



Christopher Boe, MD, FACEP
President

[Adriana Alvarez](#)
Executive Director
Phone: (800) 798-1822
Fax: (972) 767-0056

From the President **Christopher Boe, MD, FACEP**

We have started planning for the upcoming national [leader visit](#) in November. We look forward to hearing about **Well-Being in EM: Avoiding Burnout and Promoting Resilience** from [Dr. Jay A. Kaplan](#) current President of the College. More details about this visit will be provided via email.

In the meantime, we always look forward to hearing about how the North Dakota ACEP Chapter can help you and for your suggestions on ways to improve the chapter. If you have any ideas, please send us an [email](#).

From the Secretary-Treasurer **Sarah McCullough, MD, FACEP**

Intranasal Medications for Needleless Delivery of Medications

Starting an IV is not always the fastest or easiest process, and certainly not painless. Intranasal (IN) drug delivery has been used for years, but experience with this type of administration and the clinical uses have been increasing. If you are not familiar with IN drug administration you should consider giving it a try. Most of the information for this article is from the website "intranasal.net" so stash this in your peripheral brain for future use.

Most IN medication use is "off label" so is lacking FDA or other government approved indications for IN deliver. This is not uncommon with estimates of 7.5-40% of adult drug usage and as high as 80% of pediatric inpatient drug usage being off label. The process of obtaining FDA approval takes time and is expensive so it is unlikely that FDA approval will be obtained for IN use of drugs that we already have available. There is increasing literature and trials to support its use. There are multiple advantages of IN administration. Since no IV needs to be placed it is less painful and less time consuming. The nasal mucosa is highly vascular so medication is rapidly absorbed into the bloodstream and CSF for quick onset of effect. There is no first-pass metabolism by the GI or hepatic pathways as there is with oral administration. There is high patient tolerance of this type of drug administration. It is easy, convenient, and safe. Clinical uses include seizure therapy, pain control, migraines, sedation, opiate overdose, epistaxis, hypoglycemia, and topical anesthesia.

Proper technique will improve effectiveness of delivery. Several factors to consider are volume administered, particle diameter, spray vs drip administration, condition of the site of absorption, lipophilicity and molecular weight of the drug, and underlying medical conditions. It is best to use the most concentrated form of the drug as there is less run off with reduced volume. One fourth to one third ml per nostril is best. The total dose should be divided between each nostril. No more than 1ml per nostril should be used. If more is needed, deliver 1ml every 10-15 minutes. The medication can be given by drip or atomizer. The atomizer attaches to a syringe and allows rapid administration into each nostril. It breaks down the medication to small particles which are more easily absorbed. Be sure to allow for the dead space in the delivery device so that the proper dose is administered. If the patient can lay down with neck extended this is optimum position, particularly if the drip method is being used. It may be helpful to suction the nasal passages prior to administration so that the mucosal surface is clear for absorption.

Midazolam is one of the more common medications given intranasally. It can be given for sedation, anxiolytics, or seizures. Dosages range from 0.2mg/kg 0.5mg/kg per dose with a maximum of 10mg. It is always best to use the 5mg/ml concentration for IN administration. Apparently midazolam can be irritating to the mucosa so one suggestion is to pretreat with lidocaine 4% 0.5ml IN. Lorazepam has been given at 0.1mg/kg to a maximum dose of 4mg. Fentanyl is a highly lipophilic, low molecular weight drug so is ideal for IN use. Its dosage is 1mcg/kg with maximum dose of 100mcg. This medication is ideal for patients who do not have an IV and require pain management. I have successfully used it along with midazolam for a shoulder reduction in an elderly female who did not have an IV.

Reversal agents flumazenil and naloxone can also be given IN. Remember to use the 2mg/ml concentration of the naloxone and not the 0.4mg/ml concentration.

Ketamine is being given by IN administration. Dose ranges from 1-9mg/kg with no routine dose yet defined. Ongoing trials will help determine the best dose and this will be helpful for use of this popular emergency department drug.

Glucagon can be given IN. It is mixed with the sterile water that comes in the package, but there is improved absorption if mixed with an absorptive enhancer which is not readily available in the emergency department. This makes its IN use less convenient.

