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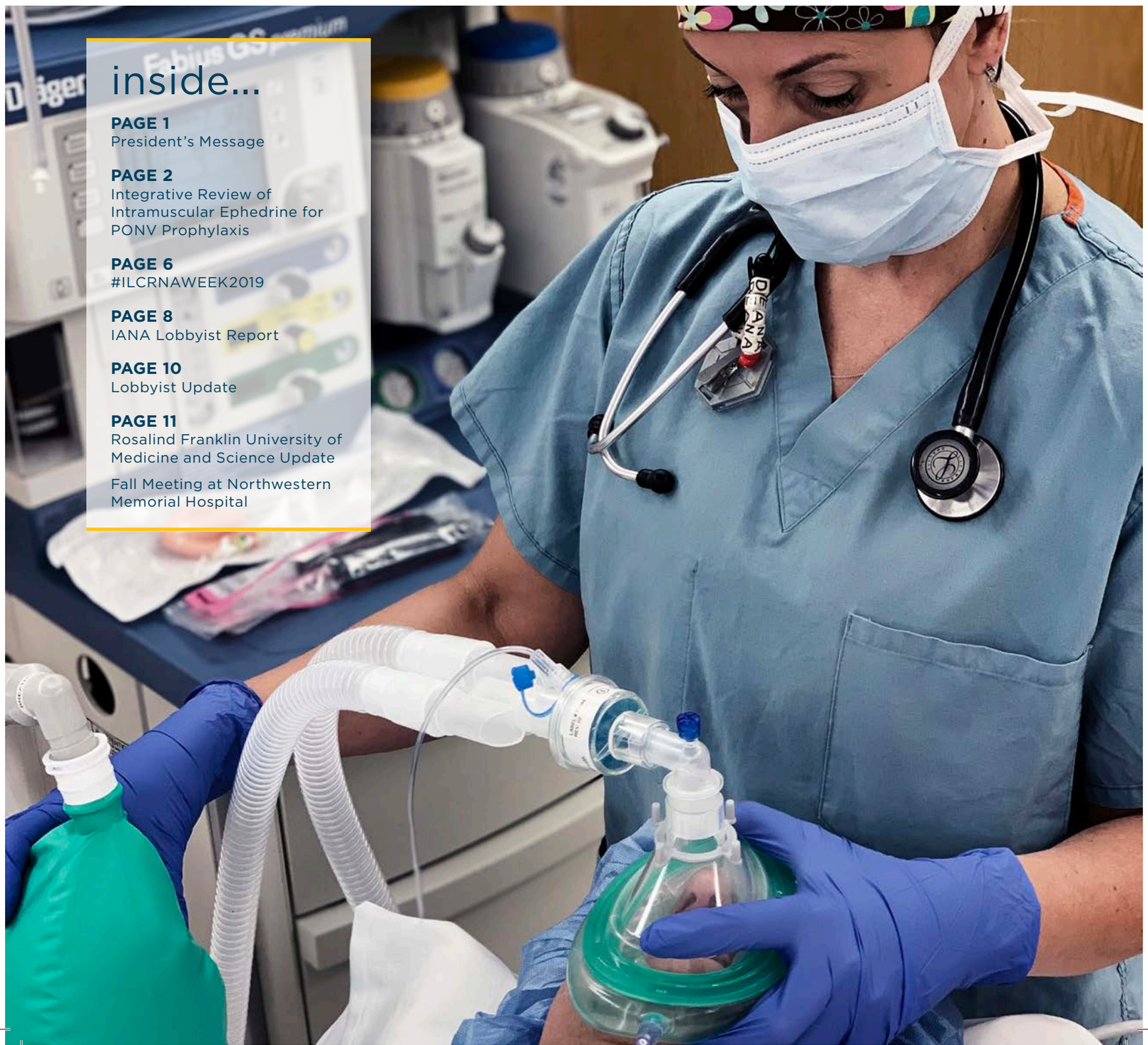

inside...

ON THE COVER

Deanna Giacalone, CRNA, MS. As a practitioner at Illinois Valley Community Hospital in Peru, IL, this CRNA is the face behind the very successful billboard that was displayed on I-294 in support of the 20th Annual CRNA Week 2019. Thanks to Deanna and the IANA Public Relations team, this billboard was seen by millions during the daily commute in this high visibility location.

AN UPDATE FROM YOUR REGION II DIRECTOR

The region map of Illinios has changed slightly, and Region II now covers all of Cook county. In the last several months, Regions II and VII have combined efforts for a few joint region dinners in an effort to enhance networking and education. Blumark Financial Services provided a comprehensive overview of financial planning strategies that were specific to CRNAs during the meeting in November in Rosemont. Pacira Pharmaceuticals hosted a dinner downtown at Mastro's steakhouse in February and presented on the use of Exparel in anesthesia pain management. Mark your calendars for a Region II dinner hosted by Merck at Maggiano's at Old Orchard Mall on April 4th.

Your Illinois Association of Nurse Anesthetists

JOURNAL OF THE IANA STAFF

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As required by section 6033(e) of the Internal Revenue Code, we are required to inform you that $58.13 (or 25%) of your state membership dues are allocated toward expenses incurred by the Illinois Association of Nurse Anesthetists for state lobbying activities. This amount is not deductible for federal income tax purposes. All IANA members are also members of the AANA.

