

The Fast Track

Spring 2017 Issue

An Emergency Medicine Publication

MedicaidED
THE EFFECTS
OF MEDICAID
EXPANSION
ON THE
EMERGENCY
DEPARTMENT

HOW THE
IMMIGRATION
BAN HITS A
LITTLE TOO
CLOSE TO HOME

Wanderlust?
CONSIDER A
FELLOWSHIP IN
INTERNATIONAL
EMERGENCY
MEDICINE!



The Fast Track

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Letter from the Editor

Dear *The Fast Track* Readers,

Growing up I was told, "there are two things you don't ever talk about: religion and politics." Although this philosophy helps maintain cordial relationships, it doesn't help to produce informed active citizens. I never questioned why things were the way they were; because, they were topics that we just "didn't talk about." For this spring issue of *The Fast Track*, as you read through our articles about political advocacy and controversial current healthcare policies, I would like each reader to start asking their own questions. Approach the healthcare problems we face like any difficult patient presentation. What's the mechanism behind it? What's causing the problem? What are the factors at play? And most importantly, how can we, as individuals and as a community, seek to be a part of the solution?

In a time rampant in political warfare and a nation divided, we, as students, as residents, and as practicing physicians, need to band together. We all share a common goal: providing the best care possible for our patients, regardless of religious or political views. As those educated in the field, it is imperative that each one of us, at any stage of this process, start to involve ourselves in the political conversation regarding healthcare. Don't be afraid to ask questions. Be careful, you may just learn something new.

We need to be an advocate for our patients; but also, we need to be an advocate for our field. At one point, I was naive to think being involved in politics was "outside my sphere." Healthcare policy affects our present and our future in very real ways—from the paycheck we receive to the number of patients that show up at our ED.

How can we start this process? Primarily, I encourage each of you to get involved in a respectful and professional manner. Attend a conference, join an interest group, and get plugged in on social media. These are the best ways to stay up to date on current healthcare topics and become an active member of the medical community. Secondly, realize your worth as an individual voice in this dialogue. We all have faced situations that we felt were unjust or damaging to our patients in some way. Research the problem; find out more. Never stop asking questions.

Inaction is an action of omission.

Respectfully,

Christina Powell, OMS-II
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INTERESTED IN CONTRIBUTING?
Let us know: FastTrack@ACOEP.org

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PRESIDENTIAL MESSAGE

Resident Chapter

Hello from your Resident Chapter Officers! Spring is always an exciting time for us as we near the end of yet another academic year. Interns are excited to only have a few more blocks before putting arguably the hardest year of residency behind them, third-years are starting to see the end in sight and our fourth-year residents are just a few short weeks away from graduation. It is crazy how fast time flies!

We want to start by congratulating all of our fourth-year Student Chapter members who recently matched! Whether you took place in the osteopathic or MD match, we know how great it feels to finally be one step closer to reaching your goal of becoming an emergency medicine physician. Remember to take some time to relax and spend time with family and friends before beginning the next chapter of your career. We are excited to welcome you into the ACOEP Resident Chapter family and we hope we can serve as a great resource for you throughout your training.

Congratulations are also in order for all of the new chief residents out there! You have worked hard to get where you are today and we know that you will be great leaders for your fellow residents! I urge you to challenge your residents to get more involved at the national level, whether it be through presenting research, serving in a leadership role, or just attending conference. If there is anything we can do to help you please let us know.

Thank you,

Kaitlin Bowers, DO

ACOEP Resident Chapter President

ACOEP Board of Directors



PRESIDENTIAL MESSAGE

Student Chapter

Advocacy starts with the individual. As we seek to encourage advocacy with this spring issue of *The Fast Track*, I would like to encourage each of you personally to advocate for our osteopathic community and advocate for the patients we serve. In the current climate of political uncertainty and general confusion about the future of healthcare we—as future physicians, current residents, and practicing clinicians—must return to the roots of our profession and refocus our efforts to do what is best for the patient. We are their advocates. The beauty of emergency medicine is that in the midst of a true crisis, color, creed, socioeconomic status, and any other potentially dividing characteristic is lost; life is all that matters.

As a specialty college, and through this publication, it is our job to promote awareness. Not to promote an agenda, nor to encourage choosing a side, but to underline the need for physicians and students to educate themselves. We must be aware of the topics facing the patients we serve, the systems in which we work, and the future we face. Burying our proverbial heads in the sands of science will not help us to provide the best care to the most people. I would encourage you to read through the article on political action, *#taketen: It's Time to Add Politics to the Physician Repertoire*, to learn more about taking steps to engage the political process. According to G.I. Joe, knowing is half the battle.

This is an exciting time of change and unification for ACOEP. This time next year, the Student and Resident Chapters will be fully unified as the Resident Student Organization, and will host their first fully combined Spring Symposium. Our goal, from a student perspective, remains focused on being as relevant as possible for students aspiring to become osteopathic emergency medicine residents. With greater student resident interaction in the unified RSO, we are convinced that communication will be more efficient, relationships stronger, and ultimately, this will provide a more complete guide for students into the world of emergency medicine.

By now I hope you've had the opportunity to join us at one of our events; at the next one please stop me and introduce yourself; I would love to meet you. This summer we are hoping to provide a local symposium in the Midwest and an excellent conference in Denver, CO in the fall. More details will be forthcoming; so be sure to follow us on social media to keep up to speed on the upcoming events.

Thank you for being part of our readership,

Dominic Williams, OMS-III
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WHITE COAT TO WHITE HOUSE

How Major Kamal S. Kalsi, DO, Made His Mark On US Military History

Gabi Crowley, ACOEP Staff

During a time where tension runs high and support for minorities and immigrants is crucial, ACOEP member, Major Kamal S. Kalsi, DO, has made his mark in the military not only as an osteopathic emergency physician, but as an advocate for minorities.

Dr. Kalsi trained in Israel in Disaster Preparedness and Response, and has served in the Army for over 15 years. He was awarded a Bronze Star for his service treating hundreds of combat casualties in Afghanistan in support of Operation Enduring Freedom in 2011. He served as EMS Director at Fort Bragg for three years, and currently serves as EMS Medical Director to St. Clare's Health System in New Jersey. Major Kalsi's operational experience includes mass casualty planning and response, triage, tactical medicine, and expeditionary care in austere environments. He has recently transitioned back into the Army Reserves and is the medical officer for the 404th Civil Affairs Battalion.

In 2009, Kalsi was the first Sikh in over 20 years to be granted rights to serve in the United States Army wearing a religious Sikh uniform, including a turban and a beard, and since then has fought for other minorities to have the same rights. Before 2017, soldiers wishing to serve wearing religious accommodations including turbans, hijabs, and beards, had to receive special permission from commanders at a secretary-level, making the process a difficult one.

"You have to be in it for the long haul if you're interested in changing policy, especially in an institution that is as conservative and resistant to change like our military," Kalsi said.

Earlier this year, after much effort in proving that one's religious accommodations do not in fact interfere with a soldier's duties, the military loosened its restrictions and these accommodations can now be granted by brigade-level commanders, making it a much less daunting process. This newly-changed policy also does not require soldiers to keep applying for temporary religious accommodations once they have been granted them, as they were required to do in previous years.

Several years of hard work brought about this victory, including the joint efforts of several parties including The Sikh Coalition, a pro-bono law team from McDermott Will & Emery, the Becket Fund for Religious Liberty, and The Truman National Security Project.



Bringing these diverse groups to the table was far from simple, however it was a crucial first step.

"The biggest challenge, in my opinion, was changing culture at the highest levels of the Pentagon, and showing them that diversity is truly a strategic imperative; that is, the fact that a diverse military that looks like the people it protects will be a stronger and more resilient force," Kalsi said.

Major Kalsi believes the setbacks minorities face in the military limit countless individuals from pursuing significant opportunities.

"When a young Asian American recruit joins the military, chances are that [they] won't see another minority in their entire chain of command. That soldier may begin to

internalize that they will not be allowed to take a leadership position in the military and that ultimately hurts all of us," he said.

Policies including restrictions of religious accommodations in the military, could ultimately end up hurting our nation instead of helping.

"We need the best and the brightest from all communities to come help defend our nation. When we start limiting the applicant pool or inadvertently push good soldiers away from leadership, we begin to erode at the foundations of our pluralistic democracy and the organization charged with defending it," he said.

Among his many roles, Kalsi is a member of the Truman



"THE BIGGEST CHALLENGE, IN MY OPINION, WAS CHANGING CULTURE AT THE HIGHEST LEVELS OF THE PENTAGON, AND SHOWING THEM THAT DIVERSITY IS TRULY A STRATEGIC IMPERATIVE; THAT IS, THE FACT THAT A DIVERSE MILITARY THAT LOOKS LIKE THE PEOPLE IT PROTECTS WILL BE A STRONGER AND MORE RESILIENT FORCE."



"THAT'S WHAT WE DO FOR OUR PATIENTS... WE FIGHT TO GET THEM [AND] THE CARE THAT THEY NEED. ADVOCACY IS NOT MUCH DIFFERENT, EXCEPT THAT WE ARE FIGHTING FOR THE RIGHTS OF LARGE GROUPS OF PEOPLE."

National Security Project, an organization made up of members including "post-9/11 veterans, frontline civilians, policy experts, and political professionals that share a common vision of US leadership abroad." ¹

Major Kalsi is a Truman National Security Fellow, a group of individuals the Project recognizes as "policy experts, academics, and other thought leaders who anticipate and articulate new global challenges and opportunities." ¹

He also serves on the Project's Defense Council, providing his expertise with US foreign policy and both national and global issues.

"The other Trumans I serve with are all exceptionally talented people, and I'm truly honored to be a part of the organization. We all share a patriotic value set that wants to see our democracy flourish," he said.

Although unable to discuss a specific strategy or next steps The Truman Project plans to take regarding President Donald Trump's executive order regarding immigration, Kalsi says that each member of the Project is dedicated and willing to stand up for the same beliefs, including truth, loyalty, duty, respect, service, honor, integrity, and personal courage.

"There are those of us that will be focused on issues of diversity in the years to come. This means fighting

Islamophobia and irrational fears against immigrants [and] refugees. It means looking at data, statistics, and boots-on-the-ground experience to back up our arguments so that they're rooted in truth," he said.

Although he is one of the few doctors in The Truman Project, Kalsi feels as if it's a part of his civic duty to be involved. He also believes being an osteopathic emergency physician allows him to see things more holistically and compares his work as a DO to advocacy.

"As a physician, I'm used to paperwork and red tape. But I know that with persistence, I can overcome any bureaucratic obstacle. That's what we do for our patients... we fight to get them [and] the care that they need. Advocacy is not much different, except that we are fighting for the rights of large groups of people. Sometimes that fight begins with one person, and I'm glad that I've helped make a difference," he said.

Despite meeting congressmen, senators, celebrities, Pentagon officials, and even shaking Barack Obama's hand, Kalsi says

that his most memorable moment in his career is still the day he returned home from deployment and was reunited with his family. Kalsi says his family's support is really what helped him get to where he is today, though that support comes at a cost.

"My son was two years old when I deployed, and on a video call one day, he said 'Dada, I miss you... do you still remember me?' It's heartbreaking hearing that, but the sacrifices all of our soldiers make are not in vain," he said.

Having experienced challenges along with triumphs throughout his journey thus far, Major Kalsi plans to continue to honor and defend our country whenever he is called to serve again.

"I am proud to be an officer in the Army and will gladly deploy again whenever I'm called to duty. This country and everything we represent is worth fighting for."





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IMMIGRATION AND MEDICINE

Shane Xiong, OMS-III
Edward Via College of Osteopathic Medicine
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"Are you Chinese? Korean? Japanese?"

This is generally the first question people outside my ethnicity ask me when initiating a conversation, usually out of curiosity and with no ill will intended. As always, my response is, "I'm Hmong." The conversation continues, "Hmong? What is that? You mean Mongolian?" I proceed to give my one-minute synopsis of the history of the Hmong people. "Historically, the Hmong originated from China. Facing subjugation from the Chinese, they moved toward the southern parts of China. The Hmong then dispersed to neighboring countries, such as Laos, Vietnam, and Thailand. We don't have a country of our own."

I am the son of immigrants, specifically Hmong refugees who entered America to escape persecution from the communist regime in Laos. In the Vietnam War, the Hmong were recruited by the American C.I.A. to fight against communist troops in Laos. They were persecuted after the United States withdrew its troops. To date, the Hmong have been in the United States for approximately 40 years. I am part of the first generation of Hmong born in the United States and proud of it.

In recent news, President Trump has issued an immigration ban against seven Muslim countries because of fear and uncertainty. Enforcing a ban on immigration toward a certain population is not the answer. We must not forget that America's foundation is based on the collaborative efforts of immigrants.

With America being a melting pot of ethnicities, this can lead to cultural and language barriers in many aspects,

including healthcare. However, this is where the strengths of immigrants and their children come into play. In medicine, communication and understanding are key. Having members of diverse cultures be parts of healthcare teams allows patients to feel comfortable and be more likely to adhere, since language and cultural barriers can be removed. This is where I hope to step in as a communication advocate. Being culturally aware and bilingual in Hmong and English will allow me to better serve the general community and the Hmong community.

"INSTEAD OF BEING AFRAID OF IMMIGRANTS, WE AS A NATION SHOULD FOCUS ON THE STRENGTHS OF WHAT IMMIGRATION CAN BRING TO US."

Because of the tribulations my parents faced, I have been fortunate enough to be born in America, the land of opportunity. I am able to chase my dreams of becoming an emergency physician. Had my parents not been accepted in this country, I would not be where I am today, attending medical school. It is my hope that those facing strife in their homelands can have the same opportunities that I have been granted. Instead of being afraid of immigrants, we as a nation should focus on the strengths of what immigration can bring to us.

HOW THE IMMIGRATION BAN HITS A LITTLE TOO CLOSE TO HOME

Hala Ashraf, OMS-III
VCOM-VC

On January 27th, less than one week after his inauguration, President Donald Trump signed an executive order, effectively blocking entry into the states from seven countries (Iran, Iraq, Libya, Somalia, Sudan, Syria, and Yemen) for a 90-day period. The ban sparked protests worldwide throughout the weekend. Stories went viral as immigrant physicians were halted entry, including the Cleveland Clinic intern, Dr. Suha Abushamma, and Interfaith Medical Center's very own, Dr. Kamal Fadlalla.^{1,2} Both physicians are only two of many who were either turned back at the gates at their airport, or denied entry onto their flight back into the United States.

Since the signing of the executive order, several prominent medical organizations have come forward expressing concern over both the executive order and future ramifications of limiting immigration. Organizations such as the AOA, NRMP, ACP and AMA, have all released public statements emphasizing the importance of diversity in the healthcare setting, as well as the vital role immigrant physicians play in the increasing physician shortage in the United States.³ In 2016, the Association of American Medical Colleges (AAMC) once again projected that there will be a shortage of physicians in the US in the coming decade. The projections indicate that the shortage could range anywhere between 61,000 to 94,000 physicians by 2025.⁴

According to the AAMC, in 2015, 24.3% of all active physicians in the United States were International Medical Graduates (IMGs).⁵ Furthermore, of this 24.3%, 41% were practicing primary care.⁶ Not only do IMGs make up a significant portion of the physician workforce in the U.S., they also tend to take on positions that might have otherwise gone unfilled. One study published in *Family Medicine* found that of rural primary

care physicians nationwide, 19.3% are IMGs, compared to the

10.4% of osteopathic PCPs that are practicing in rural areas.⁷

So what makes IMGs more likely to practice in underserved areas? To be able to complete a residency in the United States, a noncitizen IMG must obtain a J-1 visa, which allows training through a US residency program. After completing residency, J-1 recipients must leave the US for at least two years unless they obtain a J-1 visa waiver. This waiver allows IMGs to remain in the US under the obligation of practicing in a health professional shortage area (HPSA).⁸

Not only are IMGs more likely to practice in medically underserved areas, but a recent study published in *BMJ* found that patients treated by hospitalist IMGs had lower mortality rates than those treated by their US medical school graduate counterparts. The study looked at Medicare recipients older than 65 who were admitted between 2011 and 2014. The study provided some insight as to why this may be the case for internationally trained physicians. Many immigrant physicians currently practicing have likely gone through residency twice: once in their country of origin and once again in the US.⁹



MOVING FORWARD

Just one week after the executive order was signed, federal Judge James Robart halted the ban nationwide. Almost immediately, the State Department began to reinstate visas that were cancelled after President Trump's executive order.⁹ Of note, both Dr. Abushamma and Dr. Fadlalla have returned to practice in their respective programs.^{1,11} However, although there is a temporary restraining order on the ban now, it does not mean that the ban will be struck down for good. On February 7th, a three-judge panel from the 9th US Circuit Court of Appeals held a telephone hearing to determine whether the restraining order would remain in place.¹² The

court eventually decided against reinstating the travel ban.

Just as there is uncertainty in the coming days regarding the fate of the ban on immigration, there is also uncertainty surrounding the upcoming match. The ACGME match occurred on March 17, 2017 and in a statement released from the NRMP regarding the executive order, the program expressed concern at the uncertainty both programs and applicants will face in the coming months as they try to match. Even if ban ends after the 90-day period, as it is intended to, interview processes to obtain visas may be so slow that immigrant applicants may not be able to start on July 1st. If this is the case, programs run the risk of having valuable spots unfilled.¹³

President Trump's executive order banning all travel from seven predominantly Muslim countries has far reaching impacts across the country. It can be difficult to imagine the magnitude of how the general population will be affected by this ban, but already we are seeing the consequences. Of the 24.3% of IMG physicians practicing in the country, 4,180 are citizens of Iran and 3,412 are citizens of Syria.¹⁴ Combining this data, 7,592 physicians

immigrate from just two of the seven countries included in the travel ban. They make up 3.6% of the 209,367 active IMG physicians in the US.

Now imagine them gone.

How many patients will be impacted if this ban, or a similar ban, arises in the next four years? How many positions for rural PCPs will go unfilled? In a time where our nation is already severely lacking in physicians, with projections for the shortage to worsen, can we really afford to cut down our workforce even more?

MedicaidED

The Effects of Medicaid Expansion on the Emergency Department

Christina Powell, OMS-II
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Importance of Medicaid

Medicaid is a jointly funded, federal-state health insurance program¹ for low-income and disadvantaged individuals, offering coverage to over 70 million people.² Included in the coverage are over 32 million children, 20 million non-elderly adults, 7 million elderly adults, and more than 10 million Americans with disabilities.² The program also covers an additional income bracket of those eligible to receive federally assisted income maintenance payments.

Eligibility rules for entrance into the Medicaid program are dictated by individual states, with the majority of states covering families living below the Federal Poverty Level (FPL). For states that elected to expand the Medicaid program under the Affordable Care Act (ACA), all individuals and families with income less than 138% of the FPL are covered. The current poverty guidelines are calculated utilizing 2015 Census Bureau's poverty thresholds and adjusting them using the Consumer Price Index. The poverty guideline for a family of three is \$20,420, in effect as of January, 2017.³

Medicaid coverage was expanded under the ACA, increasing the number of insured individuals to 17 million; the nation's uninsured rate dropped to the lowest level in history, below 9%.² Federal Medicaid spending grew 9.7% to \$545.1 billion in 2015, totaling 17% of the total National Health Expenditure.⁴

Prediction models of future health forecast an accelerated increase in federal spending of 5.7% for 2017 through 2019 on these programs.⁴

Importance as Emergency Physicians

Expansion of insurance coverage should be an important topic for every physician as advocates for each patient's well-being. With heightened insurance costs and reduced primary care provider reimbursements, patients often suffer from limited access to quality care. Medicaid expansion was targeted specifically at reducing unnecessary and expensive emergency department visits, especially considering 15% of visits were from uninsured patients, according to the National Hospital Ambulatory Medical Care.⁵

Under the ACA, Medicaid covers emergency room visits as part of its "Ten Essential Benefits"; thus, all government plans cover ER visits.⁶ ACA also affirms the "Prudent Layperson Standard,"⁷ which ensures that if a person thinks they need emergency care their insurance company cannot deny payment for a reasonable workup. This ideally would decrease uninsured ED visits and reduce uncompensated costs. Physicians with a specialty in emergency medicine reported the greatest number of hours of EMTALA mandated care;⁸ therefore, emergency physicians provide the most uncompensated care of all physicians. However, the data



"MEDICAID EXPANSION WAS TARGETED SPECIFICALLY AT REDUCING UNNECESSARY AND EXPENSIVE EMERGENCY DEPARTMENT VISITS, ESPECIALLY CONSIDERING 15% OF VISITS WERE FROM UNINSURED PATIENTS."

regarding obtaining the goal ACA set forth has been sparse and mixed. As well-informed osteopathic physicians, it is important to be aware of the research regarding each health care policy's effect.

Verdict on Increased or Decreased ED Use

Per a 2015 ACEP poll, 47% of emergency physicians indicate slight increases in the number of patients since the outset of ACA in 2014, while 28% of respondents report significant increases in the number of emergency patients.⁹ These increases are rebutted by labelling them temporary increases, due to the number of previously uninsured patients now receiving coverage without an established primary care provider. It is theorized that once the dust settles, patients will establish primary care physician relationships, and the ED use will decline.

What does the current research say?

In 2008, Oregon expanded Medicaid through a random-lottery selection of potential enrollees from a waiting list. A key finding was that Medicaid increased emergency department visits by 40% in the first 15 months.¹⁰ Increases in emergency-department visits crossed a broad range of presentations, including conditions that could be most readily treatable in primary care settings.¹⁰

Expounding upon this lottery, a randomized controlled evaluation of the causal effect of Medicaid on coverage sought to answer the question, "Does the increase in ED use caused by Medicaid coverage represent a short-term effect that is likely to dissipate over time?"¹¹ Expanding the data to cover 2010, the study found no evidence that the increase in ED use would dissipate over time, nor that ED use was any different 6 months after enrollment as compared to 18-24 months after enrollment.¹¹ However, applying office visit data over the period, the same study found a 13.2% increased probability that a Medicaid enrollee will have both increased ED visits and office visits.¹¹ Discussion surrounded the increased likelihood of a primary care physician suggesting an ED visit to a patient. The study concluded that within the first two years, expanded Medicaid coverage is unlikely to drive substantial substitution of office visits for ED use.¹¹ This study supports the ACEP's poll that increasing ED usage is on an upward trend, and not leveling out anytime soon; however, over the first two years, expansion will be seen across healthcare settings, not just the ED.

Viewing the problem from a different point of view, a large, multi-centered study compared overall ED volume and payer mix in Medicaid expansion and non-expansion states. The



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study examined the effect of insurance expansion on ED use in 478 hospitals in 36 states during the first year of expansion (2014).¹² Using adjusted difference-in-differences approaches, the authors found that insurance expansion was not associated with significant changes in overall ED visits but more associated with changes in the payer mix, even though more people gained insurance in expansion versus non-expansion states. Total ED visits grew by less than 3% in 2014 compared to 2012-13, with no significant difference between expansion and non-expansion states.¹² Dividing the visits by payer, the study recorded a 27.1% increase in Medicaid ED visits, a relative 31.4% decrease in uninsured ED visits, as well as a 6.7% decrease in privately insured ED visits in expansion states compared to non-expansion states.¹² While Medicaid ED visits increased, overall ED volume did not. Variables such as the use of urgent care centers, increased access to ambulatory care as result of Medicaid reimbursement parity, and other confounding variables may be at play.

Recommendations

Overall, we see an increase in ED usage with Medicaid expansion; however, there are many confounding variables and the current research offers conflicting results. Retrospective analyses in the years to come may provide more insight into the effects since the changes in 2014.

"AS A SPECIALTY, WE CAN ENCOURAGE OUR NON-EMERGENT PATIENTS TO MAKE AN ESTABLISHED RELATIONSHIP WITH A PRIMARY CARE PROVIDER AT THE POINT OF DISCHARGE FROM THE ED."

What can we do now?

As a specialty, we can encourage our non-emergent patients to make an established relationship with a primary care provider at the point of discharge from the ED. Education regarding emergent vs. non-emergent conditions, how to gain access to services via care coordinators, or the extent of their new benefits can be a critical step for our newly insured patients. Cooperation with care coordinators could help patients find local providers who accept their new insurance. Unfortunately, a shortage of primary care providers does exist across many states. Having healthcare insurance does not mean that you have health care access.

Initiatives have been made to develop primary care delivery

systems, such as the Emergency Department Intervention Program in Detroit, which helps transition underserved patients from emergency departments to primary care settings.¹³ The Voices of Detroit Initiative also works with primary care providers who have agreed to provide care to these vulnerable patients at significantly discounted costs. The program claims to have 'transitioned 55 percent of active enrollees out of emergency departments into primary care settings, resulting in a 42-percent cost reduction in preventable emergency department visits and avoidable hospitalizations.'¹³ In locations such as Detroit, where there is a primary care shortage, expanding Medicaid without expanding primary care leads more people to the emergency department.

Politically, we can advocate for future funding for these initiatives to help improve healthcare access for the newly insured. Promoting the use of a patient-centered medical home model, including care management, case supervision, extended hours for working families, and same day walk-in visits at centrally located facilities, may aid the initiative to reduce ED use. These are basic setbacks for most individuals on subsidized insurance plans; a trip to the emergency department currently meets most of these needs. Primary care should evolve into a viable alternative that matches the accessibility of the emergency department. Health reform up to this point has been focused on reducing ED use, without speaking to the factors that make the ED so attractive to the

majority of patients. Patients need to be able to access care without missing work, without cumbersome authorizations, and with a quick turnaround time.

If we cannot stop the public demand for the pertinent features that the emergency department offers, then we

need to capitalize on those benefits and focus on expanding them within the realm of primary care. An option would be for the government to recognize emergency medicine as a primary care specialty. If these are the characteristics that the patients need, health care models should reflect that. Emergency departments may not be ready for the continued increase in patient volume. Seventy percent of ACEP member physicians believe their ED is not sufficiently prepared for potentially substantial increases in patient volume.⁶ If the trend of increased ED usage continues, individual hospitals and staff may have to anticipate the climb as a long-term change rather than as a short-term hurdle. At such time, mechanisms should be in place to adjust for this increase in traffic accordingly.

COMBATTING SYNTHETIC CANNABINOIDS IN YOUR EMERGENCY DEPARTMENT

Frank Wheeler, OMS-III
LECOM – Bradenton, FL

Synthetic Cannabinoids: What is the difference?

A cannabinoid, better known as marijuana, is a drug that has been shown to activate the Cannabinoid type 1 receptor (CBR1) within mammals. Activation of this receptor results in hypothermia, motor suppression, and analgesia.¹ $\Delta(9)$ -tetrahydrocannabinol (THC), the primary psychoactive compound within marijuana, is a partial agonist of this receptor. Synthetic cannabinoids have been shown to be a full agonist of the CBR1, potentially 100 times more potent than marijuana, and have a longer half-life.²

Why is it important?

Synthetic marijuana, also called "K2" or "Spice" has become increasingly popular among teens and young adults within the past few years. Synthetic marijuana has become the second-most popular illicit drug of choice for US high school seniors.³ National survey results revealed that 11% of high school seniors and 14% of college students admitted to synthetic marijuana use in 2012.^{4,5} Synthetic marijuana was also responsible for 11,406 emergency department visits in 2010, and ED visits more than doubled the following year. Seventy-five percent of these visits were patients between the ages of 12-29, with 26 years of age being the median.⁴ Many of these users considered this drug to be safe, more potent than simple marijuana, and undetectable. According to US Poison Control, this "harmless" drug can lead to dangerous side effects such as seizures, hallucinations, severe agitation, nausea, vomiting, and suicidal thoughts.⁶

Therefore, it is imperative for emergency physicians be able to identify, manage, and treat individuals who use synthetic marijuana.

Identification

Current drug tests are unable to pick up synthetic cannabinoids. An emergency physician must rely on the patient's history and objective findings. The physical findings for users of synthetic marijuana are quite numerous but can help differentiate it from other illicit psychoactive drugs. Patients usually present with hypertension, sinus tachycardia, angina, and myocardial infarctions.⁷ Less specific signs include nausea, vomiting, and dehydration. Neurologic findings common in synthetic marijuana use include trouble ambulating, fasciculations, psychomotor retardation, seizures, and impairment while operating vehicles.^{8,9} It is also well established that marijuana stimulates appetite, as demonstrated by its use in the treatment for cachexia secondary to cancer. An important physical sign that may help a physician identify marijuana intoxication is corneal injection. Other ocular changes that occur include blurry vision, light sensitivity, and pupil size changes.¹⁰ Alternative notable symptoms reported with synthetic marijuana use include hyperthermia, rhabdomyolysis, acute tubular necrosis, and hyperventilation.¹¹⁻¹³ Behavioral and psychological effects of synthetic marijuana include severe agitation, psychomotor retardation, aggression, perceptual distortions, psychosis, and suicidal ideations.¹³



"SINCE SYNTHETIC CANNABINOIDS DO NOT PRESENT ON TOXICOLOGY SCREENING, PHYSICIANS MUST RELY ON THE SIGNS AND SYMPTOMS OF ACUTE INTOXICATION IN A SUSPECTED PATIENT."

Management

Since synthetic cannabinoids do not present on toxicology screening, physicians must rely on the signs and symptoms of acute intoxication in a suspected patient. However, routine drug screening should be conducted in order to rule out other possible illicit drugs. With the varying physiological effects of synthetic marijuana, management of this acute toxicity varies. Vital signs, electrolytes, CPK, ECG, cardiac enzymes, liver enzyme tests, and laboratory studies for kidney function should be assessed. In patients with agitation or violent behavior, benzodiazepines may be utilized as first-line treatment. Suicide risk assessment should also be conducted in order to assure the patient's safety. Prompt intervention should be conducted if the patient develops seizures (lorazepam), angina, acute tubular necrosis, or acute psychosis (haloperidol). Following the treatment of acute intoxication of synthetic cannabinoids, the patient should be referred to outpatient drug rehabilitation and counseling if appropriate.

Conclusion

Synthetic cannabinoids are full agonists of the CBR1 receptor and are 100 times more potent than regular marijuana. Eleven percent of high school seniors and 14% of college students admitted to synthetic marijuana use in 2010 and this percentage is expected to increase. Synthetic cannabinoids were responsible for over 11,000 ED visits and this number has more than doubled since then. With this drug becoming more widespread and rampant, it becomes more important for emergency physicians to suspect acute intoxication of synthetic cannabinoids in patients with unexplained acute psychosis. This is especially relevant considering the hazardous side effects and deaths that have been reported.¹⁴ In doing so, we as emergency physicians, residents, and students can not only protect our patients, but also help do our part to combat this future epidemic.

SMOKING CESSATION COUNSELING IN THE EMERGENCY DEPARTMENT

Does it Actually Work?

Taylor Webb, OMS-III

West Virginia School of Osteopathic Medicine



Just over 50 years ago, Surgeon General Dr. Luther Terry released the first ever federal government report linking smoking to poor health outcomes such as lung cancer and heart disease. Over the past five decades, physicians and researchers have made tremendous progress in preventing and treating many of the diseases linked with smoking. New screening methods are catching diseases earlier. Pharmaceutical companies have developed medications that are helping patients live longer. Chemotherapy regimens are becoming more advanced at targeting specific cancers. Adult smoking rates have also dramatically declined since the initial landmark report, dropping from 42% in 1965 to 18% in 2012.¹ However, despite the progress that has been made over the years, smoking remains the leading preventable cause of premature disease and death in the United States.¹

So how does this relate to emergency medicine? In an ideal world, the emergency department (ED) would only be used for, well, emergencies. However, the ED has played an increasingly greater role as a societal "safety net," providing both acute and non-acute care for patients who have limited access to primary care providers, such as those who are uninsured or who come from low-income households.² Given that smokers are disproportionately from low-income households, it isn't surprising to find that emergency departments see a higher prevalence of patients who smoke.³ Therefore, emergency providers are being encouraged to become educated in smoking cessation counseling techniques such as screening, intervention, and referral for treatment.

As an aspiring emergency physician myself, I would like to discuss some of the potential barriers faced with smoking cessation counseling in the ED, share some promising data regarding the efficacy of such counseling, as well as give some thoughts on how every emergency department might be able to approach this topic going forward. This topic might not be as "sexy" as a complex trauma or resuscitation case,

and it might not be at the center of a *Grey's Anatomy* episode anytime soon, but I hope you might find this information both valuable and thought-provoking.

Barriers Encountered

In 2004, the American College of Emergency Physicians (ACEP) formed the Task Force on Smoking Cessation to address the role of emergency medicine in tobacco control, and in 2006 released a statement regarding their research, discussion, and recommendations for emergency physicians. Their statement also summarized the most common barriers to emergency department-based tobacco control, which include:⁴

- Insufficient time with the patient
- Perceived lack of interest on the part of patients
- Belief that the ED is an inappropriate setting for preventive health activities
- Perceived ineffectiveness of counseling
- Lack of training in tobacco cessation techniques
- Difficulties with follow-up
- Lack of reimbursement for brief screening and referral

Even as a medical student I have been guilty of using one or more of these barriers as a crutch to justify the lack of time given to counsel a patient who I knew was using tobacco on a regular basis. If I really wanted to go the extra mile, I might have given the patient some generic “How to Quit Smoking” handout I found in a forgotten drawer from the secretary’s desk, likely already questioning in my mind whether the patient would even read it. Having acknowledged my less-than-stellar approach, I have found through my own research that there is no shortage of smoking cessation resources for healthcare professionals to use. I have also come to the conclusion that the barriers discussed above can be overcome with relatively minimal time and effort. However, none of these barriers will be overcome without the individual provider first recognizing that tobacco addiction is a condition that, like any life-threatening illness, needs to be given the attention it deserves.

Does it actually work?

Several studies have been published in recent years exploring the efficacy of smoking cessation counseling that takes place in the emergency department. One such study by Dr. Steven Bernstein, former chair of the ACEP Task Force on Smoking Cessation, and his colleagues discussed their findings on how a more robust emergency department smoking cessation model affected abstinence rates. The nearly 800 smoking patients in the study were all 18 years of age or older and were randomly assigned to either a “usual care” group that was used as a control, or an intervention group. Patients assigned to the usual care group were given a brochure prepared by the state Department of Public Health that provided general information about smoking cessation and the telephone number of the state smokers’ quitline.⁵ Patients assigned to the intervention group were given the same brochure as the control group, as well as the following additional interventions: a motivational interview by a trained research assistant, 6 weeks’ worth of nicotine patches and gum initiated in the ED, a faxed referral to the state smokers’ quitline, and a follow-up call by a nurse three days after their initial ED visit.⁵

So did the extra intervention efforts pay off? The results of Dr. Bernstein’s study showed that three months after the initial patient encounter in the ED, the prevalence of biochemically confirmed abstinence (via measuring exhaled breath carbon monoxide levels) was 12.2% in the intervention group versus just 4.9% in the usual care group, a difference of 7.3%.⁵ This study, along with numerous others, demonstrates that a more robust and organized approach to smoking cessation in the ED does in fact work. Imagine for a moment just how many heart attacks, strokes, and cancer diagnoses alone could be prevented if 7.3% more of ED patients who smoke

were able to quit for good – the ripple effect would impact thousands, if not, millions of people in the long run.

Going Forward

The field of emergency medicine is overflowing with algorithms and protocols for just about every life-threatening condition imaginable. These protocols are continually evolving as research helps us better understand what treatments are the most effective and will give patients the best outcomes possible. With as many as 75% of ED patients who smoke expressing interest in at least one type of intervention, it would seem logical for every emergency department to have some sort of organized cessation protocol in place to give patients equal opportunity to obtaining resources that could potentially save their life.⁶ While I am certainly not advocating that smoking cessation counseling become more of a priority in the ED than the unstable patient, I am advocating for these patients to get the time they deserve and to be given the best treatment options available to treat their addiction.

The smoking cessation resources below are some of the most commonly used by healthcare professionals, and provide access to invaluable tools such as research publications, presentations, fact sheets, reports, videos, online cessation counseling training, billing and coding resources, state tobacco cessation coverage, updated warnings regarding electronic cigarettes, and contacts for local support groups and quitlines. Please take a few moments to browse the following resources (as well as find some resources of your own that you like) and practice various approaches to see how you might be able to give your patients the best possible chance of quitting smoking. My hope going forward is that emergency providers continually and honestly assess their own smoking cessation counseling approach throughout their careers in order to ensure that patients are given the best care possible, no matter what their acuity level may be.

American Lung Association

www.lung.org/stop-smoking

The Centers for Disease Control and Prevention (CDC)

www.cdc.gov/tobacco

Smokefree.gov

The Smoking Cessation Leadership Center

smokingcessationleadership.ucsf.edu

Ucanquit2.org

U.S. Department of Health & Human Services

www.surgeongeneral.gov/priorities/tobacco

U.S. Surgeon General Report on Electronic Cigarettes

e-cigarettes.surgeongeneral.gov



Erich Burton, OMS-III, W-EMT

Virginia College of Osteopathic Medicine – Blacksburg, VA

Soft tissue injuries are among the most common injuries in the wilderness. Distinct from injuries to bones, ligaments, and tendons, soft tissue injuries include everything from lacerations and abrasions, to bruises, blisters and avulsions. Additionally, soft tissue injuries are an often neglected but substantially significant cause of morbidity in developing countries.¹ Further, in terms of resources, it should be noted that the distinction between a wilderness environment and a developing country is often nonexistent. The wilderness offers unique challenges for wound care, such as the absence of sterility, limited resources and delay to definitive medical treatment. By understanding a few variations on the basic principles of wound care, soft tissue injuries in the wilderness can be successfully managed.

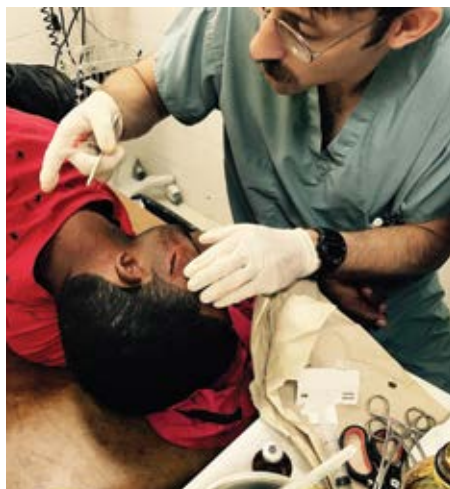
Hemostasis

Similar to the urban environment, the goal of hemorrhage management is to control bleeding with well-aimed direct pressure. Pressure must be applied directly over the wound and preferably with a sterile dressing.² The majority of bleeding from soft tissue injuries is from veins and capillaries – these vessels are under low pressure and should coagulate within five minutes.³ Arterial injuries are identified by the spurting of blood with each pulse; the color of the blood is not a reliable indicator of the source.³ Arterial bleeds are also controlled with well-aimed direct pressure; however, a greater amount of time is often required. Arterial bleeds that are uncontrolled for greater than 15 minutes should be packed with sterile gauze and wrapped tightly with a bandage.³ Distal circulation and sensation should be continuously monitored to ensure adequate blood supply. Indications that a bandage is too tight include bluish discoloration, absent pulse, numbness, tingling or pain distal to the injury. Once bleeding has been controlled the bandage can be removed. In cases where bleeding is exceptionally difficult to control, immobilization of the affected area is recommended in order to prevent the destabilization of clots and further subsequent bleeding. With the exception

of amputations, open-fractures, complex vascular injuries and gunshot wounds, tourniquets are dangerous and often unnecessary.³ Evacuation is indicated for injuries in which bleeding cannot be controlled.

Infection Control

Wound infections occur from contamination with foreign material and entry of normal flora into the wound.³ While preventing an initial infection is always preferred over treating a wound infection, non-sterile environments make this goal especially difficult. Individuals caring for soft tissue injuries should begin treatment by cleaning their own hands with soap, preferably followed by a chlorhexidine, povidone iodine, or alcohol-based disinfectant. Sterile gloves should be utilized if available. Next, the tissue around the wound should be cleaned, preferably with 10 percent povidone iodine solution.³ After the area around the wound is cleaned, attention should be given to the wound itself. Wounds should be cleaned with disinfected water and povidone-iodine in a 20:1 dilution.³ Concentrated disinfectants are contraindicated for wound cleaning because they damage viable tissue and disrupt healing.⁴ A 30 ml or 50 ml syringe with an 18 gauge needle or larger can be used to



"THE WILDERNESS OFFERS UNIQUE CHALLENGES FOR WOUND CARE, SUCH AS THE ABSENCE OF STERILITY, LIMITED RESOURCES AND DELAY TO DEFINITIVE MEDICAL TREATMENT."

irrigate the wound. If syringes and needles are unavailable, cutting a hole in the bottom of a Ziploc bag can serve the same purpose. Clotted blood, foreign material, and dead tissue should be removed with sterile instruments as their presence greatly increases the risk for infection.

Puncture wounds should be allowed to bleed.³ This encourages the removal of debris and bacteria by carrying them to the surface. The major complication of a puncture wound is infection with anaerobic bacteria.³ Immunization status, especially for tetanus, is important for individuals spending time in the wilderness or developing world. While prophylactic antibiotics are not indicated for uncomplicated puncture wounds, complicated punctures requiring prolonged evacuation (greater than 24 hours) likely benefit from administration.³

Healing Promotion

The inherent lack of sterility in the wilderness means that soft tissue injuries rarely need to be sutured. If a wound is left open, it retains the ability to drain purulent material. The risk of infection in the wilderness is high and suturing essentially guarantees the retention of purulent material. The risk of deformity and infection associated with suturing in the wilderness is far greater than leaving the wound open.³ Additionally, most simple non-infected soft tissue injuries will heal by secondary intention and thereby minimize complications.³ Open wounds should be covered with sterile dressings. While many dressings and wound packing materials have been employed past and present, the role of honey, iodine and silver-based dressings have an undefined role in wilderness management. For smaller wounds, butterfly bandages can be used to approximate wound edges and are easily removed to allow for drainage.

Signs of infection should be investigated daily. Fever, pain, redness, swelling, heat, purulence, foul odor, and decreased range of motion are all signs of infection.³ Wound dressings should be changed every day unless the injury is a burn (every seven days).³ Infected wounds should be drained and treated with antibiotics. The wound should be opened with sterile forceps and probed for pockets of pus. After the wound has been drained, a sterile non-adherent dressing should be placed in the wound to keep it open.² Infected wounds should remain open until the signs of infection have resolved.

The proper bandaging of wounds includes:

- Inner non-adherent dressing: allows dressings to be painlessly removed.
- Middle absorbent dressing: absorbs drainage, prevents contamination, prevents adjacent maceration, and prevents further tissue trauma.
- Outer layer of tape or elastic bandage: adds structural stability to the bandages, prevents wound contamination, controls swelling, and bleeding.

Conclusion

The management of soft tissue injuries in the wilderness hinges on the supplies of the party and the ability of patients to eventually receive definitive medical treatment. While virtually every wilderness area in the United States is no more than a few days from definitive treatment, this fact does not diminish the importance of highly skilled and decisive medical care. By following the aforementioned principles, complications of soft-tissue injuries can be minimized in the inherently sub-optimal conditions of a wilderness environment.

TAMOXIFEN-INDUCED ACUTE PANCREATITIS

CASE REPORT

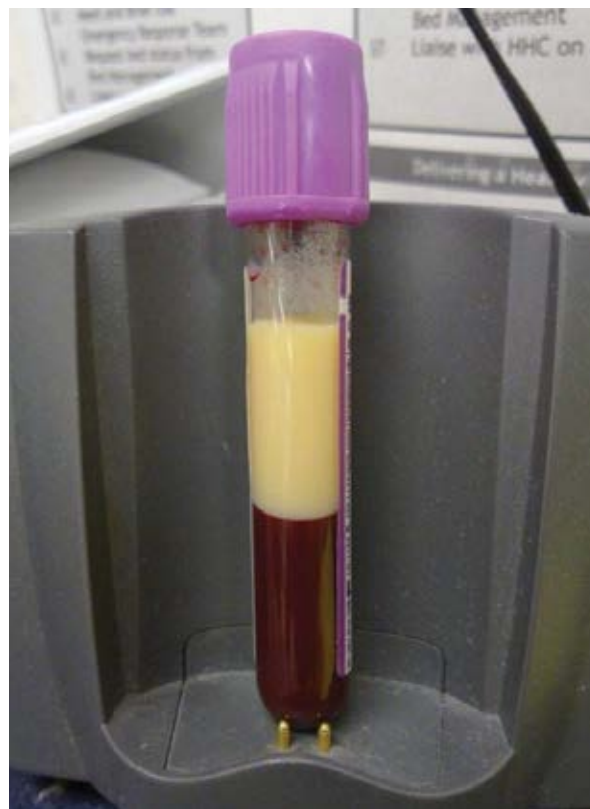
Andrew Leubitz, OMS III, OU-HCOM

Priya M. Roy, MD

Nick Mizenko, DO

A 49-year-old female patient presents to the emergency room with a one-week, progressive history of epigastric pain and new onset chest pain that radiates bilaterally. She describes the pain as 8/10 in severity that occurs when she eats. She has associated nausea and non-bloody emesis. She has an extensive past medical history including hypertension, hyperlipidemia, gastroesophageal reflux disease, type 2 diabetes mellitus, hypertriglyceridemia, body mass index of 30.3, s/p lobectomy for right-sided ductal carcinoma in situ and total abdominal hysterectomy. Her home medications include amlodipine, fenofibrate, losartan-hydrochlorothiazide, Pravastatin, Tamoxifen, Omeprazole, gabapentin, long and short acting insulin, and supplements including a recently started omega-3 fatty acid supplement, Vascepa, to control hypertriglyceridemia. She has no history of cholelithiasis or excessive alcohol use.

Labs were sent off but took over five hours to get results due to the high viscosity of the blood. Her initial review of systems was normal, with the exception of chest and abdominal pain. On physical exam, she was hypertensive 158/84, tachycardic, and had a distended abdomen. Ultrasound (US) showed no evidence of a stone or dilated duct. Toxicology was negative, and liver function tests were normal. Glucose was 182, Amylase was 117, and Lipase was 241. Cardiac workup was normal, with the exception of sinus tachycardia. Computed tomography (CT) showed findings concerning for acute pancreatitis with enlargement of the pancreas and stranding within the surrounding pancreatic fat. Triglyceride level was 7425. The patient was admitted to the hospital and quickly started to decompensate. She required intubation and IV antibiotics for sepsis throughout her 17-day hospitalization. One week after discharge, she was readmitted through the emergency department for epigastric pain. Based on history, a CT was ordered and a pseudocyst was discovered. Surgery is planned for later in the month.



OBJECTIVES FOR THE CASE

What is the incidence of acute pancreatitis in the United States and its clinical course? What are the more common causes of pancreatitis? Uncommon causes?

What was the underlying feature in this patient that caused her hypertriglyceridemia?

How is pancreatitis managed in the emergency department and on the floor?

DISCUSSION

Acute pancreatitis (AP) is one of the most common gastrointestinal diseases in the United States with an incidence of approximately 40 cases per 100,000 adults and a direct medical cost of \$2.2 billion, an average of \$9,870 per patient.¹ AP has a mortality rate between 10–15%. Because of the total systemic effects of the pancreas, both endocrine and exocrine, damage to the pancreas can cause rapid decline, so prompt recognition and management is vitally important.²

PATHOPHYSIOLOGY

Normal pancreatic physiology involves proenzyme granules—zymogens—that are stored in the acinar cells of the pancreas. In normal function, digestive signaling begins a cascade of reactions in which pancreatic enzymes are released in a controlled manner. In pancreatitis, an insulting event causes premature and excessive activation of the enzymes, which can cause damage to the pancreas itself and surrounding organs. The associated damage activates neutrophils, which release a combination of superoxides and proteolytic enzymes, causing macrophage cytokine release inflammatory response.³ There are three main pathways of pancreatitis: ductal obstruction, direct acinar cell hyperstimulation or injury, most commonly by alcohol, and defective intracellular transport and metabolic injury. All three pathways lead to acinar cell injury, which activate the inflammatory cascade that contributes to AP.⁴ Hypertriglyceridemia is a well-documented cause of pancreatitis, and accounts for roughly 7% of AP cases. The most common causes include gallstone obstruction and chronic alcohol use.⁵ Although the exact mechanism of hyper-triglyceride injury is unknown, the leading theories are that the hydrolysis of triglycerides leads to excessive formation of free fatty acids causing inflammatory changes and vascular injury. Additionally, the excessive viscosity in the blood caused by the hyperlipidemic state causes direct vascular injury to the pancreas.⁶

DIAGNOSIS AND TREATMENT

Pancreatitis patients will present to the emergency department with severe epigastric pain, normally radiating straight to the back. Associated tachycardia and tachypnea

are also common. Patients can also become rapidly dehydrated due to third spacing induced by the pancreatitis.³ In our case, the US, CT, lipase, and extremely high triglyceride levels led to the diagnosis of hyper-triglyceride induced acute pancreatitis.

The initial treatment of pancreatitis, independent of causality, is stopping the offending agent, aggressive fluid resuscitation, nil per os (NPO), and pain management. Additionally, due to the rapid decline in our patient, she was intubated and apheresis was started to rapidly remove excess triglycerides. An insulin drip was started to control her blood sugar. Fenofibrates, already on board from the patient's home medications, are the mainstay of therapy to control triglyceride levels which modulate PPAR enzyme in the liver, decreasing secretion of VLDL and increased lipolysis of plasma triglycerides.⁷ Omega 3 fatty acids and statins in combination with fenofibrates have been shown to provide additional benefit.⁸

But why were the patient's triglyceride levels so high? It was suspected that her Type 2 Diabetes, hypertension, and hyperlipidemia were caused by lifestyle and genetic factors. Familial hypertriglyceridemia can be exacerbated by the use of Tamoxifen, a medication used for prevention of breast cancer recurrence. Although a rare complication, a subset of patients can develop a paradoxical hypertriglyceridemia after Tamoxifen use. A 1998 study theorized that the combined estrogenic and antiestrogenic effects of Tamoxifen can lead to an increase in lipoprotein lipase mass but a decrease in hepatic triglyceride lipase activity.⁹ This may cause an increase in TG and VLDL levels, which can contribute to a hyper-triglyceride state.

FOLLOW-UP

One week after discharge, the patient developed new epigastric pain. With a high clinical suspicion based on her history, a CT was ordered and a large pseudocyst had developed. Due to the recent ICU stay, the surgery team decided to manage the patient symptomatically and scheduled drainage of the pseudocyst in the near future.

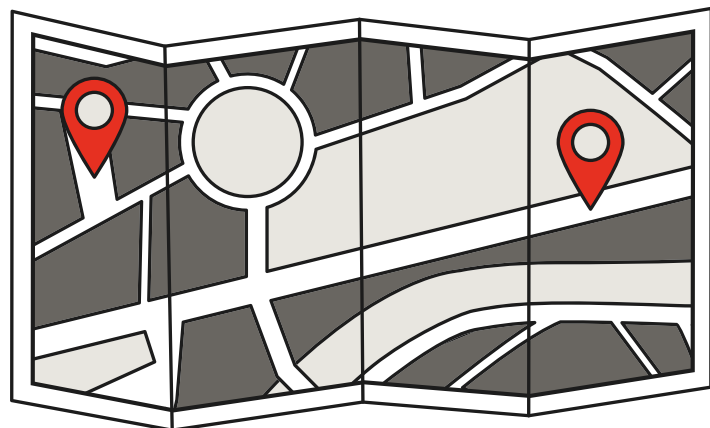
CONCLUSION

Although the most common etiologies of pancreatitis are gallstone biliary obstruction and excessive alcohol use, there are other less common causes such as hypertriglyceridemia.³ Emergency physicians should have a high suspicion for both common and uncommon etiologies of pancreatitis as well as an appreciation for the morbidity and mortality associated with the condition.

WANDERLUST?

Consider a Fellowship in International Emergency Medicine!

Michael J. Brennan, MPH, OMS-II
LECOM - Bradenton, Fla.



Training in emergency medicine (EM) affords physicians a diverse and highly translatable skill set that is equally valuable both inside and outside the hospital, in a wide variety of settings. For those up to a challenge, many emergency physicians (EPs) pursue some portion of their training, if not their entire careers, abroad. International Emergency Medicine (IEM) has been an established subspecialty and area of research under the umbrella of emergency medical training for over 25 years. Its focus is on worldwide development of acute care infrastructure as well as the implementation and delivery of care. For many physicians in the field, this comes down to devising strategies that deliver care in resource-poor settings. For others, a career in IEM may involve laying down the framework for foreign political and academic institutions to integrate the specialty of emergency medicine into national health care delivery models, medical schools and graduate medical education systems. Lastly, IEM plays a critical and decisive role in disaster management and catastrophe risk mitigation.

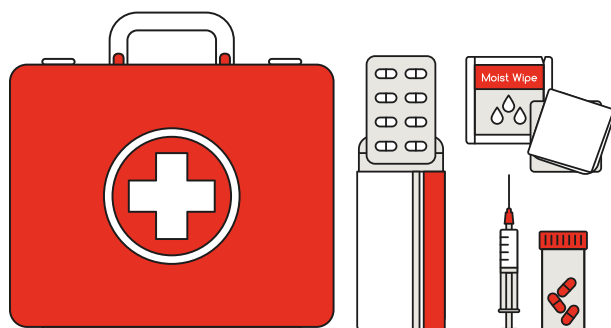
Below are some frequently asked questions and answers to help you better understand IEM.

So, what can I gain as a physician from training internationally?

After completing an EM residency at a US-based institution, many EPs are looking to challenge themselves by learning how to provide lifesaving care in not so state-of-the-art environments. IEM physicians are specifically trained to practice in low-resource settings such as low-income regions or disaster hit areas. This often requires EPs to brush up on procedures they may not routinely perform, or those that are usually completed by other specialists and ancillary staff. These include handling lumbar punctures, starting intraosseous access or directing the management of myocardial infarction solely with fibrinolytics in areas where percutaneous coronary intervention is not available.¹ IEM provides EPs with advanced training in other subspecialties of EM such as emergency ultrasound, as access to advanced imaging may be limited. Of course, it should go unstated that an EP practicing internationally should never perform a procedure that one is not qualified to perform. However, IEM does provide a unique opportunity to cultivate new skills when there is appropriate supervision within reach.

How developed is EM as a specialty throughout the rest of the world?

EM as a specialty is relatively new in the United States and worldwide, therefore a central effort of IEM practitioners is the promotion of the specialty in nations with little or no recognition. Take India for example. As the second most populous country in the world in 2013, there were less than 300 EPs, compared to the 2007 estimate of over 42,000 EPs practicing in the US.^{2,3} With over a 25-fold deficit in projected EPs needed by 2020, the country has an enormous demand for the development of EM graduate training programs.



Over the last 15 years, American universities have been attempting to meet this need by partnering with teaching hospitals in India as well as in other countries. EPs from institutions such as The George Washington University, North Shore-LIJ, and SUNY Upstate, have worked directly with private Indian hospitals to help design the curricula for some of the country's first post-graduate training programs in EM. Visiting faculty from US-based medical schools have been instrumental in the development of these programs, and applications to these collaborative programs have surged in recent years.² In fact, a recent article commenting on the state of EM in India cited the development of a national graduate EM curriculum, along with continued growth of international collaboration, as key strategies to bolster the foothold of the specialty within the country.⁴ With government interest in keeping up with this unmet need, opportunities for US-based EPs trained in IEM to get involved with systems development are virtually endless and in high demand.



What about disaster management?

With the recent global health emergencies, such as the outbreak of the Ebola virus in West Africa and natural disasters such as the 2015 earthquake in Nepal, the global public health community has been sent reeling. IEM physicians are not only involved in disaster response, but also in prevention and recovery. IEM as a subspecialty has been leading the charge to establish evidence based systems, EMS development and pioneer exchange of information between high and low resource settings.⁵ EPs who have the broad training that is afforded by EM can serve in many capacities, from boots-on-the-ground practitioners to policy leaders that liaison with other specialties within the realm of global public health. Training in IEM can lead to careers under organizations involved with disaster management such as Médecins Sans Frontières, departments of the UN, and other NGOs.

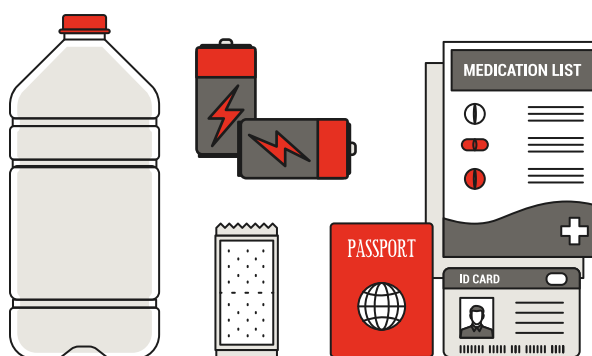
How do I learn more about IEM fellowships and other available opportunities?

There are currently well over 100 EM fellowship programs in at least 10 different concentrations, with around 30 programs specifically aimed at training fellows in IEM.⁶ To be eligible to apply to an IEM fellowship, you generally need to be board eligible in emergency medicine by July 1st of the application year. Most programs are two years in duration, include a research component, and often require the completion of an advanced degree, such as a Master of Public Health or a Degree in Tropical Medicine and Hygiene. Most fellowship opportunities focus on one of the core tenants of IEM: development, acute care delivery, or disaster management.

Applications to IEM fellowships are centralized and can be found at the International Emergency Medicine Fellowships Consortium's website (www.iemfellowships.com), which includes a list and descriptions of each program. Applicants generally enter the fellowship immediately following completion of their residency, with interviews and offers extending into the fall of the application year. Some important issues to consider before you apply include: potential lost income, lack of flexibility of structured curricula, the narrow focus of the programs, and licensing restrictions.

Can I get involved in IEM during medical school?

If you are resourceful, you can certainly carve out opportunities that provide early exposure to IEM before you graduate. ACEP's IEM section has a database of available rotations and observerships in IEM. The most popular time to complete an IEM rotation is during the latter half of fourth year, after match season.⁷ Electives may be clinical or non-clinical, might involve assisting with research studies and may have a language requirement. Check with your school to see what types of elective experiences qualify as credit toward your degree. Pursuing IEM rotations, getting involved with research projects, or simply taking coursework in public health are great ways to get involved in IEM early on in your medical training.



A photograph of three medical professionals in a hospital hallway. In the foreground, a young woman with dark hair, wearing light blue scrubs and a yellow stethoscope, smiles warmly at the camera. Behind her, slightly out of focus, are a man and a woman, both also in medical attire and smiling. The background shows a bright, modern hospital corridor with white walls and a blue door.

How Can You Prepare For A Successful EM Match?

Jacob Schwab, OMS-II
WVSOM

Timothy Bikman, OMS-IV
WVSOM

I recently interviewed National Student Past President, Tim Bikman. Emergency medicine has become a highly competitive specialty, but there are things you can do each year to set yourself up for success on Match Day. Tim's answers to the following questions provide great insight and will benefit anyone interested in emergency medicine.

What are some basics things that anyone interested in EM should do?

Get involved with your local EM club and try to find ways to get experiences in and around emergency medicine. Things like shadowing an emergency physician or attending a lecture by an emergency physician or resident can be extremely valuable. Become a member of the national organization, which for us as osteopathic students would be the American College of Osteopathic Emergency Physicians (ACOEP), and also register as an EMRA member. Both organizations provide really unique, basic things that are helpful for students interested in emergency medicine.

For those who may not be familiar with it, can you explain what EMRA is?

EMRA is the Emergency Medicine Residents' Association and it's basically the MD's version of our National Student ACOEP Chapter. It's something for residents and students alike.

"I REALIZED THESE WERE THE KIND OF PEOPLE I WANT TO BE LIKE LATER ON IN LIFE."

FIRST YEAR

What made you want to go into EM?

As a first year student I had an upperclassman who encouraged me to look into EM. At that point, I really felt like I wanted to do pediatrics. Finally, he convinced me to attend an ACOEP student event. At that event I just found myself surrounded by people whom I really meshed well with, and it was the type of culture that I wanted to be involved in. I realized these were the kind of people I want to be like later on in life. I was really inspired by that experience, going to a conference and being around those types of people.

As a first-year medical student, how do we know whether or not EM would be a good fit?

The only way you can know is to start having experiences. Attend your local EM club events, especially if they have a doctor coming to talk, and just ask yourself, "Is that the type of environment that I want to work in?" "Are those the types of experiences that I want to have?" "Do I feel like I would excel in that type of environment?" Look around the room and ask, "Do I see myself fitting in with these types of people?" I would also highly encourage students to attend an ACOEP or EMRA-sponsored "Regional Symposium." These are one-day events on a Saturday, so you don't have to miss class, where they have lecturers, labs and some sort of residency-networking experience. Going to one of these as a first-year

student would be really valuable in helping you understand, "Is this really a specialty that I should pursue?"

Did you attend any other conferences outside of emergency medicine?

I did, actually. For two years, I went to OMED, which is basically the osteopathic world's major conference that brings together a number of different specialties, where I presented research. Also as a first year student, I attended the American College of Osteopathic Pediatrics spring conference. These conferences were fine, but lacked student-focused lectures and events. At that point, I assumed that's just how it goes as a student. Then I attended an ACOEP conference as a second-year student and found myself engaged in lectures, labs, and social events specifically for students like myself. I felt like, "This is a college that cares about me as a student and where I'm going," and that was one of the things that really inspired me to do emergency medicine.

How important are clubs?

I think being involved in a club shows dedication to a specialty and it's a valuable opportunity to help you find out if you are really interested in that specialty. Emergency medicine has become very competitive, so the earlier on you know it's the specialty you want to go into, the better prepared you can be for matching into a good residency.

What if you don't have any ED shadowing experience? What are the first steps that you would recommend to get ideas about whether this is the path that I should go down?

I think this question really goes along with some of the other things that we've talked about, such as getting involved in your local club, attending their events, trying to find out if there are any regional symposiums or conferences that you can attend and just getting experiences within that environment and among those people that practice in that environment. I think that's the best thing that you can do. If you have the opportunity to spend some time in the emergency department, that's great, but I know that's not a possibility for all students and I don't think it's completely necessary. I think there are other ways that you can get those experiences and rub shoulders with people who are in those environments and will help you better know if emergency medicine is right for you. So just being involved in your local club and trying to find an emergency conference to go to would be very beneficial. If you don't make it to an ACOEP conference, SMACC puts on a conference, SAEM puts on a conference, and EMRA has their conferences with ACEP. There are lots of conferences out there. Find one that's doable for you and attend it.

SECOND YEAR

How important is club leadership during our first two years?

I think having leadership experience is very valuable. There is so much personal growth in taking on the challenge of a leadership position. Those types of positions also, inevitably, lead to networking and other opportunities that you wouldn't have been exposed to otherwise. Also, as a second-year student, it's not wrong to look at national leadership opportunities as well. The ACOEP students have elections every fall for their national leadership and we always encourage second-year students to run for positions.

"THERE IS SO MUCH PERSONAL GROWTH IN TAKING ON THE CHALLENGE OF A LEADERSHIP POSITION."

What advice do you have about taking USMLE along with your COMLEX, and what kind of implications does it have in emergency medicine specifically?

This is a question I've thought a lot about. Within the next 2-3 years, I imagine the single accreditation will create an environment where there is virtually one match and all students, DO or MD, are competing directly for all positions. I know a lot of students have concerns like, "What if I don't do well on the USMLE?" I get that. It's scary. It's another exam you've got to prepare for, but you really prepare for it the same way. Let's say you don't do well—I don't think that closes any more doors than would already be closed if you don't take the exam. Just taking the USMLE will give all programs the opportunity to consider you as an applicant, regardless of your score. Also, it's been my experience that students who plan to take both exams are more diligent, disciplined and serious about the exams.

When is a good time to do an ED rotation as a third-year student?

At most schools, you have limited control of how your schedule is set up as a third-year student, and I get that, but there's no better way to find out if emergency medicine is right for you than to do a rotation as a medical student. Whether it's a required rotation or an elective, I would try my best to get into the emergency department early in your third year, especially before January when you really have to hit the ground running while preparing for fourth year.

What are important dates to keep in mind as a third-year student, as you're preparing for fourth year?

Third year, academically, is much easier than your first and second year, so you're not spending so much time worrying about the next exam. Third year is really a time to prepare for fourth year. July through December is a great time to do a lot of general investigation of many different programs. Try to find out what you want from your future training. Are you looking for a community-based training, a large academic center, a major trauma center, or is geographic location important? By December you need to have a small list of your top 5-8 programs. These will be the programs where you would like to do a visiting/audition rotation. In January and February, find out exactly how to go about applying for an audition rotation at these programs. You'll need to find out if they have their own application or if they go through VSAS (Visiting Student Application Service). Every program has different deadlines and requirements. You want to be on the ball because even audition rotations are competitive and you need to have all of your paperwork ready and submitted the day their application opens up. Then, as third year is wrapping up, you've got to be serious about being ready to fill out your ERAS (Electronic Residency Application Service). That means you have an up-to-date CV put together, you're working on your personal statement and you're thinking about your letters of recommendation. Most medical schools allow you to start filling out your ERAS in March. You can also go to ERAS, at any time, and download a PDF template to know what information you will need to input into ERAS. Lastly, you will want to sign up early for board exams. Take your exams early, like in July, so that programs have your scores back when they are considering whom to invite for interviews.

How important is Step II?

Step II, in general, is not as important as Step I when programs are considering which applicants to interview. I think programs make a lot of their decisions and set their minimum board scores for accepting interviewees and auditioning students based on Step I; however, I feel as though Step II is definitely an important opportunity. It's your chance to show the program a consistent pattern of success, or if you didn't do so well on Step I, it's an opportunity to show improvement.

FOURTH YEAR

What months are best for audition rotations?

I think the prime months to do audition rotations are August, September and October. In July, programs are trying to get their new interns oriented. Interview season is primarily the end of October through early January. It's best to avoid being

on auditions in the middle of interview season.

What are SLOEs and why do I need one?

SLOE is a Standard Letter of Evaluation. It's a letter of recommendation that standardizes you, as a rotating student in emergency medicine, compared to other students each specific program has seen. It's extremely valuable. This is arguably the most powerful tool a program director has that shows how you function in an emergency room, through the eyes of the faculty members that work in residency programs.

If you'd like to learn more about SLOEs, you can find more information at this website: www.cordem.org/i4a/pages/index.cfm?pageID=3743

You can also see an example of the SLOE template at this website: www.cordem.org/files/DOCUMENTLIBRARY/SLOR/SLOE%20Standard%20Letter%20of%20Evaluation%202015.pdf

How and when do I get them?

When you're doing an audition at an emergency medicine program make sure to let them know at the very beginning of your rotation that you would like to receive a SLOE at the end of the rotation. This is also a great time to ask them about their process in writing SLOEs and about their criteria to achieve "honors" vs. "high pass" vs. "pass," etc.

Who gives them?

It depends on the program. Each program has their own process. Some programs have a committee that gets together to develop their SLOEs and others might have the program director or a specific faculty member assigned to create their SLOEs.

Do you see your SLOEs?

This is like any other letter of recommendation and so you probably won't see what it says. It is also important to know that the process of uploading

a SLOE is the same process used to upload any letter of recommendation. In addition, remember that you can only submit four letters of recommendation to any residency program. I would recommend that two of those four letters of recommendation submitted to each of your programs be SLOEs.

Do you have any advice for preparing and submitting your ERAS application?

There are two big things I would like to mention. First, be early on everything when it comes to residency, especially your ERAS application. Find out when you can start filling out your ERAS and then find out what dates DO and MD programs accept applications (these are all different dates that change each year). Be ready to submit your application the first day that ERAS allows. Secondly, you don't have to have a complete application to submit it to programs. For example, most of you won't have your board scores back and your SLOEs will not have been uploaded by the time you can submit your application. For example, if you don't get your COMLEX PE set up early enough and you don't have that score back yet, you should still submit your application. This shows them that you are organized and serious about their program.

How do you maintain balance and wellness through this crazy process?

If we don't have health, in all of its aspects, we have very little. Be conscious of what you eat/drink, and exercise regularly. Finally, for most of us the clinical years of medical education is the first time we have been exposed to real tragedy on a regular basis. You will see and be part of some patients' most devastating moments. These moments take their toll. Find ways to maintain balance in your life. These will be different for everyone. Family, socializing, religion or exercise are just a few of the things that can contribute to a long and healthy career.

Here are some pearls of advice from some program directors:

- 1. Personal Statement:**
Make it believable. Tell what motivates you, drives you, and makes you want to excel in EM. Let them know about you and what they would be getting out of you as a resident, for example, leadership qualities, experiences, research, personality, etc. Tell what you are looking for in a program. Tell what you need from a program to help you be successful.
- 2. Doing an audition at an institution that is not familiar with or doesn't complete SLOEs is not as advantageous as those that do.**
- 3. Taking both USMLE and COMLEX should be viewed as mandatory.**
- 4. Most students do 3-5 auditions which takes a significant amount of early planning and a lot of time.**
- 5. As a fourth-year student it is important to follow up with programs you liked in order to express your interest in that program before rank lists are submitted.**

Prehospital Quality Improvement and Education in Care for PARCA Patients

Jesse Yuan, OMS-III

Des Moines University College of Osteopathic Medicine

Part of the beauty of a career in emergency medicine is the ability to treat a variety of patients while working with individuals in different healthcare professions. A major component of this field is managing and working with EMS providers. Roughly 14.5% of ED arrivals are by EMS.¹ This is important because the care of these patients begins even before they arrive in the ED. To provide the best possible care, there must be a review of the continuity of care of each patient, from their first encounter to discharge. This assessment helps identify two key variables that may advance patient care: continual educational training and patient quality improvement (QI) measures.

Unfortunately, there are no current national standards for QI in the field of EMS, partly because each system has their own detailed variations and each state has a different set of protocols.² Furthermore, our current tools to measure QI are not useful or effective, because they are unable to illustrate the disconnect between operational-based QI and the actual health needs of the patient. Without standardized care, how can prehospital providers be expected to perform at their best? Even with the advancement in technology and research over the past few decades, the survival to discharge rate of out-of-hospital cardiac arrest patients has not significantly sustained an increase.³ Perhaps standardized QI measures are the answers needed to improve patient outcomes.

As a paramedic and current medical student, I was inspired to investigate this issue by conducting research alongside the City of Pittsburgh EMS and University of Pittsburgh Medical Center (UPMC) Department of Emergency Medicine. Our team began by focusing on one specific group of patients: the most critically ill individuals, who reap the greatest value from ALS care. The categorization for these patients became known as PARCA – Prehospital post-Arrival Respiratory/Cardiac Arrest. The objective was to develop and assess if PARCA-directed QI and education would lead to improved performance of critical

interventions by paramedics.

The first step was a retrospective analysis of data on suboptimal care in crashing patients from 2010 to 2012 that fell under PARCA parameters. Guidelines and algorithms were then developed that were tailored to the patterns of error identified during that time. Those errors included areas of care that were omitted, not provided in a timely fashion, or not performed correctly. Unannounced field-based, real-time, high-fidelity simulations were designed and conducted beginning in 2011. Simulations were chosen as the primary method of education, because over the last several years, studies from UPMC have shown that simulations are the best tool to teach and improve healthcare providers' performance. These simulations were individually tailored without disciplinary ramifications. Afterwards, lectures and small unit training were done using those guidelines and algorithms. Data on PARCA patients were then collected on a rolling basis post-training.

Our results showed an overall trend of significant increase in critical interventions and patient monitoring tools performed when comparing pre and post-training data. In those cases, the average time for the interventions notably

decreased. The percentage of EMS witnessed arrests went from above the national average to below after the initiation of PARCA-directed QI and education programs. We concluded that this standardized tool could be an effective means to improve performance of paramedics on critically ill patients. Ultimately, it could be used as a novel tool to compare and track EMS systems and providers over periods of time.

The study was limited by a single EMS system and a small sample size which limited the ability to detect differences on a national level. In the future, our plan is to be able to expand



"OUR COMMITMENT TO EDUCATION AND TRAINING GOES HAND IN HAND WITH THE COMMITMENT WE MAKE TO OUR PATIENTS."

to other types of patients along with other EMS systems, both in rural and urban settings. Furthermore, detailed analysis in tailoring education goals to patterns of error in PARCA patients warrants further investigation in a wide variety of systems. This will help with validation and better standardization of this newly developed program.

Overall, this kind of resource is potentially the first step at fixing the current dearth in outcome measures for EMS education and QI. More importantly, it aims to continuously improve performance and patient care, which is what every provider should strive to do. Our commitment to education and training goes hand in hand with the commitment we make to our patients. The AHA released findings that have indicated that earlier interventions in cases of sudden cardiac arrest increases the chances of survival and better quality of care.⁴ Perhaps with more implementation of standardized QI and education, patient's survival to discharge rate will finally begin to significantly increase.





TakeTen

It's Time To Add Politics To The Physician Repertoire

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What do lawyers and farmers have in common? I tried to come up with a punchline, but instead I'll stick to the facts. Both are more likely to vote than a physician.¹

Multiple journalists over the last decade have noted this trend. It is undeniable that healthcare opinions drive many voters to the polls; however, physicians—supposedly in charge of medicine (a discussion for another time perhaps)—stay home, or at least in the hospital.¹ In October of 2016, the New England Journal of Medicine published a study detailing current attitudes towards healthcare.² Seventy-nine percent of the patients polled considered themselves happy with their care, a fact health care professionals should be proud of.² The cost of healthcare is a primary concern for many voters, and the fear of rising prices of insurance premiums has left the majority of the population dissatisfied with their out of pocket expenditure.²

Apathy is not a partisan issue in the world of medicine. In fact, it turns out that politically registered emergency medicine physicians are almost split down the middle in terms of party affiliations.³ Other specialties demonstrate a more significant trend; our registered surgical colleagues are predominantly republican, whereas our registered psychiatry and infectious disease physicians are overwhelmingly democrat.³

In this article, my aim is not by any means to persuade, but simply to share methods and ideas on how to further educate ourselves. Through increased factual knowledge and individual initiative, we, as a body dedicated to healthcare and improved patient outcomes, can form our own opinions in

this critical political season. My interest resides in changing the current trend of political despondency among the physician population. Physicians have a rich history of being on the frontline of politics; over 10% of those that signed the Declaration of Independence were members of our field.⁴ Recently, it is encouraging to see positive signs in Congress of physicians finally returning to the field they were once such a fundamental part of; yet, there is still much work to be done.⁴

I, however, am no professional in this field. Although attending the last couple years of “DO Day on Capitol Hill” has given me an introduction to the political arena, the rest of my political activism is essentially observing the sadly heated and often fruitless discussions erupting around me on social media. I know I need to also make a change, so I thought it might be best to recruit a little help. The following is an excerpt of a conversation Dr. John Casey and I shared about politics and medicine.

Dominic: So, Dr. Casey, thanks for being willing to talk politics with me! It's not always the most uniting topic of conversation, so I suppose we should start with something benign. Tell us a little about yourself.

Dr. Casey: Sure, thanks for having me! I am currently the Associate Program Director at OhioHealth Doctors Hospital Emergency Medicine Residency in Columbus, Ohio. I actually stayed at Doctors Hospital after attending residency there. I went to medical school at VCOM – Virginia... before there was a Virginia on it! I am actively involved with ACOEP, ACEP, AOA, and have special interest in EMS, health policy, and medical education.

D: What got you interested in politics?

Dr. C: My first interest in politics at the local and state level began when I was an Executive Director for EMS. The job involved reporting to a Board of Directors and we were a subsidiary of County Government. It gave me the first opportunity to see the effect politics (and policy) could have on the day-to-day provision of healthcare. Really, my first introduction to federal policy and politics came through opportunities provided by the AOA. DO Day on the Hill was my first real chance to really learn how policy moves forward, and how important relationships with legislative offices can be.

D: How would you say politics has impacted your career so far?

Dr. C: That's a very broad question, but the real answer is—it impacts it daily. Emergency physicians in general are a touchpoint for so many of the problems in healthcare...we have become the center of discussion on much broader questions such as quality, access, and cost. Everything from EMTALA, the ACA, student loan payback, etc. all provide the undercurrent of the work I do every day. Sometimes providers don't notice it in the minute to minute action of the ED—but it is always there if you just take a moment to watch for it.

"EVEN THOUGH IT DIDN'T AFFECT MILLIONS OF CITIZENS, THE FEW THOUSAND THAT IT WOULD HAVE IMPACTED WERE INCREDIBLY GRATEFUL, AND I FELT THAT MY CONTRIBUTION WAS MORE THAN A MERE 'DROP IN THE BUCKET'".

D: I appreciate that perspective; undoubtedly medicine and politics are intricately entwined. Can you give me a specific example of your work causing an impact on policy?

Dr. C: So "victories" in terms of policy come both big and small. I worked really hard to help promote the ACA, mostly because of the knowledge I gained in a program called TIPS (Training in Policy Studies). I engaged in high-level discussions, and even was given recognition by President Obama as Champion of Change. Nonetheless, I feel like I had a more meaningful impact when I worked at the local level: to secure funding for Emergency Medical Services that was going to be lost. Even though it didn't affect millions of citizens, the few thousand that it would have impacted were incredibly grateful, and I felt that my contribution was more than a mere "drop in the bucket." It's a great example of what people mean when they say "all politics that matter are local."

FIVE EASY STEPS TO GETTING INVOLVED

1

Choose your issue

What topic drives you? It's much easier to talk passionately about something you care about.

2

Do your research

Is this a local, state, or federal issue?
How time sensitive? There is nothing more frustrating than pouring out your heart to the entirely wrong individual, or a topic voted on last week...

3

Find the players

Which committee members are involved in making this decision? Where do they meet and when?

4

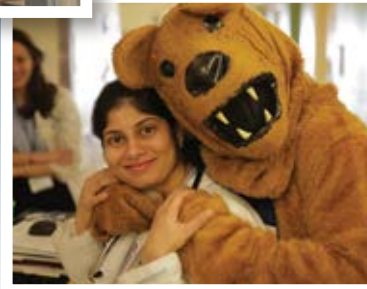
Speak your piece

Pick your platform; letters, phone calls, emails, and even Facebook. I'm going to tactfully avoid the pros and cons of Twitter at this juncture.

5

Rinse and repeat

At this point the old adage of 'squeaky wheels and oil' rings true. Persistence is key. One message can get lost in the deluge of information coming in to a political office each day. A repeated conversation provides a basis for a relationship to promote effective communication for years to come.



Assistant/Associate Residency Program Director

Emergency Medicine Core Faculty

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Applicants must have graduated from an accredited Emergency Medicine Residency Program and be board eligible or board certified by ABEM or AOBEM. We seek candidates with strong interpersonal skills and the ability to work collaboratively within diverse academic and clinical environments. Observation experience is a plus.

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D: Wow, that's pretty exciting, congratulations! With so much information out there, from a plethora of sources, how do you go about keeping up with the information?

Dr. C: It can be overwhelming to stay on top of everything if that's not your full-time job...and some of my policy friends on The Hill say it's overwhelming even though it is their full time job! With that being said, I get most of my information from news headlines (print and audio), blogs, and trusted "digest" emails.

D: Are there any formats you feel are superior?

Dr. C: I actually turn to trusted digest emails first. State and national societies, that have your best interests as a provider at heart, are a great way to sort through the noise. They have the manpower to look for and identify actionable items and policies that could alter the lives of physicians. I count on them to bring these issues to my attention, and then I can do a "deep dive" of my own on topics that I am interested in.

D: How much time do you dedicate to staying up to date with political topics in general? And medical topics specifically?

Dr. C: Surprisingly—not a lot! Once you know how the process works and devote time to building some relationships, it is not really hard to maintain knowledge. There are a lot of people out there that want to help you advocate your platform. I would say in a given month, I spend about 4-8 hours keeping up with political advocacy in general. This would be considered the high end of the scale for involvement though, and physicians could make a huge impact with just one hour a month!

D: So assuming this little talk is as motivational as we hope it might be, what would you recommend to our readers as an action step they can take in order to begin their own journey to political activity?

Dr. C: Sign up for one of the grassroots action digest emails from a trusted source such as the AOA or ACEP. Read the email, and pick a topic that you have interest in. Then, reach out to your legislative office on the topic with your thoughts and opinions. Do that once a month and if you do nothing else—you will be more active than the vast majority of your colleagues.

My proposition is simply this: what if each of us took 10 minutes this week to begin our journey to become more informed? What if wherever we're at in our medical career, or political knowledge base, we took 10 minutes each week to

engage in our patients' needs politically? How much change could a generation of physicians create? I invite you to start today. **Use the hashtag #taketen to share your results, thoughts, and activities with us on social media.** Let's get to work.

Where to start?

The following are a few suggested resources to get you started on your journey into politics...cue *House of Cards* theme music...

UNITED STATES CONGRESS

www.congress.gov

This is your go-to resource for information on the current bills in Congress, members of the relevant committees, and when votes will occur.

AMERICAN OSTEOPATHIC ASSOCIATION

www.osteopathic.org

Our home for all things osteopathic. Be sure to look at the advocacy link and sign-up for the next DO Day! Investigate the Grassroots Osteopathic Advocacy Link (GOAL) handbook - a simple step-by-step guide to advocacy.

AMERICAN COLLEGE OF EMERGENCY PHYSICIANS

www.acep.org/advocacy

A more emergency medicine specific source with direct links to contact the politicians representing you regarding issues concerning your profession.

OMEGA BETA IOTA

www.omegabetaiota.org

This organization was founded in 2007 to recognize the importance of medical students in political action. Membership requirements are detailed on the website and certainly something to consider as you progress through your schooling.

USING OMT TO RESOLVE PERSISTENT CONCUSSION SYMPTOMS

The Multi-Disciplinary Approach in the ED

Daniel Hutchinson, OMS-III

Marian University COM, Indianapolis IN



While sitting in the physician area eagerly waiting for my next opportunity to see a patient, my attending is handed a new patient chart by a nurse. He quickly relays the chart to me and instructs me to figure out the patient's complication. I read the chief complaint of "headache and nausea" and my mind quickly runs through common complications and life-threatening possibilities to rule out before entering the room—migraines, hemorrhages, meningitis, etc.

Being a good medical student, I check his vital signs before entering the room. Everything is within normal limits and non-concerning. His blood pressure is 125/80, pulse 90 bpm, oxygen saturation 99%, respiratory rate 16, and temperature 98.9°F. I enter the room and begin obtaining my history.

The patient is a 19-year-old male who presents to the emergency room with symptoms of persistent nausea/vomiting, headache, and daytime somnolence which began immediately after receiving a significant blow to his head during football practice three weeks ago. After his initial trauma, he states he came into our ED and was diagnosed with a concussion after a CT scan revealed no significant pathology.

He has a history of two traumatic brain injuries from prior concussions, both of which occurred over two years ago. The patient had similar post-concussion symptoms before, but they never lasted this long; the symptoms previously resolved after a couple days of rest. No remedy has helped for this concussion and the patient's mother is especially concerned that his symptoms will not resolve.

He is otherwise healthy with no concerning past medical history outside of the prior concussions. No medications are taken regularly. He has only used aspirin a couple of times for his headache in the past 3 weeks. There is no concerning past surgical history, family history, social history, nor allergy of note.

I move on to my physical exam. Cardiac exam reveals a regular rate and rhythm, normal S1 and S2, and I am unable to identify anything that resembles a murmur. Lung sounds are clear bilaterally with good chest wall movement. Abdominal exam

reveals present bowel sounds and there is no discomfort with palpation in any of the four quadrants. Kernig's and Brudzinski's Sign are negative. Neurologic exam reveals all cranial nerves are intact, muscle strength is 5/5 bilaterally, reflexes are 2+ bilaterally, proprioception is intact, heel-to-shin intact, and Romberg's sign is negative.

Review of systems is non-contributory with no recent illnesses or sick contacts. Labs (CBC, CMP) were within normal limits. This guy is otherwise healthy. The only seemingly plausible reason for his lingering symptoms is his recent history of a concussion. I head back to meet with my attending to discuss how we will move forward with this patient.

Having never really treated a concussion before, I am surprised by what seems to be a very restricted range of options moving forward. My attending states that "we can't do much but observe him" and to let the patient know he will just need more time and rest in order to recover. "We can give him a referral to a neurologist if he would like."

Initial management of concussions is based upon avoidance of further traumatic head injury and symptom management for the first couple of days. Acetaminophen and NSAIDs can be used to ease the headache, but they can become ineffective and worsen rebound headaches. Nausea/vomiting can be aided by anti-emetic medications. Dizziness and drowsiness are suggested to be treated with rest. Any strenuous activity that raises the heart rate or cognitive strain should be avoided until the post-concussive symptoms completely resolve.¹ Well, what if those symptoms will not resolve despite these recommendations?

Seeing concussions as such prominent and alarming subjects in sports today, I was disheartened by the seemingly limited options to help this patient. I was displeased leaving my patient stuck with their symptoms and telling them to rest while waiting it out; however, I realize that is the recommended standard of care today.

I pondered how my OMT training could possibly impact this situation. Once my shift was complete, I began to search the internet for anecdotes or studies eager to find an alternative treatment. Pleasantly surprised, I found a few studies revealing that there has been success employing OMT to resolve persistent concussion symptoms.

A sports injury-related study by The Journal of the American Osteopathic Association showed that only 80%-90% of concussion patients have their symptoms resolve within 7-10 days post-trauma, and a pediatric traumatic brain injury clinic concluded approximately 11% of patients have symptoms at three months and 2.3% of patients have symptoms at one year.²⁻⁴ A case-report followed the case of a 16-year-old female with a history of three TBIs with similar persistent symptoms as my patient. After six weekly OMT sessions directed at cranial and cervical dysfunctions, the patient was able to return to her normal lifestyle without any complications.⁵

Another case study utilized OMT to treat a 27-year-old concussion patient with similar symptoms to my patient 5 days after his trauma yielding significant improvement after

OMT. The patient was treated by resolving a sphenobasilar synchondrosis torsion, a C3-C5 somatic dysfunction, T2-T3 dysfunction, and a rib inhalation dysfunction during a single 25-minute session of OMT. Immediately after treatment, the patient reported complete resolution of his symptoms. One week after treatment, the patient returned for a follow-up claiming to have remained symptom-free.⁶

The reason that some concussion symptoms last longer than two weeks is not well understood. Physiologic changes resulting from the trauma such as intracranial metabolic changes, altered blood flow, decreased glymphatic movement, and anatomic dysfunctions of the cranial bones have been hypothesized. Somatic dysfunction of the cranial vault can lead to compensatory changes in the cervical and thoracic regions leading to additional and worsening symptoms.^{1,5,6}

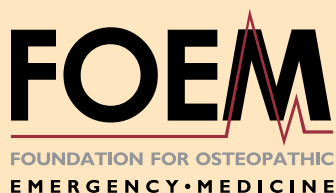
I firmly believe that each hypothesis contributes to persistent post-concussion symptoms and all can be addressed through the application of OMT (Table 1). I regret not utilizing it on my patient and have come to realize how important it is to consider integrating OMT as part of a multi-disciplinary approach in the emergency department for certain patients.

So, next time you find yourself trying to think of ways in which to treat an emergency room patient, especially a post-concussion patient with persistent symptoms, do not forget your countless hours of training in OMT. Integrate OMT into your arsenal of options in order to achieve better outcomes.

| DYSFUNCTION | OMT TECHNIQUES FOR IMPROVEMENT | RATIONALE |
|--|---|---|
| SBS Compression | SBS Decompression | -Improved Primary Respiratory Mechanism + Cranial Rhythmic Impulse |
| Compression of 4th Ventricle | CV4 Technique | -Encourage CSF fluid motion |
| Cranial Suture Compression | Frontal Lift-Parietal Lift V-spread Technique Venous Sinus Drainage | -Improve inherent motion of cranial vault to help normalize overall function |
| Cranial Strain Patterns | Direct BLT/Indirect BLT | -Normalize structure to optimize function -Release membranous tension causing increased circulation + lymphatic drainage |
| Thoracic Inlet Restriction | Direct/Indirect BLT Direct/Indirect Myofascial Release | -Improve overall lymphatic + glymphatic drainage |
| Cervical Spine Somatic Dysfunction | Articulatory Technique Direct/Indirect BLT HVLA Suboccipital Release | -Improve muscular hypertonicity -Normalize parasympathetic ANS output |
| Upper Thoracic Spine Somatic Dysfunction | Articulatory Technique Direct/Indirect BLT HVLA | -Normalize sympathetic ANS output to the head + neck -Improve muscular hypertonicity |

Table 1. Possible post-concussion somatic dysfunctions that respond to OMT techniques.⁴

Join the Foundation for Osteopathic Emergency Medicine at the 2017
ACOEP Spring Seminar in Bonita Springs, FL!



5K & 1-Mile DO DASH

Wednesday, April 19, 2017
5:45 pm – 6:45 pm

Get the blood flowing for a good cause! All conference attendees and their families/ guests – from walkers and novice runners to seasoned marathoners – are welcome to join the FOEM 5K Run for Research and one-mile DO-Dash!

| REGISTRATION | BEFORE 3/18/17 | AFTER 3/18/17 |
|--|-------------------|------------------|
| 5K rate for attending physicians | \$60 | \$75 |
| 5K rate for students, residents & family | \$30 | \$40 |
| FOEM 1-Mile DO Dash (all) | \$20 | \$25 |

Registration includes t-shirt. Your shirt size is guaranteed if you sign up by March 18!



For more information or to register for an event, please contact Stephanie Whitmer
at swhitmer@foem.org, or register online at acoep.org/spring.



FOEM Case Study Poster Competition

Wednesday, April 19, 2017 from 2:00 – 5:00 pm

The Foundation for Osteopathic Emergency Medicine (FOEM) is proud to present the annual Case Study Poster Competition, in which students and residents present interesting or unique cases that have presented at their hospital. Winners receive certificates, cash prizes, and recognition in FOEM publications throughout the year. The deadline for submission of applications and abstracts is January 31, 2017.

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TUESDAY, MAY 23, 2017



A Day Of Giving To Support The Foundation For Osteopathic Emergency Medicine

Join us for a virtual fundraiser in support of osteopathic emergency professionals nationwide! Making an impact has never been easier – volunteers will be taking donations online, over the phone, or by mail so be prepared to give generously to help us reach our goals.

For more information, or to sign up as a volunteer,
please contact Stephanie Whitmer at swhitmer@foem.org



WHAT'S NEW IN EMERGENCY MEDICINE?

Aadil Vora, OMS-III

NSU College of Osteopathic Medicine

ACOEP-SC Research Chair

Determining The Futility Of Resuscitation Following Cardiac Arrest (December 2016)

Early Identification of Patients With Out-of-Hospital Cardiac Arrest With No Chance of Survival and Consideration for Organ Donation.

Jabre P, Bougouin W, Dumas F, Carli P, Antoine C, Jacob L, Dahan B, Beganton F, Empana JP, Marijon E, Karam N, Loupy A, Lefaucheur C, Jost D, Cariou A, Adnet F, Rea TD, Jouven X

Ann Intern Med. 2016 Dec;165(11):770-778.

The demand for organs largely outweighs the supply. It is estimated that 22 people die each day waiting for a transplant (1). Early identification of potential donors in out-of-hospital cardiac arrest (OHCA) and rapid transport to appropriate hospitals may help to mitigate the shortage. In this retrospective study of 772 patients, the authors assert that the following criteria has a 100% specificity for death in OHCA:

1. Arrest not witnessed by emergency medical services personnel
2. Non-shockable initial cardiac rhythm
3. No return of spontaneous circulation prior to administration of third 1 mg dose of epinephrine

Therefore, the authors conclude that these criteria may help guide the organ procurement process. Nevertheless, the study has several limitations including its retrospective nature which ignores several important variables such as the variability of timing in epinephrine administration, the quality of cardiopulmonary resuscitation being performed, and the post-arrest care delivered. Moreover, the ethical dilemma is whether resuscitation should be prolonged to exhaust every chance at a patient's recovery; or if EMS should terminate resuscitation sooner in a patient who has almost no chance at recovery so that organ donation can be initiated.

1. "Organ Donation Statistics." US Department of Health and Human Services. <https://www.organdonor.gov/statistics-stories/statistics.html>. Accessed: 2/17/17.

Early Physical Activity Following Acute Concussion In Children And Adolescents (January 2017)

Association Between Early Participation in Physical Activity Following Acute Concussion and Persistent Postconcussive Symptoms in Children and Adolescents.

Grool AM, Aglipay M, Momoli F, Meehan WP 3rd, Freedman SB, Yeates KO, Gravel J, Gagnon I, Boutis K, Meeuwisse W, Barrowman N, Ledoux AA, Osmond MH, Zemek R, Pediatric Emergency Research Canada (PERC) Concussion Team *JAMA.* 2016 12;316(23):2504-2514.

For children and adolescents following a concussion, physical rest is usually recommended, but there is little evidence to determine whether or not abstaining from physical exertion actually hastens the recovery of patients. A recent secondary analysis of prospectively gathered data suggests that light physical activity may be superior to no physical activity in preventing post-concussion symptoms. The study examined more than 2,400 children diagnosed with an acute concussion in the ED and found that physical activity in the first seven days following an acute concussion was associated with significantly less Persistent Post Concussive Symptoms (PPCS) at 28 days. PPCS include headaches, dizziness, anxiety, memory impairment, irritability, etc. The limitations of this study include confounding variables such as the amount of exercise in the physical activity group and the type of rest in the physical inactivity group. An important question is whether the children in the physical inactivity group were partaking in more cognitive activity, which has been linked to more PPCS. In addition, the study was subject to recall bias as symptom data was collected by questionnaires as well as the inherent issue that healthier patients will be less subject to exacerbation of symptoms with exertion despite propensity score matching. A well-designed randomized clinical trial is needed to determine the benefits of early physical activity following concussion. Until then, physical rest until resolution

of the symptoms is still the current recommendation, and encouragement of light activity after 7 days of PPCS.

Iloprost Therapy For Severe Frostbite (December 2016)

Treatment of severe frostbite with iloprost in northern Canada.

Poole A, Gauthier J

CMAJ. 2016;188(17-18):1255.

Frostbite is a painful condition caused by cold-induced cell death, further aggravated by inflammatory processes causing tissue ischemia that usually starts distally and extends proximally. The most common areas are the hands, feet, nose, and ears. In subfreezing temperatures, ice crystals form extracellularly, and intracellularly if freezing is rapid enough. Cell lysis instigates an inflammatory process mediated by prostaglandins and thromboxane, which leads to tissue necrosis by vascular occlusion. Besides rewarming and debridement, few options exist for the treatment of frostbite. Iloprost was shown to reduce the risk of amputation by 60% in a 2011 French study (1) comparing buflomedil versus iloprost treatment in 47 patients. A recent case report has advocated that treatment with iloprost is effective and safe. The writers recommend Iloprost to be given to patients with third to fourth-degree frostbite (ie. involving the proximal phalanx or metacarpal or metatarsal bones of an extremity) in the first 48 hours of the insult. It can be given with or without tPA, but most importantly, iloprost can be initiated in the field (2).

(1) A controlled trial of a prostacyclin and rt-PA in the treatment of severe frostbite.

Cauchy E, