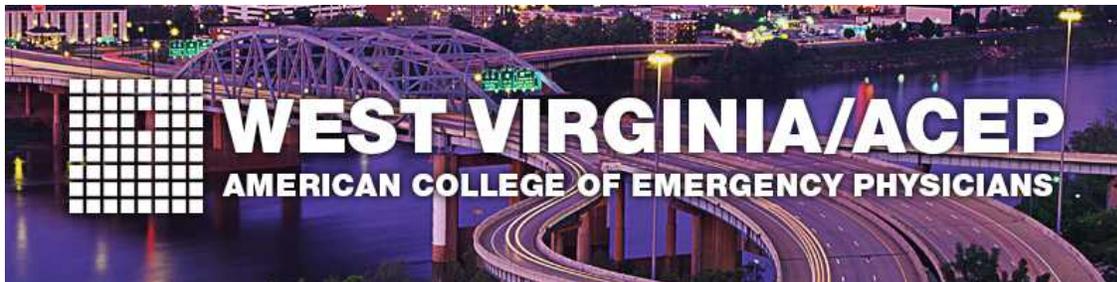


A Newsletter for the Members of the West Virginia Chapter

December 2017



Debra Paulson, MD, FACEP, President

Darby Copeland, Ed.D, RN, NRP, Executive Director

Jared Estock, PT, DPT, CIDN, Deputy Executive Director

Phone: 866.498.2237

From the President **Deb Paulson, MD, FACEP**

The West Virginia Chapter of the American College of Emergency Physicians continues to be a strong “small” chapter. This is thanks to those who have gone before and those that continue to build the chapter. I would like to recognize and thank the Councilors past and current as well as the current Executive Director, Darby Copeland and Deputy Director, Jared Estock for their stewardship on behalf of our membership.

As a result of my new role as the President of the West Virginia College of Emergency Physicians, there has been some reflection regarding the changes in Emergency Medicine since the residency; the good, the not so good, and the not so pretty.

The good is always that Emergency Medicine is the best job ever, the sense of adventure every day of work. Not knowing what might present and feeling prepared to manage the challenging patients is still a thrill. Advances in the management of acute myocardial infarction, acute stroke

and sepsis are examples of progress in the management of disease which at the time of my residency really had limited intervention.

The not so good, the Electronic Health Record which takes time away from the bedside in order to complete the mandated documentation. Personally, I have mixed feelings about the Electronic Health Record. It contains pages and pages of information, important for billing, but using it to communicate information from one provider to another, one center to another often fails to meet expectations. The nuances specific to an individual patient are lost in the macro/dot-phrase documentation aids. I do miss the good old "SOAP" (Subjective, Objective, Assessment, Plan) note.

The good, West Virginia participating emergency departments using the electronic health record will hopefully in the near future offer Pre-manage (EDIE). This will provide alerts regarding the patient's recent visits, emergency department visits over the past year, recent imaging, and controlled substance prescriptions. This has the potential to save radiation exposure to patients who may not be aware of the risks in seeking care at multiple facilities and save health care dollars when studies are not repeated, as well as alerting the provider to prior evaluations for the same/similar complaint.

The not so pretty, is the opioid epidemic which has left a large proportion of our population either at risk for complications of the disease or trying to find treatment in a system with limited and overtaxed resources.

The good, the American Board of Emergency Medicine (ABEM) is currently looking at the Maintenance of Certification (MOC) process and the Continuing of Certification (ConCert) Exam process. They are seeking for input from the individual chapters. If anyone has any thoughts about the process that they would like to share with ABEM, please [relay them to me](#) so I can share those thoughts with the representatives.

The not so pretty includes the recent incident in Las Vegas. Can we ever be prepared enough for such an event? Will something of a similar scope happen in our back yard?

The not so good, includes the uncertainty about health care coverage for our patients. This is crucial in West Virginia.

The good is an optimism regarding the future of WV ACEP. There are some bright, committed young physicians to carry the chapter forward.

During the West Virginia ACEP Summit Dr. Goode, challenged our membership to donate to

the West Virginia PAC. The Board of West Virginia ACEP has pledged to match the donations up to \$3000. In this way we can influence the legislation important to our patients and our specialty.

Please feel free to contact me with any concerns, thoughts over the upcoming year.