IANA

PRESIDENT'S MESSAGE

This past year, your IANA Board of Directors and Executive Director Micah Roderick have been working to establish a stronger presence with legislators in the Illinois General Assembly. We have used a two-pronged approach in our grassroots effort: face to face meetings with several legislators and developing a healthy PAC fund. Meeting with legislators is crucial, and we will continue to ask other CRNA members to get involved. This is your practice we are fighting for! We also have been meeting with legislators to educate them on the role of CRNAs in anesthesia care throughout Illinois. The reality is, if left to the physician anesthesiologist they will continue to perpetuate false propaganda about your role and scope of practice in their attempt to discredit the history of safe and cost-effective care we provide.

In December, lobbyist Roger Bickel resigned. We thank Roger for his years of service. In his place, we have hired two excellent lobbyist firms. We will be working with TaylorUhe and Dan Shomon, Inc. who is also contracting with Capitol Edge Consulting to promote our message in Springfield. We are very excited for the Spring 2019 legislative session as we look to remove anti-competitive regulatory barriers that are out-dated and do not reflect current practice. We also continue our opposition of the costly and unnecessary licensure of anesthesiologist assistants in Illinois.

As always, we continue to work on improving our communication with members. We currently have over 600 individuals in our Illinois CRNA/SRNA Facebook group and would like to see all of our state members in it so we can create a dialogue that allows for transparency as well as accountability. I'm sure many of you have seen the tremendous efforts of the Public Relations Committee. They have done many things towards the improving public exposure to the nurse anesthesia profession in Illinois. We believe, through their efforts, the citizens of Illinois have a better understanding of who we are and how we contribute to better overall health care for patients. We also want each one of you to be a part of that message.

Influence and messaging take hard work, but they also take money. I am asking everyone to visit the IANA website at www.ilcrna.com and sign up for a $10.00 per month recurring donation to our state PAC. That is something everyone can do. This will allow us to protect and advance our practice in Illinois.

INTEGRATIVE REVIEW OF

Intramuscular Ephedrine for PONV Prophylaxis

Rebecca Feldmann | DNP, CRNA, APN

BIOGRAPHICAL INFORMATION

Dr. Feldmann is a BSN graduate from Saint Louis University and a 2017 MSNA graduate from Rosalind Franklin University of Medicine and Science. In June 2017, she completed her DNP coursework, also at RFU.

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Abstract

Despite a wealth of literature on postoperative nausea and vomiting (PONV) risk factors and treatment recommendations, 20-30% of all surgical patients and 70-80% of high-risk surgical patients experience PONV. A sound strategy to prevent or treat PONV utilizes pharmacologic treatments that target each neuroreceptor responsible for stimulating the vomiting center. While this is known and understood by anesthesia providers, patients still experience PONV. Ephedrine is widely known for its antiemetic effects in the parturient patient undergoing spinal anesthesia for Cesarean section. While the use of ephedrine is well established in treating PONV in this patient population, its use is not well documented in treating PONV in non-pregnant patients undergoing general anesthesia despite anecdotal tales from anesthesia providers regarding its effectiveness as an antiemetic. An integrative review strategy was employed to determine the efficacy of IM Ephedrine to prevent PONV. After systematically searching two databases, four RCT's were reviewed and analyzed. The articles were comparable in terms threats to their internal validity, which impeded the ability to make a definitive practice recommendation. However, all of the articles supported the use of ephedrine IM to reduce PONV. Future study is needed on this topic.

Key words: ephedrine, PONV, postoperative nausea and vomiting, general anesthesia

Conflict of Interest Statement: I have no conflicts of interest to declare.

Despite a wealth of literature on PONV risk factors and treatment recommendations, 20 to 30% of all surgical patients and 70 to 80% of high-risk surgical patients experience PONV.[1] Patients consistently cite nausea and vomiting among the most distressing aspects of anesthesia. Additionally, patients report nausea and vomiting, not pain or other risk factors, as their biggest concern regarding subsequent surgical procedures.[2] A classic study from 2001 revealed the majority of subjects believed avoiding nausea and vomiting in the postoperative period was important and were willing to pay $56 to $100 out of their own pocket to avoid PONV altogether.[3] In addition to patient complaints, PONV has the potential to produce clinically deleterious outcomes. These outcomes include increased intracranial pressure, risk for aspiration, increased intraocular pressure, increased sympathetic response resulting in tachycardia and hypertension, as well as parasympathetic response resulting in bradycardia and hypotension. Lastly, PONV has financial implications in the form of increased time in post-anesthesia care unit (PACU) as well as unexpected hospital admissions. These complications are magnified when one considers the shift in recent years from inpatient to outpatient and office-based anesthesia. Despite the extensive research on this topic, anesthesia providers remain unable to guarantee absence of PONV following administration of general anesthesia.