Oxymetazoline (generic Afrin) has been studied for IN administration to treat nosebleeds and has been found to be successful. This may have some implication for home treatment of nosebleeds. For physicians it was effective to prevent bleeding during nasal procedures. In the emergency department it might be used prior to NG tube placement or prior to nasal tracheal intubation. Perhaps it could be an adjunct for management and treatment of nosebleeds in the emergency department.

Topical anesthesia can be administered intranasally for nasopharyngeal procedures such as NG tubes, nasal intubation, and nasal fiberoptic procedures. An alternate indication might be to treat selected migraines and cluster or ice pick temporal headaches by blocking the sphenopalatine ganglion in the nasal cavity. There can be toxicity with lidocaine so be sure to adhere to the 4mg/kg max dose and up to 7mg/kg if combined with epinephrine. Allow 3-5 minutes after administration to allow it to take effect. Use the 4% lidocaine concentration. An adult dose would be 4.5ml of the 4% solution (adjust accordingly based on weight in children). Use an atomizer to administer 1.5ml in the nostril that is to be used. Have the patient inhale during administration if they are able. Then spray 3ml through the mouth into the throat. Have them gargle and swallow. Squeeze lidocaine jelly or viscous lidocaine in to the nostril with a syringe or the nasal atomizer prior to passing the tube.

A multitude of other medications have been tried by IN administration and the potential for IN use is enormous. At this time, opiates, benzodiazepines, and topical anesthetics are the most commonly used IN drugs in the emergency department. If you are not yet a fan of IN drug administration, consider its use prior to suturing or reducing a fracture in your next pediatric patient. I think you might like it.

Adriana's Corner

Please send me an [email](#) if you need help with any chapter related business. I am happy to help!

2016 Scholarship Award



From Left to Right: Joshua Wynne, MD, MBA, MPH Dean of the UND School of Medicine and Health Sciences; Nathan Brunken, Scholarship Award Recipient; Joycelyn Dorscher, MD Associate Dean, Student Affairs and Admissions

Congratulations to this year's recipient of the North Dakota ACEP Chapter Medical Student Scholarship Award: **Nathan Brunken!**

This scholarship is awarded to a graduating medical student entering emergency medicine residency. If you are a medical student, a member of the chapter and would like to be awarded the scholarship, send the chapter an [email](#) with reasons you feel you should be awarded the scholarship. The next scholarship will be awarded in: **April, 2017.**

ACEP & Chapter Upcoming Events: Update

ACEP16 Las Vegas

The official dates are October 16-19 and registration is open.

Also, in Las Vegas, the chapter is planning a **Chapter Member Benefit Event**, a small gathering to meet, get together and socialize.

If you will attend [ACEP16](#), let us know by sending the chapter an [email](#).

Clinical News

Avoid Airway Catastrophes on the Extremes of Minute Ventilation

Emergency airways commonly involve challenges of tube placement and oxygenation before and during the procedure. There are a handful of instances, however, when the issue is ventilation and, more specifically, extremes of minute ventilation. Minute ventilation is the amount of air the patient moves in one minute; it is a product of the ventilatory rate and tidal volume (minus dead-space ventilation).

[Read more](#)

When to Use Fluoroquinolones in Pediatric Patients

The best questions often stem from the inquisitive learner. As educators, we love—and are always humbled—by those moments when we get to say, “I don’t know.” For some of these questions, some may already know the answers. For others, some may never have thought to ask the question. For all, questions, comments, concerns, and critiques are encouraged. Welcome to the Kids Korner.

[Read more](#)

Benzodiazepine Prescriptions, Overdose Deaths on the Rise in U.S.

Even as opiate abuse has become a growing problem in the U.S., overdose deaths involving sedatives and antiseizure medications in the benzodiazepine category have also risen steeply, according to a recent study. Prescriptions for benzodiazepines have more than tripled and fatal overdoses have more than quadrupled in the past 20 years, researchers found.

[Read more](#)

Make A Difference: Write That Council Resolution!