The Future of Ultrasound Education: A Student's Perspective

Brandon Wilson, MD (1), Melinda Sharon, MPH (1), Joseph Minardi, MD (1,2)

1) Department of Emergency Medicine, West Virginia University, Morgantown, West Virginia, United States of America

2) Department of Medical Education, West Virginia University, Morgantown, West Virginia, United States of America

Ultrasound has been described as the stethoscope of the future, both excitedly by admirers and jokingly by detractors.(1-2) While I cannot see the stethoscope ever being fully replaced by the probe, ultrasound is quickly becoming a tool that contemporary medical students and residents are almost as familiar with as they are the bell and diaphragm. However, this is a relatively new development with focused ultrasound education only recently becoming part of some medical school curricula(3-4). Despite ultrasound being a well-established safe and rapid diagnostic tool that dramatically improves both patient care and satisfaction(5).

Ultrasound was once the exclusive domain of imaging specialists and for a few focused applications in primarily the obstetrical and cardiology fields; however, this is no longer the case as point of care ultrasound (POCUS) is now used in numerous fields with a variety of applications. It is also no longer a skill reserved for clinicians or residents in the later stages of their training. Ultrasound has been taught successfully to medical students, nurses, and EMS personnel.(3,6-7) Despite the increasing availability of ultrasound and the ease of its use, dedicated medical school curricula teaching POCUS is still uncommon with many medical professionals not receiving any training until they have entered their 3rd year of medical school.(4) This may be due to barriers preventing adoption of a required ultrasound education including cost, space, lack of trained faculty educators, and limited time in an already full curriculum.(8)

My own experiences with ultrasound over my four years as a medical student have been

overwhelmingly positive. The skills I acquired early in my education have greatly enhanced how I diagnose, treat and interact with patients and have become a fundamental part of how I practice medicine. These skills have immediate clinical utility and can play a role in every aspect of medical education including basic anatomy and physiology, clinical skills, interacting with patients and colleagues, research, and even teaching skills.

My first experience with ultrasound was during my first-year gross anatomy course. Each segment of anatomy was paired with ultrasound lectures and skills labs, where we practiced scanning. We were only the second class at West Virginia University to have ultrasound as a formal part of our curriculum. I can remember being excited, but somewhat confused. I knew ultrasound could evaluate the heart and pregnancies, but little else. I initially thought that we would be shown the machine, given a lecture on how clinicians could use this technology, and unless pursuing cardiology or obstetrics, would memorize for an exam and then forget. I was surprised when the first skills lab was on the musculoskeletal system. This application introduced me to ultrasound as a tool with uses beyond what I had previously considered. After learning musculoskeletal ultrasound, we began reviewing basic echocardiograms. Cardiac physiology and pathology was arguably one of the most difficult concepts in medical school. Using ultrasound to view the motion of the heart in real-time was invaluable. Learning echocardiograms and how to interpret basic pathology as first year students made me realize that ultrasound was not a skill for advanced clinicians, but had applications at every point in training.

During head and neck anatomy, I learned the application that solidified ultrasound as a keystone to my medical education: procedures. We discussed the numerous vital structures that all track closely together in the neck. It was incredibly difficult to separate the jugular from the carotid in a cadaver, let alone a living person. It seemed impossible that central lines were placed using anatomical landmarks and was a skill that would take years to learn. However, we were shown how ultrasound could help not only to diagnose but to treat. Procedures that were seemingly beyond my skill set as a medical student suddenly became feasible with ultrasound. It became clear that ultrasound was a skill that would become crucial to my future practice. Ultrasound was a fundamental part of how I learned during my first year in medical school, and shaped how I view physiology and anatomy by correlating the various functions and diseases with what I learned in ultrasound.

My second year of medical school ultrasound education was focused on refining skills I had learned as a first year, and putting them to use in specific ways. We were given the opportunity to use handheld ultrasounds, and encouraged to take them home to practice. This was particularly fun, as my father and brother are also physicians. When I showed them the various ways ultrasound could be used, they were impressed. Neither had received any ultrasound

education during their time in medical school, and they had little idea that it could be used to diagnose DVTs, inject joints, or diagnose abdominal aneurysms. I got a chance to demonstrate some of the more advanced techniques I had been learning, including looking for a sternal fracture in my sister.