Ephedrine is widely known for its antiemetic effects in the parturient patient undergoing spinal anesthesia for Cesarean section. Ephedrine works in this circumstance by treating hypotension caused by sympathetic blockade leading to peripheral vasodilation and increased venous capacitance.[4] However, according to more recent data, the antiemetic effects of ephedrine may not be due to treatment of hypotension, which has long been the thought, but rather to inhibition of vagal afferent nerves which stimulate the chemoreceptor trigger zone (CTZ).[4] While the use of ephedrine is well established in treating nausea and vomiting in parturients, its use is not well documented in treating PONV in non-pregnant patients undergoing

general anesthesia despite anecdotal tales from anesthesia providers regarding its effectiveness as an antiemetic. Not only is the use of ephedrine in this setting poorly documented, the studies that do exist are largely inadequate. Gaps in literature include deficiencies of large randomized control trials regarding ephedrine's use as an antiemetic for patients undergoing general anesthesia as well as studies that provide safety recommendations on the use of intramuscular (IM) ephedrine for patients who may not tolerate the sympathomimetic effects seen with intravenous ephedrine.

The research question this review seeks to answer is: For adult patients 18 years or older undergoing general anesthesia who receive IM ephedrine in the perioperative setting, what is the incidence of nausea and vomiting in the first 24 hours postoperatively compared to those who receive placebo and/or other antiemetic agents.

The aim of this review is to reinforce that treatment recommendations for PONV should be rooted in the best available evidence, not anecdotal accounts. It is imperative to determine what evidence exists to support or oppose the use of ephedrine for PONV prophylaxis, the quality of such evidence, and whether treatment recommendations can be made.

BACKGROUND

Physiology of Nausea and Vomiting

Noxious stimuli, such as radiation, toxins, and chemotherapy, as well as motion, anxiety, pregnancy and adverse drug reactions can all trigger nausea and vomiting. These stimuli are integrated and processed in the vomiting center. Stimuli can originate in the periphery or in the central nervous system (CNS).[5] Three sites within the CNS are responsible for the stimulation of the vomiting center; they include the cerebral cortex, the CTZ, and the vestibular system. Anxiety-induced nausea and vomiting likely originates in the cerebral cortex. Information reaches the vomiting center from the cerebral cortex through a variety of neuroreceptors.[5] The CTZ lies in the fourth ventricle of the brain and lacks a true blood brain barrier. Circulating noxious stimuli cross the blood-brain barrier stimulating dopamine (D2) and 5-hydroxytryptamine type 3 (5-HT3) receptors in the CTZ, which in turn stimulate the vomiting center. The vestibular system is located in the bony labyrinth of the temporal lobe. Changes in equilibrium that may stimulate motion sickness are transmitted to the vomiting center through histamine-1 receptors (H1) and muscarinic acetylcholine receptors (mACh). Peripheral stimuli originate in the gastrointestinal tract. Serotonin-activated vagal afferent nerves relay information from the gastrointestinal tract to the area postrema, which resides in the CTZ, regarding gastric tone and intestinal luminal compounds. Prevention of PONV is dependent upon the blockade of the corresponding neurochemical receptors that communicate with the vomiting center.[5]

Current Pharmacologic Strategies

The development of serotonin or 5-HT3 receptor blockers was significant milestone in the treatment of PONV. Serotonin receptors are located throughout the periphery and CNS, most notably in the CTZ and vagal afferent nerves. Thus, drugs from this class, which include ondansetron, granisetron, dolasetron, and palonosetron are highly effective because they inhibit stimulation of both peripheral and central 5-HT3 receptors. In addition to their efficacy rate, they are also non-sedating. Side effects of ondansetron, the most commonly used antiemetic from this class, include constipation, headache, and prolongation of QT interval.[5]

Dopamine (D2) receptor antagonists, which include droperidol, haloperidol, and metoclopramide, exert antiemetic effects by blocking dopamine stimulation in the periphery as well as at the CTZ. Droperidol and haloperidol work centrally, whereas metoclopramide works both centrally and peripherally. Droperidol received a black box warning from the Food and Drug Administration in 2001 due to reports of arrhythmia and death, causing its use to decrease drastically since then.5 The side effect profile of haloperidol includes sedation and extrapyramidal effects in addition to its long half-life of 10-20 hours. Metoclopramide is a pro-kinetic drug that exerts its effects in the gastrointestinal tract as well as the CTZ. Like other D2 antagonists, it can cause extrapyramidal side effects and is associated with adverse cardiac events.[5]

Anticholinergic medications, such as scopolamine and atropine, are potent inhibitors of muscarinic acetylcholine receptors located in the CNS. Specifically, they antagonize M3 and M5 receptors, which are located in the vestibular system, CTZ, and cerebellum and are responsible for motion sickness.[6] Scopolamine transdermal patches are often used preoperatively and are effective in preventing vomiting associated with motion sickness, especially when opioids are used, in the perioperative setting. Atropine is less effective than scopolamine in preventing PONV. In addition to sedation, which can be a limiting factor for their use on the elderly, side effects of anticholinergic medications include dry mouth and blurred vision.

Histamine (H1) receptor antagonists, such as dimenhydrinate, diphenhydramine, and promethazine, are useful for the treatment of PONV and motion sickness. The exact mechanism of action of these medications is unknown, but they likely act by antagonizing histamine receptors in the vestibular system. Diphenhydramine and promethazine also possess moderate antimuscarinic and weak antidopaminergic properties.[5] Thus, the side effects of H1 antagonists include dry mouth, blurred vision and drowsiness, all of which result from their anticholinergic properties. Extrapyramidal side effects are also common and result from antidopaminergic properties. As is true with both D2 receptor antagonists and anticholinergic agents, the side effects of H1 antagonists limit their use in specific patient populations.

