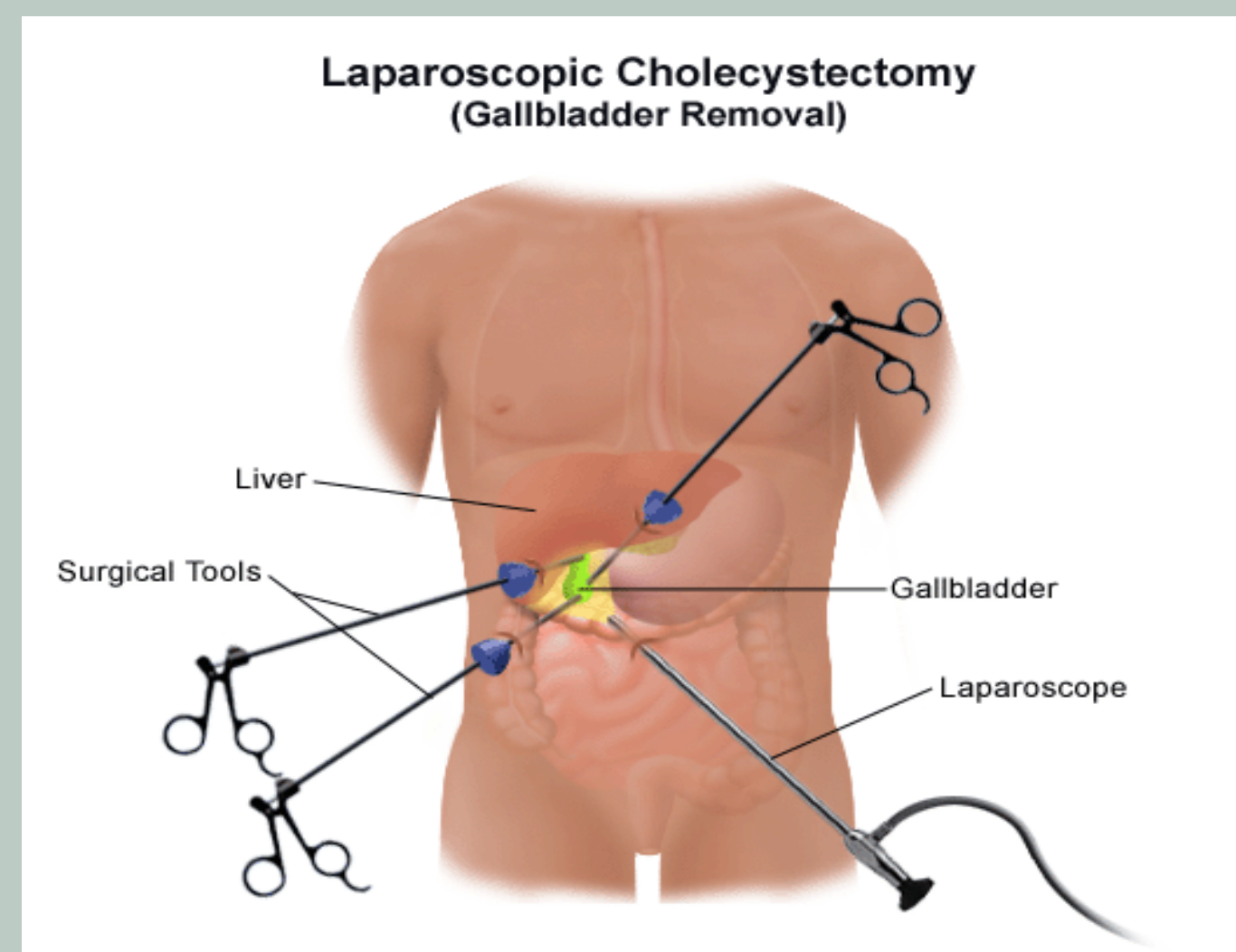


Length of Stay for Laparoscopic Cholecystectomy

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Background

- The length of stay (LOS) varies significantly in the post-op short stay unit at a local community hospital for a laparoscopic cholecystectomy.
- Postoperative nausea and vomiting (PONV) is a common complication after general anesthesia in patients undergoing laparoscopic cholecystectomy, which can increase a patient's LOS.



Research Questions

- What is the current average post-op LOS for laparoscopic cholecystectomy patients?
- What factors differ in the care of laparoscopic cholecystectomy patients that stay longer?
- Can the care be standardized to shorten the length of stay in the post-op short stay unit?