Unfamiliarity with ultrasound was something I saw again during my second year clinical preceptorship. During this time, I was paired with an upper level resident, and we were assigned monthly ultrasounds. When we went to scan, we found that it was as much a learning process for our preceptor as it was us. Although she had some exposure during residency, she had none as a medical student. We were able to use the skills we had learned, and apply it to a scan with which we were less familiar. Ultrasound was wonderful in this sense, as it was very forgiving of making mistakes. We felt comfortable experimenting with our skills and learning how to produce the best images. With no radiation exposure or preparation needed we could be directly involved and contribute to patient care without fear that we were delaying or causing discomfort.

The third and fourth years of medical school were a chance to truly apply my ultrasound skills to real patients on a regular basis. My rotations on obstetrics and vascular surgery gave me ample opportunity to put my skills to use. I became more involved with assessing pregnancies and guiding instruments on obstetrics. During my vascular surgery rotation, I was able to assist during procedures, Doppler limbs, and trace blood vessels.

Figure 1. A POCUS teaching session at West Virginia University.



I was also able to further develop my ultrasound interests during my emergency medicine rotations and a clinical ultrasound elective. During these rotations, I was able to perform various scans ranging from FAST exams on trauma patients to biliary scans on patients with abdominal pain, all in an emergency setting where my images directly affected patient care. While ultrasound was common in my home institution, this was not the case at other hospitals I visited. My familiarity with ultrasound allowed me to be more involved during an rotation, and gave me a chance to share what I had learned with residents and faculty there. I had an introductory lecture on ultrasound with residents helping teach the practical portion. We were reviewing DVT scans and discussing how to locate the femoral vein. The resident who was teaching had only recently learned DVT scans, and was not as familiar with the anatomy or how to perform certain functions. Having learned femoral vein ultrasound as a first year, I had performed many DVT scans, and was able to help my fellow students identify the structures and some of the techniques for assessment of DVT, like augmentation and phasicity.

Becoming skilled with ultrasound was one of the earliest opportunities for me to be more than a passive observer in my medical education, giving me some of my earliest and most memorable interactions with patients. I frequently spent several hours in lab with the same models and learned how to converse and form relationships with patients. Patients seem to genuinely enjoy bedside ultrasound. It is often one of the few opportunities they get to have one-on-one time with their doctor with minimal interruptions. Often when I am scanning, it is my chance to discuss the non-medical aspects of their lives. It also provides patients with a chance to have a greater voice in their care. In my experience, being able to show patients their images as you collect them and interpret them often helps alleviate some of the stress their illness brings. Patients have told me that seeing first-hand what we are describing when we give them our assessment and plans puts them at ease. Going over the image specifics is a small way to strengthen the trust between my patients and me.

Some of the first interactions I had with clinicians also came through the ultrasound curriculum. One of my more memorable experiences was during my ICU rotation. Our patient needed a lumbar puncture, but due to a prolonged ICU stay, the patient was edematous, and it was difficult to palpate the spinous processes needed to accurately place the needle. When I suggested we attempt to use ultrasound to first find the spinous processes, both the residents performing the procedure and the supervising attending were surprised, as if they had never considered ultrasound as an option. It was a chance to try a new approach to a classic procedure that has been performed much the same way since its existence, and it was exciting as an intern to share something new with clinicians who were several years my senior.

Additionally, I have been able to interact with medical students and residents from various other programs through ultrasound education days, away rotations, interviews and visiting students.

One of the most surprising things was that what I had learned as a first-year medical student, many of my colleagues and peers had not received until their 4th or intern year, if at all. The ultrasound curriculum at other schools was often minimal, with only a few lectures and limited time to practice. It was difficult to understand that something that was so essential to my medical education that helped shaped my practice of medicine was missing from many others' curricula. I can remember feeling somewhat proud that my classmates and I were learning a skill that distinguished us from other medical students and shaped the physicians we became.

Although I am only a few months into my residency training, my ultrasound skills have continued to be an invaluable tool, one that I am as comfortable using as my stethoscope. It has strengthened my clinical decisions and enabled me to take greater ownership of my patients. My four years of ultrasound education has allowed me to incorporate bedside ultrasound in my initial assessment and plans for my patients. It has also helped shape my discussions with my colleagues and attendings. One of the more recent examples was a pediatric patient I had with an area of erythema and swelling in his inguinal crease. I was able to ultrasound the area, and noticed a fluid collection that was likely an abscess. Instead of reporting redness and swelling with a broad differential, I was able to provide a more accurate assessment, and objective findings that reinforced my diagnosis. This enabled me to prevent radiation exposure to the patient and also to determine that the best treatment was surgical drainage.