Dexamethasone, a synthetic glucocorticoid, is thought to act directly on glucocorticoid receptors within the vomiting center. Dexamethasone lacks any adverse side effects making it an effective and well-tolerated adjunct to PONV prophylaxis. Dexamethasone is more effective when given at the beginning of surgery, indicating a delayed onset of action. Thus, its usefulness is limited to PONV prophylaxis, not treatment.[5]

Propofol, which potentiates-aminobutyric acid-A (GABAA) receptors, is an effective anti-emetic at low doses. A study from 1999 demonstrated that patients who received propofol 20mg IV via patient-controlled analgesia (PCA) device in PACU reported significantly less PONV than those who did not receive propofol.[7] Benzodiazepines are also GABAA agonists. Midazolam is the most commonly used benzodiazepine in the perioperative setting. In addition to being a potent anxiolytic, midazolam acts on GABAA receptors and reduces D2 and 5-HT3 receptor activity in the CTZ.[5]

PONV Risk-Assessment

Several risk factors predispose a patient to PONV. Risk factors fall into one of three categories: patient specific, anesthesia related, and surgery related. Patient specific risk factors include female gender, age less than 50 years, being a non-smoker, history of PONV or motion sickness.1 Anesthetic risk factors include use of volatile anesthetics, use of nitrous oxide, and high doses of perioperative opioids.[1] Surgery related risk factors include duration of surgery greater than one hour and type of surgery. Gynecologic, laparoscopic, strabismus and vestibular surgeries are associated with higher incidences of PONV.

Several simplified risk assessment tools exist to identify patients at high risk for PONV who would benefit from prophylactic treatment. However, it has become common for most of our patients today to receive at least one anti-emetic for any outpatient surgery despite their position on a risk stratification tool.

METHODS

Search Strategy

This manuscript aims to present the current state of knowledge on the relationship between IM ephedrine and PONV prophylaxis. To ensure a comprehensive literature search, inclusion and exclusion criteria were established. Inclusion criteria consists of randomized control trials of adult subjects undergoing general anesthesia who received ephedrine in the perioperative setting for PONV prophylaxis. Randomized control trials (RCT's) were used in this review due their position at the top of the hierarchy of level of evidence with only systematic reviews being higher.[8] Exclusion criteria consists of studies that enrolled subjects less than 18 years of age, subjects receiving ephedrine for treatment of nausea and vomiting related to spinal or epidural administration, and any non-randomized control study.

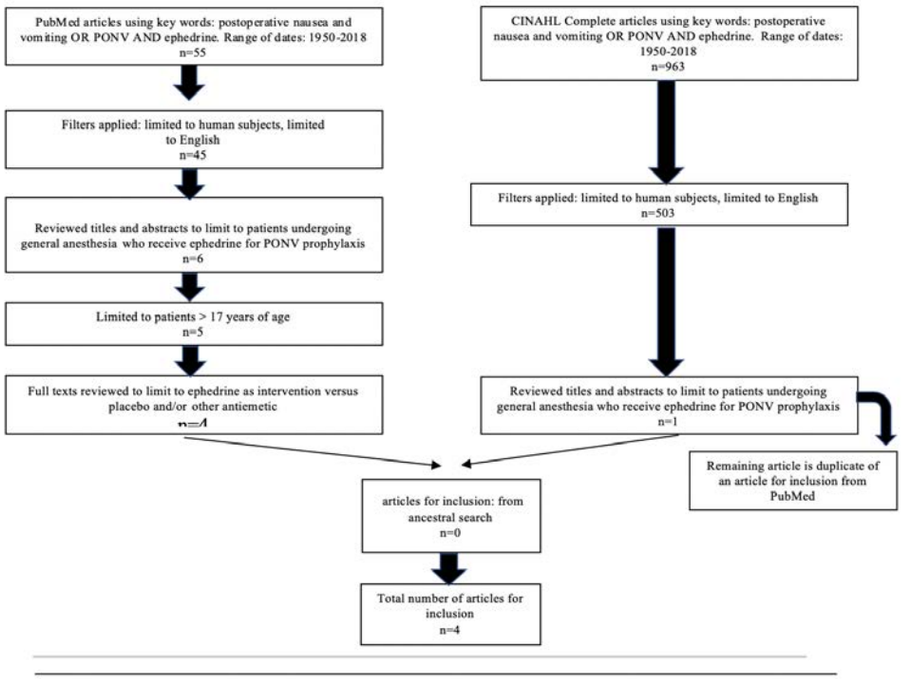

Figure 1. Graphical display of literature search

A comprehensive literature search included a search of both PubMed and Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases. The search in PubMed included the key words postoperative nausea and vomiting OR PONV AND ephedrine, with OR and AND acting as Boolean operators. This search yielded 55 results with a range of dates from 1950 to 2018. The 55 results were filtered to only include studies on human subjects and studies in English, which left 45 articles. The remaining 45 articles' titles and abstracts were reviewed to limit to subjects undergoing general anesthesia receiving ephedrine for PONV prophylaxis. This reduced the number of included studies to six. Of the remaining six articles, one was excluded because it was a case study. Another was excluded because it involved pediatric subjects. The four remaining articles were RCT's that fit the requirements posed by the research question, and, thus, included for review (see Figure 1). A search in CINAHL Complete database yielded similar results. Using the key words: postoperative nausea and vomiting OR PONV AND ephedrine with a range of dates from 1950 to 2018, the search generated 963 results. The same filters used for PubMed database were also used for CINAHL Complete. After reviewing titles and abstracts to fit the research question, one article remained. This article was a duplicate of one of the four articles for inclusion from the PubMed database. An ancestral search did not yield additional articles for inclusion in the review (see Figure 1). Thus, the total number of articles for review is four.

