small number see less impact.

17. In your opinion, what are the main barriers to the use of Amisulpride Injection in your practice?

- A. Lack of familiarity
- B. Concerns about side effects
- C. Cost

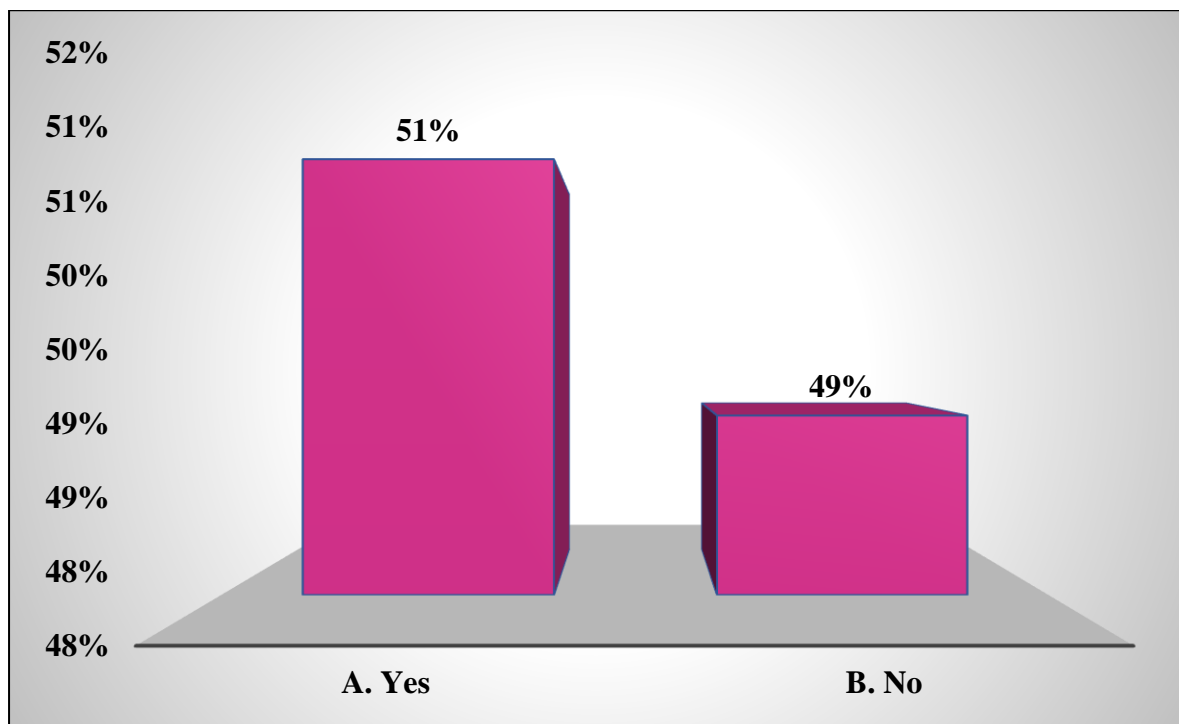


- **Lack of familiarity (58%):** The main barrier cited.
- **Concerns about side effects (40%), Cost (2%):** Other barriers are less significant.

