

## **RUTGERS HEALTH** School of Nursing



**Exclusion Criteria:** Male patients, systematic reviews, qualitative studies, nonlaparoscopic surgery, undefined dosing of dexamethasone

# The Dose-response Effect of Intravenous Dexamethasone for Postoperative Nausea and **Vomiting in Women Undergoing Laparoscopic Surgery: A Systematic Review**

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## Results **DREAMS** Trial **GI Surger** 1350 **8mg Dexameth** Population (patients) 674 **Control Antien** 676 % Laparoscopic 63% / 42% / % Women 8mg of dexamethaso Main Result favorable in re **PONV** compar standard antie Search Strategy **Discussion** Records removed before screening: Records marked as ineligible by 705 studies • Prior literature recognized the role of dexamethasone in PONV prophylaxis automation tools for inclusion and from 3 but failed to suggest its optimal dosing and did not specifically address high databases risk patient populations such as women undergoing laparoscopic surgery. 154 screened afte<mark>r exclusi</mark>on • Findings are supported by previously published systematic review from Zou et criteria al., 2014 highlighting dexamethasone for patients undergoing thyroidectomy. • Utilizing the optimal dose of dexamethasone for PONV prophylaxis aids in 95 excluded by Records excluded based on title title reducing overall healthcare costs to both hospitals and patients. Limitations 21 excluded by abstract • Lack of research utilizing dexamethasone as a single drug treatment. Reports excluded based on abstract • Limited number of studies comparing specific doses for optimal outcomes 2 duplicates • Inability to perform meta-analysis due to high degree of patient heterogeneity removed among sample groups, and lack of studies available solely focusing on women Reports removed based on duplicates **Recommendations for the Future** 8 excluded by full-text • Further research with larger sample sizes to strengthen supporting evidence Individual Total (n = 11) • Analyzing dexamethasone as a single drug agent in different strengths to aid in Once combined additional duplicates 8 critically appraised by 2 the support of an optimal dose. independent • Increasing focus on high-risk patient populations, such as laparoscopic surgery reviewers Reason 1: Non-Laparoscopic and particularly women, to provide valuable data for future research. Reason 2: Combination drug Reason 3: Poor quality of research Conclusions 8 mg of dexamethasone is efficacious to prevent PONV in women 3 eligible articles included undergoing laparoscopic surgery when administered before incision in the systematic review • Increased dosing of dexamethasone to 8mg does not correlate with a statistically significant increase in adverse outcomes

table and narrative format

al, 2017	<u>Virivaroj et al., 2015</u>	<u>Yamanaga et al., 2017</u>
ry: hasone: metics:	Laparoscopic Cholecystectomy: 80808mg Dexamethasone: 4040Control Antiemetics: 40	Laparoscopic donor Nephrectomy: 281 4-6mg Dexamethasone: 70 8-14mg Dexamethasone: 100 Control Antiemetics: 111
%	100% / 65%	100% / 62.3%
one is educing ared to emetics	8 mg of dexamethasone reduced pain and PONV in the first 24 hrs	High dose (8-14mg) of dexamethasone reduces antiemetic and opioid consumption in the first 24 hrs postoperatively.

## **Systematic Review and References**



## **Contact Information**

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