Critical Appraisal

The Joanna Briggs Institute (JBI) specializes in promoting and supporting evidence-based healthcare by providing access to resources for professionals in nursing, midwifery, medicine, and allied health. The JBI critical appraisal tool for randomized controlled studies was used to appraise each of the articles included for review.[9]

Data Analysis

Each article for inclusion was not without some omissions based on the JBI appraisal tool. Some of the concerns related to rigorous evaluation of the evidence was related to robust statistical analysis10, more control over potential confounding variables[4], methodological concerns and blinding11, and a shortened

Table 1 — Results of Ephedrine IM used for reduction in PONV

AUTHOR, YEAR	SURGICAL PROCEDURE	INTERVENTION	CONTROL / COMPARISON	RESULTS
Daabiss,M. 2008	Lap Cholecystectomy	Ephedrine 0.5mg/kg + Dexamethasone 5mg IM	Placebo –IV saline or Decadron 5mg IV	Ephedrine + Decadron group had less vomiting compared to placebo (p=.02) Ephedrine + Decadron group had less need for rescue antiemetic than Decadron alone (p=.01) No significant differences in VS among groups
Hagemann et al., 2000	Elective abdominal hysterectomy	Ephedrine 0.5mg/kg IM	Placebo-IV saline	Ephedrine group had less PONV in the first hour (p<.01) and third hour (p<.05) Ephedrine group had less need for rescue antiemetic at first and third hours (p<.05) No significant differences in PONV after three hours or blood pressure
Naguib et al., 1998	Lap gynecological or surgical intervention	Ephedrine 0.5mg/kg IM	Placebo-0.1ml/kg IV saline or propofol 0.25mg/kg IV	Ephedrine group had less vomiting and retching than propofol group (p<.05*) No statistically significant changes in HR, BP, SpO2 in PACU
Rothenberg et al., 1991	Outpatient gynecologic laparoscopy	Daabiss,M. 2008	Placebo IM or Droperidol 0.04mg/kg IM	Ephedrine group and Droperidol group had less reported PONV compared to placebo (p=.01) Ephedrine group and Droperidol group required less antiemetic therapy than placebo (p=.01) Ephedrine group had lower sedation scores in PACU compared to placebo and droperidol (p=.01) No significant differences in MAP among groups

VS: Vital Signs, MAP: mean arterial pressure

duration of outcomes measurement.[12] Each of the four studies in this review had internal validity concerns according to the JBI appraisal tool. However, each study is weighted equally due to a similar number of omissions across the board. As a result, the limited number of studies combined with the limited rigor associated with each study does not bolster the case for a push in treatment recommendations for ephedrine as a prophylactic agent for PONV. However, there is sufficient evidence from these studies that more research is warranted to support the use of ephedrine for PONV prophylaxis for patients undergoing general anesthesia.

RESULTS

A synthesis of the results of the four studies reviewed are found in Table 1. The studies differed in terms of type of surgical procedure, controls or comparison groups, and outcomes assessed. However, each author uses similar population sizes consisting of adult patients assigned a physical status (PS) of 1 or 2 undergoing general anesthesia for a surgical procedure, and each author evaluates the relationship between ephedrine and PONV.

Among the results provided in Table 1, of most important take home message is that in all four studies, groups treated with ephedrine had statistically significant less PONV than placebo groups. Additionally, Naguib et al.12 reported the ephedrine group had statistically significant less PONV than the propofol group, and Daabiss9 reported statistically significant less PONV in the combination group compared to the decadron group. Other notable results include the fact that ephedrine did not have a statistically significant effect on cardiovascular parameters compared to placebo, droperidol, decadron, or propofol as reported by the corresponding study. Hagemann et al.4 was the only study to suggest how long ephedrine's efficacy extends into the postoperative period. An unexpected outcome of the study by Rothenberg et al.[11] indicated the ephedrine group had statistically significant lower sedation scores than the droperidol or placebo groups. While droperidol has fallen out of favor after receiving a black box warning, it is not the only antiemetic to cause sedation, and ephedrine's favorable efficacy combined with it's low side effect profile should be considered when choosing an anti-emetic.