18. Are you aware that intravenous amisulpride does not meaningfully prolong the QTc interval at effective doses?

A. Yes

B. No



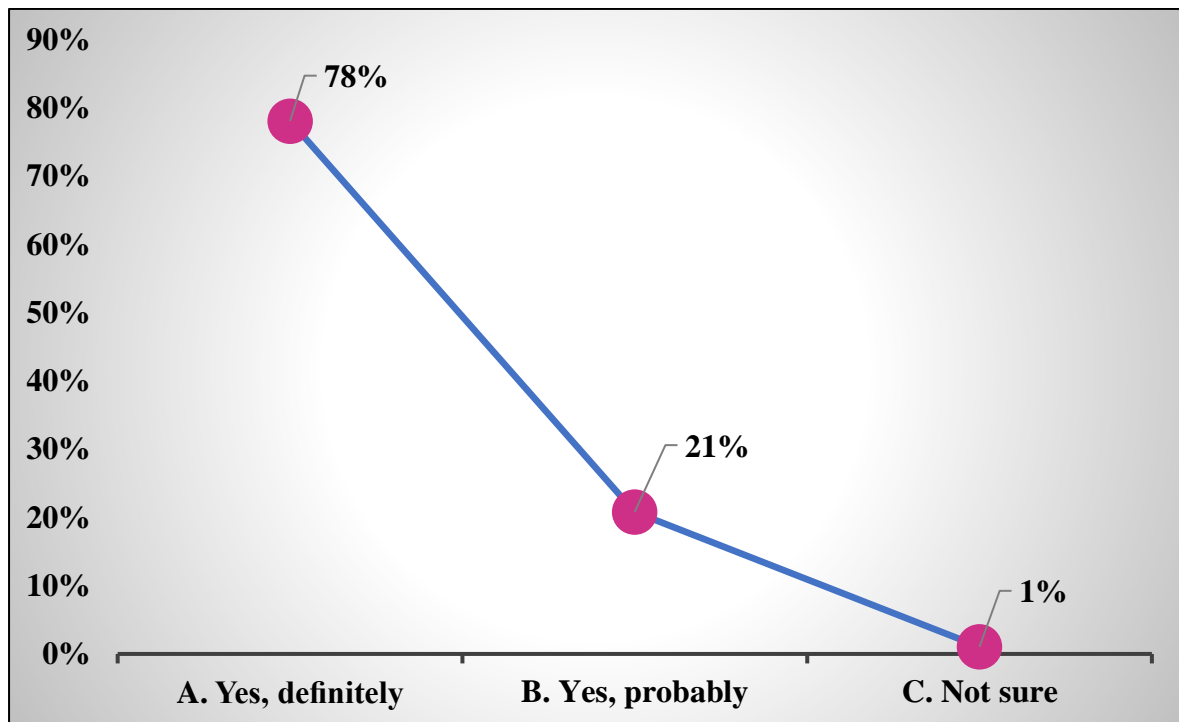
- **Yes (51%):** Half of clinicians are aware that it does not meaningfully prolong the QTc interval.
- **No (49%):** The other half are not aware.

19. Do you foresee increasing your use of Amisulpride Injection for management of nausea and vomiting in surgical settings?