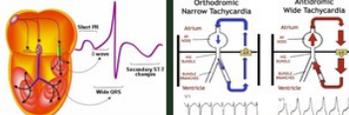
As an Emergency Medicine resident, I employ ultrasound daily, and it is evident to me that learning ultrasound as a medical student has influenced every aspect of how I practice and care for patients from diagnosing to treating. It has afforded me opportunities to interact with students, residents, faculty and even the public as a learner, a teacher, and an advocate.

Ultrasound as a general purpose medical tool will continue to become more commonplace, from large academic centers to urgent cares and community hospitals. Ultrasound is finding its place as a safe tool that dramatically changes how we care for patients and I can only see it continuing to improve. Basic ultrasound is a skill that every medical professional should be able to employ, and beginning training in medical school is something I wholeheartedly support.

References

- . Filly R. Ultrasound: The stethoscope of the future, alas. *Radiology*. 1988;167(2):400.
- . Geria RN, Raio CC, Tayal V. Point-of-Care ultrasound: not a stethoscope—A separate clinical entity. *Journal of ultrasound in medicine*. 2015;34(1):172-173. doi:10.7863/ultra.34.1.172.
- . Nelson BP, Hojsak J, Del Rossi E, Karani R, Narula J. Seeing Is Believing: Evaluating a Point-of-Care Ultrasound Curriculum for 1st-Year Medical Students. *Teach Learn Med*. 2017;(1):85-92.

- Bahner DP, Goldman E, Way D, Royall NA, Liu YT. The state of ultrasound education in U.S. medical schools: Results of a national survey. *Acad Med*. 2014 Dec;89(12):1681-1686.
- Howard ZD, Noble VE, Marill KA, et al. Bedside Ultrasound Maximizes Patient Satisfaction. *The Journal of Emergency Medicine*. 2014, 46:46-53.
- Heegaard W, Hildebrandt D, Spear D, Chason K, Nelson B, Ho J. Prehospital ultrasound by paramedics: results of field trial. *Academic emergency medicine*. 2010;17(6):624-630. doi:10.1111/j.1553-2712.2010.00755.x.
- Steinwandel U, Gibson NP, Rippey JC, Towell A, Rosman J. Use of ultrasound by registered nurses – A systematic literature review. *J Ren Care*. 2017 Jan;1-11.
- Hoppmann RA, Rao VV, Poston MB, et al. The Evolution of an Integrated Ultrasound Curriculum (iUSC) for Students: 9-year Experience. *Crit Ultrasound J*. 2015. 7(1):18.

 Atrial Fibrillation with Pre-Excitation: A Can't Miss Deadly EKG Diagnosis 		
Mike Hausberger DO, Adam Sadowski DO, Tim Barr DO, Chris Gooch DO, Joseph Dougherty DO Ohio Valley Medical Center, Wheeling, WV		
<p>Case Presentation:</p> <p>A 28 YOM with no past medical history walked into a local emergency department complaining of palpitations and dizziness. His vital signs were normal except a HR that was variable but consistently in the range of 240-300bpm. A 12 lead EKG was immediately obtained as seen in Figure 1. The patient was sedated with 100mcg of fentanyl and 50mg of Propofol and synchronized cardioversion was performed using 200J of biphasic electricity. His post-cardioversion EKG is seen in Figure 2, which confirmed the suspected diagnosis of Atrial Fibrillation with Pre-Excitation.</p>	 <p style="text-align: center;">Figure 1: EKG obtained immediately on arrival to the Emergency Department</p>	<p>Clinical Course:</p> <p>The patient was started on metoprolol and sent to the ICU for observation overnight. He was evaluated by electrophysiology the following day. He had no recurrence of atrial fibrillation and was discharged home the next day in good condition. He subsequently underwent a successful ablation procedure as an outpatient.</p>
<p>Pathophysiology:</p>  <p>In WPW Syndrome an accessory pathway exists allowing current to bypass the AV node resulting in abnormal conduction. Typically this will result in classic EKG patterns. Often re-entry circuit rhythms, which will either be orthodromic or antidromic, will develop as seen in the diagram above. These rhythms can be treated with AV nodal blockade. However, if atrial fibrillation develops then an irregularly irregular rhythm will develop, as seen in our case. Treatment with AV nodal blockade may cause Ventricular Fibrillation and result in iatrogenically induced death.</p>	 <p style="text-align: center;">Figure 2: EKG obtained immediately post synchronized cardioversion</p>	<p>Figure Legend:</p> <p>Figure 1 shows all the signs of Atrial Fibrillation with Pre-Excitation. Note the irregularly irregular rhythm, with extremely fast rates approaching 300bpm. The wide bizarre and changing QRS morphologies are another key to distinguishing this from simple a-fib with aberrancy.</p> <p>Figure 2 shows the classic triad of WPW syndrome. Note the short PR, prolonged QRS.</p> <p>References:</p> <ol style="list-style-type: none"> Burns E. Pre-excitation Syndrome. <i>Life in the Fast Lane</i>. 2012. http://lifeinthefastlane.com/ecg-library/pre-excitation-syndromes/ Hausberger, & Sadowski. (2016). Can't miss ECG. <i>EM Resident</i>, 24-25 Pikol J. "Cardiac Rhythm Disturbances". <i>Tintinalli's Emergency Medicine A Comprehensive Study Guide</i>. 7th Edition, edited by Tintinalli J. p 129. McGraw Hill, New York, 2011.
		