Many College members introduce new ideas and current issues to ACEP through Council resolutions. This may sound daunting to our newer members, but the good news is that only takes two ACEP members to submit a resolution for Council consideration. In just a few months the ACEP Council will meet and consider numerous resolutions.

ACEP’s Council, the major governing body for the College, considers resolutions annually in conjunction with Scientific Assembly. During this annual meeting, the Council considers many resolutions, ranging from College regulations to major policy initiatives thus directing fund allocation. This year there are 394 councillors representing chapters, sections, AACEM, CORD, EMRA, and SAEM.

The Council meeting is your opportunity to make an impact and influence the agenda for the coming years. If you have a hot topic that you believe the College should address, now is the time to start writing that resolution.

I'm ready to write my resolution

Resolutions consist of a descriptive Title, a Whereas section, and finally, the Resolved section. The Council only considers the Resolved when it votes, and the Resolved is what the Board of Directors reviews to direct College resources. The Whereas section is the background, and explains the logic of your Resolved. Whereas statements should be short, focus on the facts, and include any available statistics. The Resolved statement should be direct and include recommended action, such as a new policy or action by the College.

There are two types of resolutions: general resolutions and Bylaws resolutions. General resolutions require a majority vote for adoption and Bylaws resolutions require a two-thirds vote. When writing Bylaws resolutions, list the Article number and Section from the Bylaws you wish to amend. The resolution should show the current language Bylaws language with additions identified in bold, green, underline text and red strikethrough for any deleted text. Please refer to the ACEP Web site article, "Guidelines for Writing Resolutions," for additional details about the process and tips on writing a resolution.

I want to submit my resolution

Resolutions must be submitted by at least two members or by any component body represented in the Council. The national ACEP Board of Directors or an ACEP committee can also submit a resolution. The Board of Directors must review any resolution from an ACEP committee, and usually reviews all drafts at their June meeting. Bylaws resolutions are reviewed by the Bylaws Committee to ensure there are no conflicts with the current Bylaws. Any suggestions for modifications are referred back to the authors of the resolution for consideration. Resolutions may be submitted by mail, fax, or email (preferred). Resolutions are due at least 90 days before the Council meeting. This year the deadline is July 27, 2015.

Debating the resolution

Councillors receive the resolutions prior to the annual meeting along with background information and cost information developed by ACEP staff. Resolutions are assigned to reference committees for discussion at the Council meeting. You, as the author of your resolution, should attend the reference committee that discusses your resolution. Reference committees allow for open debate and participants often have questions that are best answered by the author. At the conclusion of the hearings, the reference committee summarizes the debate and makes a recommendation to the Council.

The Council considers the recommendations from the reference committees on the second day of the Council meeting. The reference committee presents each resolution providing a recommendation and summary of the debate to the Council. The Council debates each resolution and offers amendments as appropriate. Any ACEP member may attend the Council

meeting, but only certified councillors are allowed to participate in the floor debate and vote. Non-councillors may address the Council at the discretion of the Speaker. Such requests must be submitted in writing to the Speaker before the debate. Include your name, organization affiliation, issue to address, and the rationale for speaking to the Council. Alternatively, you may ask your component body to designate you as an alternate councillor status and permission for Council floor access during debate.

The Council's options are: **Adopt** the resolution as written; **Adopt as Amended** by the Council; **Refer** to the Board, the Council Steering Committee, or the Bylaws Interpretation Committee; **Not Adopt** (defeat or reject) the resolution.

Hints from Successful Resolution Authors

- Present your resolution to your component body for sponsorship consideration prior to the submission deadline.
- Consider the practical applications of your resolution. A well-written resolution that speaks to an important issue in a practical way passes through the Council much more easily.
- Do a little homework before submitting your resolution. The ACEP website is a great place to start. Does ACEP already have a policy on this topic? Has the Council considered this before? What happened?
- Find and contact the other stakeholders for your topic. They have valuable insight and expertise. Those stakeholders may co-sponsor your resolution.
- Attend debate concerning your resolution in both reference committee and before the Council. If you cannot attend, prepare another ACEP member to represent you.

I need more resources

Visit [ACEP's website](#). Review the "Guidelines for Writing Resolutions" prior to submitting your resolution. There is also information about the Council Standing Rules, Council committees, and

Councillor/Alternate Councillor position descriptions. Of special note, there is a link to Actions on Council Resolutions. This link contains information about resolutions adopted by the Council and Board of Directors in prior years.

Well, get to it

Writing and submitting Council resolutions keeps our College healthy and vital. A Council resolution is a great way for members to provide information to their colleagues and ACEP leadership. Please take advantage of this opportunity and exercise your rights as part of our Emergency Medicine community. Dare to make a difference by submitting a resolution to the ACEP Council!

ACEP's 2016 "Leadership & Advocacy Conference" brings hundreds of Emergency Physicians to Washington, DC and Capitol Hill

A record number of nearly 600 emergency physicians visited with federal legislators and staff on Capitol Hill on May 17 during the ACEP 2016 Leadership and Advocacy Conference in Washington, DC. Conference attendees (including residents and many first-timers) from 47 states, the District of Columbia and Puerto Rico participated in 405 meetings in Capitol Hill offices with legislators and/or their health care staff.

The conference touched on several important topics such as ACEP's Registry (CEDR), recently released regulations shaping the new physician payment system, strategies to deal with out of network billing issues and the importance of physician involvement in the political process. During ACEP's "Lobby Day" on Capitol Hill, ACEP members:

- Asked legislators to re-engage legislative efforts to expand access to psychiatric services and provide appropriate mental health resources for constituents and patients with mental illness.
- Informed legislators and staff on emergency medicine principles for opioid prescribing.
- Asked legislators to "co-sponsor" bipartisan legislation to protect the current practice of using written "standing orders" by physician medical directors overseeing care provided in the field by paramedics and other EMS practitioners.
- Thanked the 100 plus sponsors of the "Health Care Safety Net Enhancement Act of 2015" (H.R.836/S.884), legislation that provides medical liability relief for physicians providing care under the EMTALA mandate, and asked other legislators for support.
- Invited legislators and their staff to visit a local Emergency Department.

The Lobby Day issue papers are available on the [ACEP Advocacy website](#) with your ACEP login credentials.

ACEP President Dr. Jay Kaplan introduced LAC attendees to a brand-new advocacy platform powered by Phone2Action. The tool has many uses including social integrations, telephone services, and email tools that provide multiple ways to engage with lawmakers on critical public policy issues. Several state chapters have already utilized Phone 2 Action for advocacy campaigns on the state level.

During LAC, participants used the platform to alert legislators that ACEP members were coming to Capitol Hill and to provide materials in advance on the key issues that would be discussed in the meetings. In just a few minutes time, simply by using their smartphones, LAC attendees sent more than 1,200 communications to legislators instantly via email, Twitter, and Facebook.

[Watch Dr. Kaplan cheer on LAC attendees as their messages were sent live to legislators from all over the nation.](#)

If you were unable to attend the LAC16 Conference this year, you can participate in ACEP's "Virtual Lobby Day" by visiting the [ACEP Grassroots Advocacy Website](#) and clicking "Take Action."

Update on ACEP 911 Grassroots Network "Triple E" Campaign

Although the "[Triple E Campaign](#)" contest concluded last year, our work isn't over! Efforts to "**Expand – Enhance – Engage**" participation in the 911 Legislative Grassroots Network are ongoing.

Several chapters and organizations were recognized during ACEP15 for their [outstanding efforts](#) during the campaign:

- Arizona Chapter ACEP (AzCEP),
- Emergency Medicine Residents' Association (EMRA),
- Michigan College of Emergency Physicians (MCEP),
- North Carolina College of Emergency Physicians (NCCEP), and
- Texas College of Emergency Physicians (TCEP).

ACEP continues to seek new participants in the 911 Network and there are still congressional districts that do not have ACEP member representation in the 911 Network. View current Chapter progress and encourage ACEP members to sign-up with their login credentials on the [ACEP Grassroots Advocacy Center here.](#)

North Dakota ACEP Chapter
c/o National ACEP
1125 Executive Circle
Irving, Texas 75038-2522

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