DISCUSSION

All four studies reviewed indicate ephedrine is a viable option for PONV prophylaxis for adult patients assigned a PS 1 or 2 undergoing general anesthesia, and all four studies found no statistically significant changes in cardiovascular parameters. However, because patients with cardiovascular disease were excluded from each of the studies, it remains unknown whether ephedrine is a safe antiemetic for this population. In each of the studies, anesthesia providers administered

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#ILCRNAWEEK2019

Josh Newman, CRNA, PR Committee Chair | Susan Krawczyk, CRNA, PR Committee Co-Chair

National CRNA Week was established by the American Association of Nurse Anesthetists (AANA) to encourage CRNAs to educate the public about anesthesia safety, questions to ask prior to undergoing surgery, and the benefits of receiving anesthesia care from a nurse anesthetist, (AANA).

Every year, the Public Relations (PR) Committee begins planning CRNA Week months ahead of time. Our group strategically chose a billboard space and then created a stunning billboard design. In addition, we designed and ordered greeting cards to send to all IL legislators… including your IL senator and representative. All month long, our board members worked on writing and submitting press releases that highlighted CRNA Week and the value that CRNAs contribute to health care in Illinois, as well as creating video messaging to post on social media. It was a busy time!

This year the IANA highlighted what was happening behind the scenes leading up to CRNA week; what the IANA was doing in preparation; as well as what members could do to participate in the activities. We used the national 2019 CRNA Week slogan to reinforce our concept. In the end, we had a fun and spirited month-long calendar of events, celebrating and highlighting CRNAs in Illinois.

Week 1 - Every Breath: IL CRNAs making our names known

During this week, we literally put our name out there for all to see. We had a billboard on I-294 (north facing, in Schiller park) featuring IL CRNA Deana Giacalone during the months of January and February. We sent all IL legislators New Years greeting card, and we sent out numerous press releases to local media bringing attention to IL CRNAs and CRNA Week. IL CRNA stories were picked up and written about 7 times in the media (print and electronic) during the month of January.

Week 2 - Every Beat: IL CRNAs don't skip a beat putting a face to our name

In our second week we featured light-hearted contests to help put a face to our name. All contest winners were randomly chosen by Josh Newman, PR Committee chair. IL CRNA

Cassie Ishmael won the CRNA contest.

Students from Rosalind Franklin won the SRNA contest. A shout out to all SRNAs who contributed, including Brianna McNamarra- Campos, Amanda Hempel, and Ryan Lewandowski from NorthShore; Erica Jacobs from Rush; Bart Bowers from SIUE; and Olatunde Akinwale, Angela Vo, Jacob Trzaskos, and Vansa Kamar from Rosalind Franklin.

We also got creative during the month by fashioning IL CRNA word art from all thing's anesthesia…and more. Jon Gestl's ILCRNA word art entry was chosen as a winner.

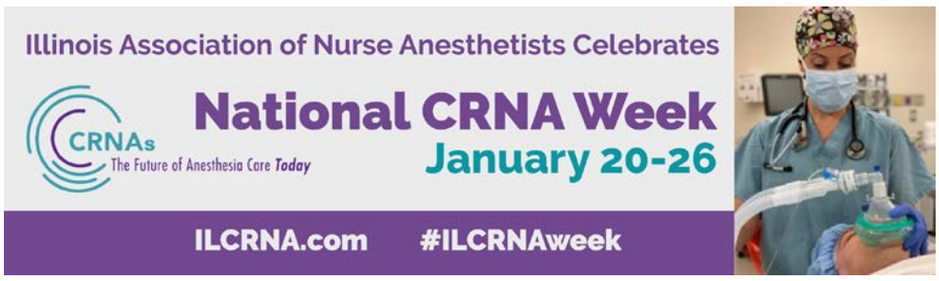
Week 3 - Every Second: IL CRNAs showing our value in a variety of settings

In the third week, we featured a contest to show IL our value outside of the OR. IL CRNA Bernadette Roche won the service contest. We also encouraged all CRNAs to reach out to their alma mater nursing schools and high schools to offer an advance practice nursing career talk or demonstration. This is a value that is always welcomed by the schools.

Week 4 - Here we are - Happy CRNA Week

During week 4 we celebrated CRNA week. We hope you enjoyed the IANA's CRNA Week activities this year. If you have ideas for next year, please join the PR committee for the planning of 2020 CRNA Week.

Thank you to the members of the PR Committee who kept the month-long activities going strong: Bart Bowers, SRNA; Megan Morrow, CRNA; Jon Gestl, CRNA. Thank you to the IANA Board Members for their contributions and video messaging.



CRNAS IN THE MEDIA 2019

JAN 3 - DAILY HERALD

Nurse Anesthetists: Always There, caring for Illinois since 1880 *[submitted by Jennifer Greenwood]*

- The Daily Herald highlights IL CRNA Jennifer Greenwood & the history of CRNAs in IL.

JAN 10 - ANESTHESIA E-SSENTIAL VITAL SIGNS

- IANA efforts recognized early on by the AANA.

JAN 15 – BCRNEWS

Princeton nurse anesthetist featured on I-294 billboard *[submitted by Jon Gestl]*

- The Bureau County Republican identified IL CRNA Deana Giacalone as the nurse behind the surgical mask pictured on a 60-by-20-foot digital billboard along Interstate 294 in the Chicagoland area & discussed the importance of CRNAs in IL.

JAN 16 - MY JOURNAL COURIER

Hospital develops recovery, care program *[submitted by Josh Newman]*

- IL CRNA Josh Newman, anesthesia department manager at Passavant in Jacksonville, IL discusses his role in starting ERAS programs at the hospital.