Emergency Medicine Opportunities

The Department of Emergency Medicine at WVU maintains a thriving clinical practice — including J.W. Ruby Memorial Hospital (645-bed, Level I trauma and tertiary-care referral center), United Hospital Center, St. Joseph's Hospital, two WVU Urgent Care centers, WVU Student Health, WVU International Travel Clinic, and an internal locum tenens practice.

BUILD YOUR LEGACY AS YOU SERVE, TEACH, LEARN, AND MAKE A DIFFERENCE FROM DAY ONE.

ACADEMIC OPENINGS:

- ✓ J.W. Ruby Memorial Hospital
Morgantown, WV
- ✓ United Hospital Center
Bridgeport, WV
- ✓ St. Joseph's Hospital
Buckhannon, WV

ACCEPTING APPLICATIONS:

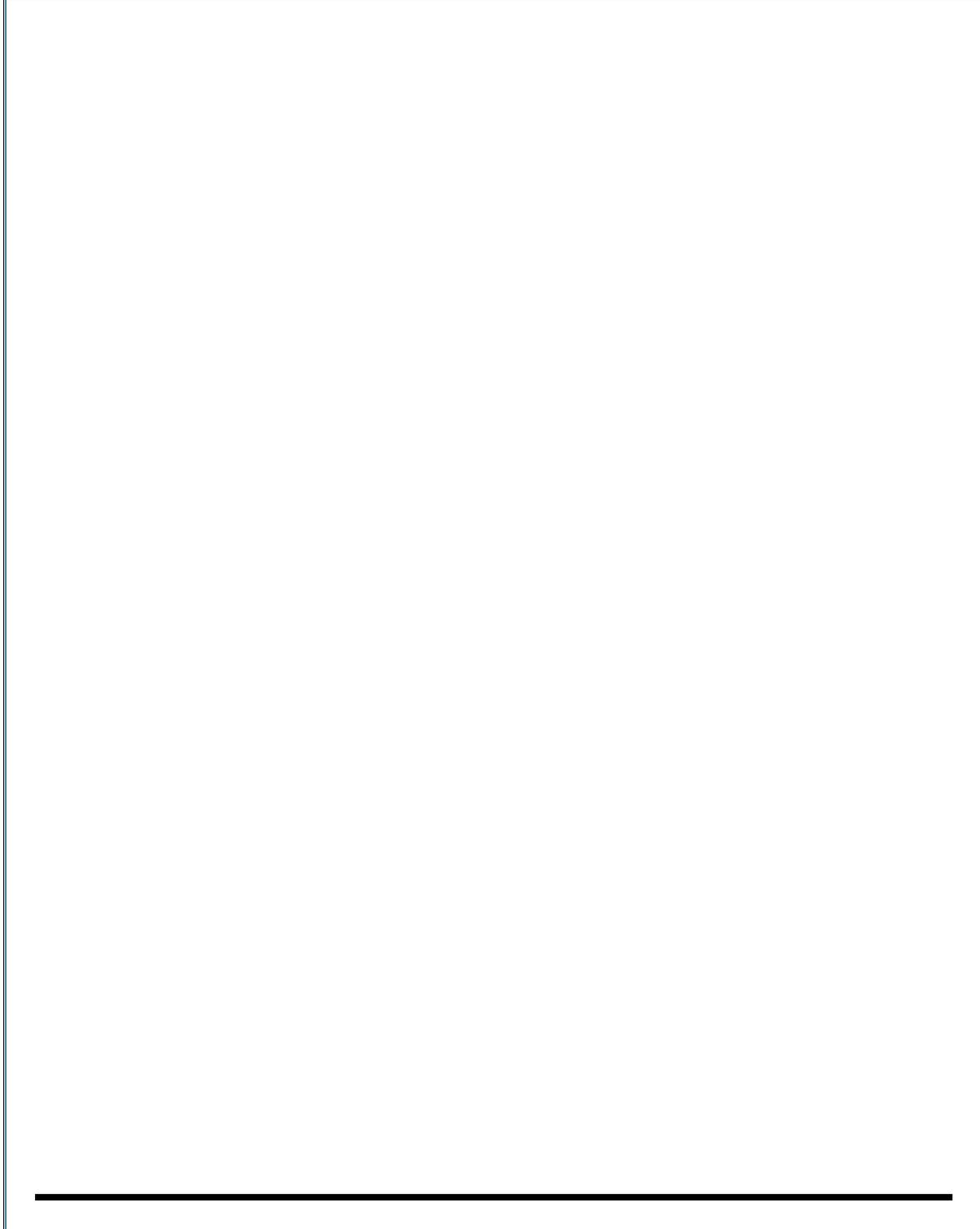
wvumedicine.org/careers
or email resume/CV to
angel.greathouse@wvumedicine.org
Visit our website at
medicine.hsc.wvu.edu/em