A. Yes, definitely

B. Yes, probably

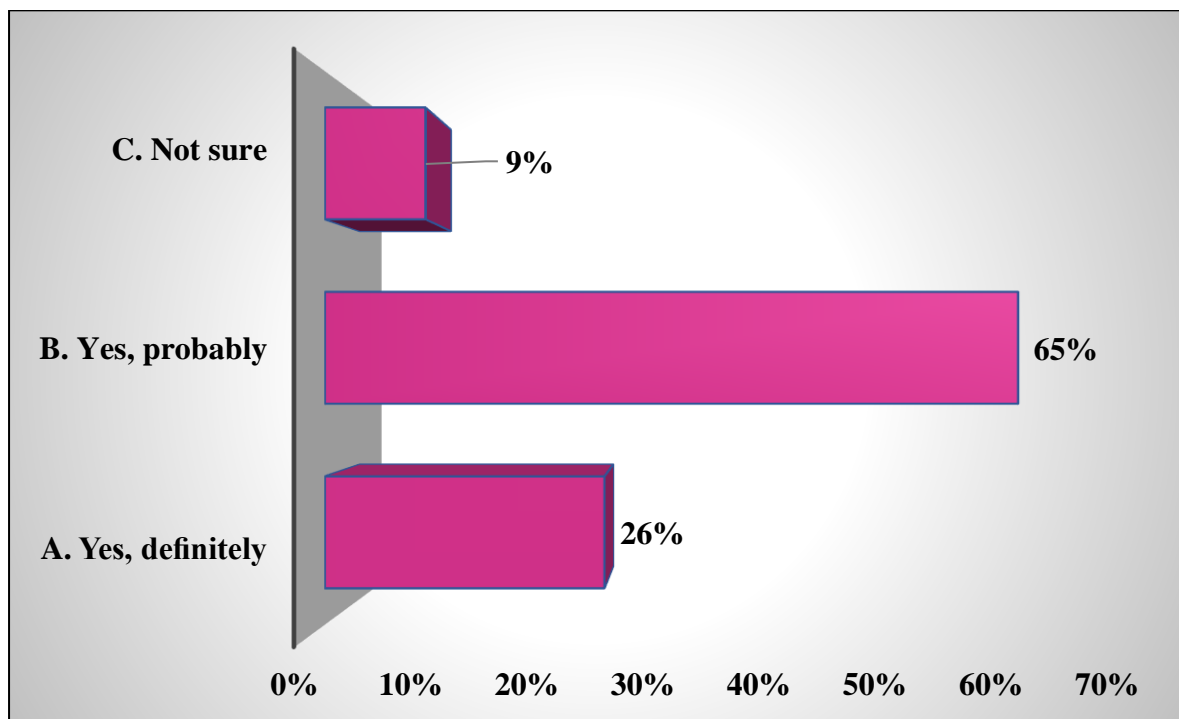
C. Not sure



- **Yes, definitely (78%):** Most foresee increasing its use.
- **Yes, probably (21%), Not sure (1%):** A few are uncertain.

20. Would you recommend the use of Amisulpride Injection to your colleagues for the prevention and treatment of nausea and vomiting in surgical settings?

- A. Yes, definitely
- B. Yes, probably
- C. Not sure



- **Yes, probably (65%):** A significant majority would recommend it to colleagues.
- **Yes, definitely (26%), Not sure (9%):** Few are unsure about recommendations.

SUMMARY

This study provides important insights into clinicians' perspectives on the use of Amisulpride Injection for managing PONV. While its potential as a therapeutic option is recognized, significant gaps in awareness and familiarity persist.

- **Awareness of Amisulpride for PONV:** Only 15% of clinicians are aware of Amisulpride's use in surgical contexts, highlighting a substantial knowledge gap.
- **Effectiveness of Current Therapies:** An overwhelming 90% of clinicians believe current therapies are effective for nausea and vomiting, showing confidence in existing treatment options.
- **Need for Multimodal Approaches:** 64% of respondents agree that no single drug class suffices for PONV management, emphasizing the importance of combination therapies.
- **Recognition of Unique Pharmacological Properties:** A majority (57%) acknowledge Amisulpride's distinct properties compared to other dopamine antagonists, while 43% remain unaware of these benefits.
- **Clinical Use of Amisulpride:** Most clinicians (83%) have used Amisulpride for PONV, suggesting its clinical application despite low overall familiarity.
- **Onset of Action:** A significant 82% of clinicians report that Amisulpride acts within 30 minutes, aligning with its rapid-action profile.
- **Duration of Effect:** Most clinicians (64%) believe its effect lasts less than 6 hours, with a smaller proportion expecting longer durations (30% expect 6–12 hours).

- **Preferred Use:** Combination therapy is the preferred approach for 61% of clinicians, with Ondansetron being the most commonly paired antiemetic (89%).
- **First-Line Therapy:** Amisulpride is used as a first-line treatment by 54% of clinicians, while others employ it less frequently.
- **Efficacy Compared to Other Antiemetics:** 46% rate Amisulpride as more effective than other antiemetics, while 23% find it much more effective.
- **Factors Influencing Use:** The most significant factor affecting Amisulpride's use (63%) is the availability of other antiemetics, followed by the type of surgery (19%) and patient history (15%).
- **Preferred Doses:** For prevention, 78% of clinicians prefer a 5 mg dose, while 65% choose a 10 mg dose for treatment.
- **Impact on Patient Recovery:** A majority (73%) report significant improvements in recovery times with Amisulpride, supporting its clinical utility.
- **Barriers to Use:** Lack of familiarity (58%) and concerns about side effects (40%) are the primary barriers to wider adoption.
- **Awareness of QTc Prolongation:** Only 51% of clinicians are aware that Amisulpride does not significantly prolong the QTc interval, indicating a need for further education.
- **Future Use and Recommendations:** Most clinicians (78%) foresee increasing Amisulpride's use in the future, with 65% likely to recommend it to colleagues.