JAN 17 – THE HINSDALEAN

Ask an Expert *[submitted by Darlene Bingham]*

- Hinsdale resident & IL CRNA Susan Krawczyk, discusses the role nurse anesthetists play in the delivery of anesthesia care in Illinois.

JAN 22 – MY JOURNAL COURIER

CRNAS Work to Make Life Less Painful *[submitted by Josh Newman]*

- Passavant Area Hospital IL CRNAs (Jacksonville, IL) featured discussing the role of nurse anesthetists.

JAN 25 – NORTHSHORE PULSE

Nurse Anesthesia Faculty Impact Global Health Care *[submitted by Susan Krawczyk]*

- The NorthShore intranet features IL CRNAs Bernadette Roche & Karen Kapanke & the NorthShore School of Nurse Anesthesia's initiatives to provide anesthesia services for vulnerable populations, conduct research to improve practice outcomes, and provide education in order to reduce global health care disparities.

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ephedrine prophylactically. Thus, the question as to whether or not it can be used as a rescue antiemetic remains unanswered.

This integrative review is limited by the relatively small numbers of RCT's on this topic. Additionally, PONV is a complicated phenomenon and controlling for confounding variables can be difficult from a design perspective. It would be imprudent to make a definitive treatment recommendation on this topic at this time; however, providers should feel confident to consider using ephedrine for PONV when caring for healthy, high risk patients. The evidence consistently points to ephedrine as an efficacious medication at our disposal.

CONCLUSION

Despite years of extensive research, PONV continues to plague patients, anesthesia providers, and hospitals alike. While a great deal is known about risk factors and effective treatment options, patients still experience PONV for a variety of reasons. There is limited research regarding the possibility of ephedrine as an antiemetic for general surgery as opposed to a wealth of research regarding its usefulness in parturient patients undergoing spinal anesthesia. While the off-label use of ephedrine as an antiemetic for patients undergoing general anesthesia is not uncommon among anesthesia providers, highly rigorous evidence to support its use is lacking. The limited number of RCT's available reveal promising results regarding the use of ephedrine for PONV prophylaxis. However, the combination of limited available RCT's and lack of robust design in these studies suggest a need for more research.

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LOBBYIST UPDATE

The 2018 General Election produced the biggest electoral changes in the Illinois history. The state now has a new Democratic Governor, a new Democratic Attorney General and a State House with 30% new members. The new General Assembly is also highly diverse. Women make up 37.3% of the House and 33.0% of the Senate and people of color constitute about 25% of each chamber. Governor Pritzker and the 101st General Assembly will likely look to make a quick impact and pursue a more progressive agenda for the State. Consequently, as Democrats look to increase access to quality health care, there could be substantial changes to the practice of medicine in the state – including changes to scope of practice for various professions.

IANA SCOPE OF PRACTICE LEGISLATION – SENATE BILL 1683 AND HOUSE BILL 2813

In addition to tracking and monitoring bills, the IANA and its lobbyists are pursing legislation that would increase the scope of practice for Nurse Anesthetists. We have already introduced our bill in the House and Senate and have begun to lobby with members of the General Assembly.

2018 Spring Session NEW BILLS

By the end of the bill filling deadline, there were 3,000 bills filed in the House and over 2,000 bills filed in the Senate. Below we discuss a few of the many healthcare measures being tracked by your IANA Government Relations Committee this Spring Session:

HB1459 · NURSE LICENSURE COMPACT (FEIGENHOLTZ)

Amends the Nurse Practice Act. Ratifies and approves the Nurse Licensure Compact, which allows for the issuance of multistate licenses that allow nurses to practice in their home state and other compact states. Provides that the Compact does not supersede existing State labor laws.

IANA POSITION: SUPPORTS

HB1592 · NURSING DEGREE PILOT PROGRAM (BRISTOW)

Amends the Public Community College Act. Allows the Board of Trustees of Community College District No. 508 to establish and offer at Malcolm X College and the Board of Trustees of Community College District No. 536 to establish and offer at Lewis and Clark Community College a baccalaureate-level nursing education pilot program that confers a bachelor of science degree in nursing upon the meeting of specified conditions. Requires the Illinois Community College Board to conduct a statewide evaluation of the nursing program and report on the results of the evaluation by July 1, 2023; specifies evaluation requirements.

IANA POSITION: OPPOSES

HB3027 · MEDICAID-ADJUNCTIVE DENTAL (WILLIS)

Amends the Medical Assistance Article of the Illinois Public Aid Code. Provides that the medical assistance program shall cover charges incurred, and anesthetics provided, in conjunction with dental care that is provided to an individual in a hospital or an ambulatory surgical treatment center if the individual is otherwise eligible for medical assistance and any of the following applies: (1) the individual has a medical condition that requires hospitalization or general anesthesia for dental care; or (2) the individual is a person with a disability. Provides that the medical assistance program shall cover charges incurred, and anesthetics provided by a dentist with a permit provided under the Illinois Dental Practice Act or by a physician licensed under the Medical Practice Act to practice medicine in all of its branches… Defines "developmental disability". Requires the Department of Healthcare and Family Services to reimburse providers of services covered under the amendatory Act at the same rates as the Medicare program's rates for similar services.