WVU Hospitals / University Health Associates
We are an EOE. All qualified applicants will receive consideration for
employment and will not be discriminated against on the basis of
disability, veteran status or other protected status.

NON-ACADEMIC OPENINGS:

- ✓ Grant Memorial Hospital
Petersburg, WV
- ✓ Davis Medical Center
Elkins, WV
- ✓ Potomac Valley Hospital
Keyser, WV
- ✓ Reynolds Memorial Hospital
Glen Dale, WV
- ✓ Camden Clark Medical Center
Parkersburg, WV
\$50,000 signing bonus
- ✓ Acute Resources Group
(Internal Locums Program)

Medtronic





**Lighting Up
the Night**

Flying with Night Vision Goggles since 2003.

26 years of service, over 65,000 patients transported. HealthNet - at the forefront of safety and technology.

 **HealthNet**
Aeromedical Services



ACEP – You make 50 look good!

As we wind down 2017, we kick off a year-long celebration of ACEP's 50th anniversary starting January 2018. Plan to participate in social media campaigns that highlight the highs, lows and life-changing moments in EM. Get hyped for a historical timeline following the history of our specialty as well as anniversary-themed podcasts. Watch for anniversary editions of ACEP Now and Medicine's Frontline in addition to proclamations from members of Congress and sister medical societies. Don't forget to order copy of our commemorative coffee table book featuring the breath-taking photographs that capture a day in the life of emergency physicians collected by famed photographer Eugene Richards. [Book tickets now to ACEP18](#) and our blow-out anniversary celebration in San Diego featuring an interactive history museum showcasing the journey of emergency medicine from battlefield to inner city to rural America to

every spot in between.

As we enter 2018, we begin the celebration of 50 years of life saving and boundary pushing. Are you on call for 50 more?

State Legislative Issues for 2018 **by Harry J. Monroe, Jr.** **ACEP Director, Chapter and State Relations**

Two years after the nearly miraculous successful retreat by the British army from Dunkirk, Prime Minister Winston Churchill remarked on the first actual British victory of the war by declaring, "Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning."

We may be at a similar point in our legislative battles over balance billing and out of network reimbursement. In many states, policymakers that have been considering the issue for multiple sessions will look to address the issue once and for all. Thus, it will be important that we stand ready to engage an issue that continues to pose a threat to our specialty and most importantly, access to care for our patients. Certainly, we want to be paid fairly, but we also want to focus on making sure that insurer practices are not causing patients to delay receiving emergency care out of uncertainty as to what the insurer will pay.

ACEP has developed, and is continuing to refine, resources to help states engaging this issue. On [our website](#) you will find numerous documents that will be of help in working on this issue, including talking points, copies of written testimony produced in a number of states, information on why Medicare is not a sound benchmark for determining reimbursement, and many other materials. I would encourage you to take a look.

Additionally, we have worked hard over the last two years to build relationships with other specialty societies and the AMA, based on shared consensus principles and solutions documents that are included on the website, that have helped us collaborate on these issues. In most states that we have engaged, the national collaboration has helped with building alliances at the state level, with the result that the house of medicine has been largely united in our response to legislation. In addition to fighting off bad legislation, we have looked for opportunities to promote positive legislation on the issue, and model legislation has been developed to that end. In addition, to our collaboration with other specialties, another outside

organization, Physicians for Fair Coverage, has been formed and has helped to provide and coordinate resources in this fight.

At the time of this writing, we are also working on developing regional teams of experts that can help provide assistance in terms of legislative interpretation, understanding financial impacts, and advocacy. These should be in place by the time 2018 sessions begin.

We believe that as many as 25 states will see significant efforts by legislatures to address balance billing and out of network legislation this year. If you are facing it in your state, reach out to me [via email](#) or at 972-550-0911, ext. 3204.

In addition to balance billing and out of network issues, there will be many other important issues to address in the coming year. The prudent layperson standard remains under attack in many places by both Medicaid and commercial payers. The opioid epidemic continues to be a critical public policy concern. Of course, what the federal government does about health care, and how that filters down to the state level, promises to require our attention. This will be a busy year at the state house!

Show Your Commitment to High Standards for Clinical Ultrasound

You have the highest standards when it comes to your clinical ultrasound program. Show that commitment to your patients, your hospital, and your payers with ACEP's Clinical Ultrasound Accreditation Program (CUAP). ACEP's [CUAP](#) is the only accreditation program specifically for the bedside, clinician-performed and interpreted ultrasound. Now also available - accreditation for non-ED clinical settings, including freestanding EDs, urgent care centers and clinics. [Apply Today!](#)

Ensure safety and efficacy of patient care

Meet ACEP's high standards for point-of-care delivery

Use your own policies or draw from expert-reviewed sample documents

Geriatric Emergency Department Accreditation Program

ACEP is gearing up to accredit geriatric emergency departments. The [Geriatric Emergency Department Accreditation Program](#) will be accepting applications after the first of the year. There will be 3 levels of accreditation ranging from a minimal commitment to better elder care to a comprehensive well-rounded robust program. Accreditation shows your patients, your institution and your payers that your ED is ready to provide care to seniors and is a quality program that meets the high standards of the American College of Emergency Physicians. [Find out more.](#)

Articles of Interest in *Annals of Emergency Medicine*

Sandy Schneider, MD, FACEP

ACEP Associate Executive Director, Practice, Policy and Academic Affairs

ACEP would like to provide you with very brief synopses of the latest articles in *Annals of Emergency Medicine*. Some of these have not appeared in print. These synopses are not meant to be thorough analyses of the articles, simply brief introductions. Before incorporating into your practice, you should read the entire articles and interpret them for your specific patient population. [Read More](#)

Policy Statements and PREPs Approved by the ACEP Board

The following policy statements and PREPs were approved by the ACEP Board of Directors at their October 2017 meeting.

Policy Statements

[Medical Transport Advertising, Marketing, and Brokering](#) – revised

[Clinical Emergency Data Registry Quality Measures](#) – new

[Mechanical Ventilation](#) – new

[Hospital Disaster Physician Privileging](#) – revised

[Unsolicited Medical Personnel Volunteering at Disaster Scenes](#) – revised

[Sub-dissociative Dose Ketamine for Analgesia](#) – new

Writing Admission and Transition Orders – revised

[The Clinical Practice of Emergency Medical Services Medicine](#) – new

[The Role of the Physician Medical Director in EMS Leadership](#) – new

[State Medical Board Peer Review](#) – new

Pediatric Medication Safety in the Emergency Department – new

[Distracted and Impaired Driving](#) – revised

PREPs

Sub-dissociative Dose Ketamine - new

Writing Admission and Transition Orders – new

Welcome New Members

Adam Goodcoff

William Brent Brash, II, DO

Elvis Njere, DO

Seth Capehart

Logan Wolford

Mina Botross

Anthony P Strobolakos, Jr

West Virginia Chapter ACEP

2000 Eoff Street, Wheeling, WV 26003

Copyright © 2017 West Virginia ACEP. All rights reserved.