Overall, while Amisulpride shows promise as an effective option for managing postoperative nausea, a significant number of clinicians remain unfamiliar with it. The findings highlight the need for increased education and awareness regarding its efficacy and applications in clinical practice.

DISCUSSION

The survey underscores a significant gap in awareness of Amisulpride Injection among clinicians, with only 15% familiar with its use for postoperative nausea. Despite this, 83% of clinicians have used it in practice, highlighting its emerging role in clinical settings. The majority recognize its rapid onset of action (within 30 minutes for 82%) and observe significant improvements in recovery times (73%), supporting its efficacy in PONV management.

However, the preference for combination therapy (61%) and the acknowledgment that no single drug class suffices (64%) reflect the complexity of nausea management in surgical contexts. While 57% of clinicians appreciate Amisulpride's unique pharmacological profile, a substantial minority remain unaware of its potential benefits.

Barriers such as lack of familiarity (58%) and concerns about side effects (40%) need to be addressed through targeted education and awareness programs. Additionally, only 51% of clinicians are aware of the minimal impact on QTc prolongation, suggesting further clarification is necessary.

The findings point to a promising future for Amisulpride in clinical practice, with most clinicians (78%) anticipating increased usage and 65% expressing a willingness to recommend it to colleagues. By addressing knowledge gaps and enhancing awareness of its safety and efficacy, Amisulpride has the potential to become a key component in the multimodal management of PONV.

CLINICAL RECOMMENDATIONS

- **Increase Awareness:** Educational initiatives should be implemented to enhance clinicians' understanding of Amisulpride and its benefits in nausea management.
- **Promote Combination Therapy:** Encourage the use of Amisulpride in combination with other antiemetics to improve overall efficacy and patient outcomes.
- **Standardize Dosing Protocols:** Develop guidelines for preferred dosages based on survey findings, especially the 5 mg dose for prevention and 10 mg for treatment.
- **Monitor Recovery Times:** Clinicians should document recovery times to further establish the efficacy of Amisulpride in practice.

CONSULTANT OPINION

Expert Consultants generally view Lasmiditan favorably as an effective and safe option for migraine treatment. Its unique action mechanism and non-vasoconstrictor nature are particularly appreciated. Consultants recommend continued research and monitoring to further establish its role in migraine management and to address any emerging concerns.

MARKET OPPORTUNITIES

The landscape for managing postoperative nausea is evolving, with increasing recognition of the need for effective treatment options. Amisulpride injection offers significant market potential due to the following factors:

- **Growing Surgical Volume:** With the rise in elective surgeries, the demand for effective antiemetics is surging.
- **Efficacy and Safety Profile:** Clinicians are seeking alternatives that provide rapid onset and sustained relief without significant side effects, positioning Amisulpride favorably.
- **Awareness and Education:** Increased focus on educating healthcare providers about Amisulpride can enhance its acceptance and usage in clinical practice.
- **Combination Therapy Trends:** The growing trend towards combination therapy in managing nausea allows for better patient outcomes, making Amisulpride an attractive option when paired with other antiemetics.

MARKET POSITIONING

To successfully position Amisulpride injection in the market, the following strategies are essential:

- **Highlight Unique Benefits:** Emphasize Amisulpride's unique pharmacological properties and its efficacy in managing postoperative nausea compared to traditional antiemetics.
- **Target Key Segments:** Focus on surgical departments and anesthesiologists who are looking for reliable antiemetic options, particularly in high-risk surgical settings.

- **Educational Initiatives:** Implement targeted educational campaigns to inform clinicians about the advantages of using Amisulpride, supported by clinical evidence and case studies.
- **Branding and Accessibility:** Establish a strong brand presence that promotes Amisulpride as a leading choice for postoperative nausea management, making it readily accessible to healthcare providers.

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