Objectives

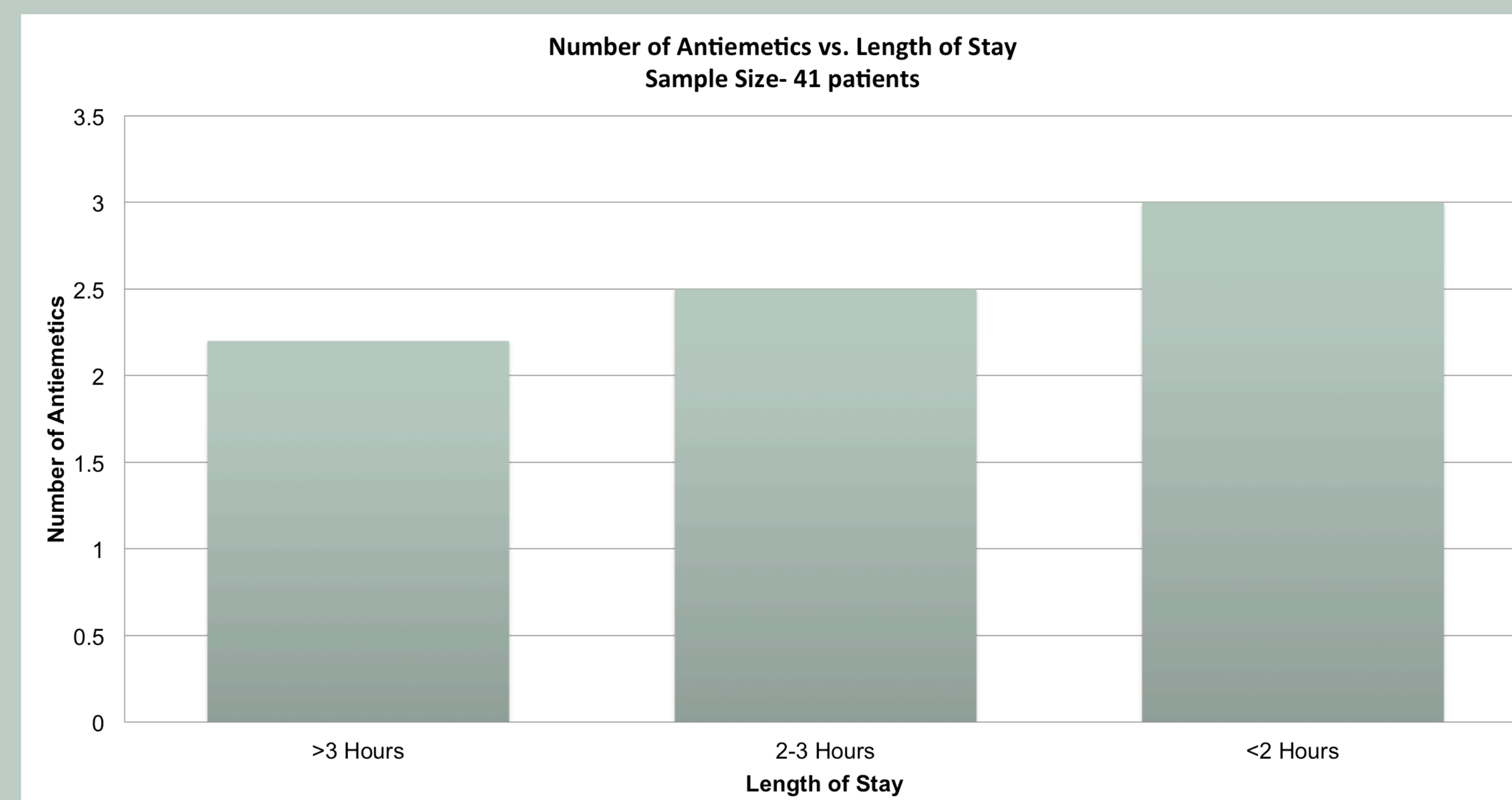
- To decrease the average length of stay in the post-op unit after a laparoscopic cholecystectomy from the 170 minutes current average to 120 minutes.

Methods

- Reviewed EPIC charts of 41 patients who received a laparoscopic cholecystectomy since July 1st 2014 and gathered data on the following:
 - Medications used during the procedure
 - Use of a nerve block
 - Xanax administration before the surgery
 - Difference between LOS of males and females
- Observed the care of a patient getting a laparoscopic cholecystectomy from hospital arrival to discharge, including the procedure, communication of staff and nursing care
- Conducted a literature review to gather information on evidence based standards of care

Results

- No differences in LOS was found based on the following factors:
 - Nerve blocks, Xanax before surgery, or differences between males and females
- Patients who received at least 3 different antiemetics during surgery had the shortest length of stay.
 - Common intraoperative antiemetics included ondansetron, dexamethasone, metoclopramide, ephedrine, scopolamine patch, diphenhydramine and propofol infusion
 - Our findings agree with evidence based literature that suggests using a combination of antiemetics may be the most effective method of preventing PONV for high-risk patients, because different antiemetics work on different neurotransmitters involved in the pathogenesis of post-op nausea and vomiting (Wilhelm, Dehoorne-Smith, Kale-Pradhan, 2007).



Discussion

- Combining antiemetics provides more effective coverage by preventing nausea and vomiting through a variety of pathways.
- This study showed that increasing the number of different antiemetics used during surgery leads to a shorter length of stay.
- Patients with less nausea and vomiting meet the discharge criteria sooner, reducing their length of stay in the post-op unit.
- A limitation of this study was that the literature used is slightly outdated, from 2007.

Recommendations

- A combination of at least 3 different antiemetics should be used during laparoscopic cholecystectomy to reduce postoperative nausea and vomiting in order to reduce the length of stay.
- Research upcoming literature for more recent study results



References

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- Wilhelm, S. A., Dehoorne-Smith, M. L., Kale-Pradhan, P. B. (2007). Prevention of postoperative nausea and vomiting. *The Annals of Pharmacotherapy*, 41(1), 68-78. Retrieved from http://www.medscape.com/viewarticle/553034_6