IANA POSITION: OPPOSES

HB3585 · HOSPITAL PATIENT PROTECTION (MAH)

Creates the Hospital Patient Protection Act. Provides for minimum direct care registered professional nurse-to-patient staffing ratios in hospitals, long-term acute care hospitals, and ambulatory surgical treatment centers. Prohibits a hospital, long-term acute care hospital, and ambulatory surgical treatment center from interfering with a nurse's exercise of those rights, and prohibits other retaliatory or discriminatory action by a hospital. Amends the Hospital Licensing Act and the Nurse Practice Act to provide that in the case of a conflict between a provision of either of those Acts and a provision of the Hospital Patient Protection Act, the Hospital Patient Protection Act shall control.

IANA POSITION: UNDER REVIEW

SB132 · MEDICAL IMPLICIT BIAS TRAINING (HUTCHINSON)

Amends the Nurse Practice Act and the Medical Practice Act of 1987. Requires the Department of Financial and Professional Regulation to adopt rules to include implicit bias training in the continuing education requirements for licensees under the Acts. Defines "implicit bias". Effectively immediately.

IANA POSITION: OPPOSES

SB152 · NURSE LICENSURE COMPACT (MARTINEZ)

Amends the Nurse Practice Act. Ratifies and approves the Nurse Licensure Compact, which allows for the issuance of multistate licenses that allow nurses to practice in their home state and other compact states. Provides that the Compact does not supersede existing State labor laws.

IANA POSITION: SUPPORTS

ROSALIND FRANKLIN UNIVERSITY OF MEDICINE AND SCIENCE

DEPARTMENT OF NURSE ANESTHESIA

Greetings from just a little north of Chicago. Things are busy and exciting here at RFUMS. I am happy to report the following updates to the IANA membership.

Faculty News: We are please to announce that Dr. Lori Anderson has been selected from a national slate of candidates to serve on the Board of Directors of the NBCRNA as an Educator Member. Lori started this prestigious position in October and will serve in this capacity for 3 years. Dr. Jennifer Greenwood has joined our faculty as the Director of Research for our program. We are very pleased that she agreed to join us full time and lead the research efforts of our students and faculty. Dr. Michael Ledvina has also joined us as full-time faculty. Mike is our Director of Simulation and is very busy developing an outstanding simulation program that spans 9 months during the didactic component of our program.

Student News: Rachel Heise, SRNA has been selected to serve as an AANA Foundation Advocate and will serve us for the next two years. We also congratulate Brian Nygard, SRNA, who received the AANA GALA scholarship. We are wrapping up the interviews for our next cohort and we are very excited by the number and quality of the applicants we are receiving.

Program News: Our simulation activities are being hosted in our state-of-the-art simulation center in Huntley, IL. Our students spend one 8-hour day each week in the simulation center during the last 9

months of their didactic program of study. In addition to training students, we have been able to offer several workshops to the Advanced Practice and Medical Staff of the Northwestern-Huntley Medical Center. So far, we have offered ultrasound vascular access and advanced airway management courses for them. As you can see, our students also reaped the benefits of these hands-on learning opportunities!

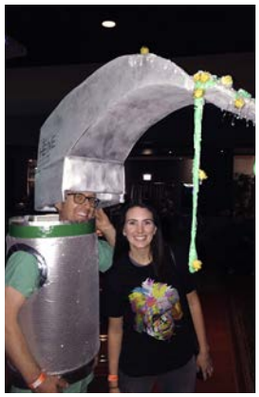
Our university continues to be an affiliate group for the Johanna Briggs Institute. This is an international collaboration of over 80 entities across the world working to accelerate the linkage of scientific evidence to policy and practice. We currently have several ongoing projects within the JBI framework with one published and several on the way. We are continuing to maintain our long-term sustainable relationship with a healthcare organization in St Lucia. 10 of our students have completed 1-month clinical rotations on the island. This has been well received by both the students and the clinical site. Sodium Thiopental is no longer just a historical drug for many of our students as they have the opportunity to actually administer it. Brings back memories, doesn't it....

Sincerely,
Franklin McShane, DNP, CRNA, APNP
Chair and Program Director

Fall Meeting at Northwestern Memorial Hospital

The 2018 fall IANA meeting took place at Northwestern Memorial Hospital. Thank you to everyone who attended to make this an outstanding meeting! We were pleased to welcome a variety of national speakers who shared their wealth of knowledge on the business of anesthesia. This is always a hot topic! Additional topics included strategies to prevent anesthesia errors, exploring independent practice, evidence based practice strategies, current legal issues in anesthesia, and the horizon of anesthesia assistants.

In addition to a great meeting full of important content, many of the attendees put on a costume in support of the PAC fundraiser. The event was a Halloween bowling party at Lucky Strike in Chicago. It was a fun evening of high bowling scores and amazing costumes!



The spring 2019 meeting will be held on May 18th in Champaign. We look forward to another informative meeting that will be worth 6 class A credits. Stay tuned for details regarding speakers, topics, and registration.

Start planning now for the Fall 2019 meeting, which will take place at Northwestern Memorial Hospital the weekend of September 14th and 15th. We are excited to offer an airway workshop at this meeting.

MARK YOUR CALENDARS!!

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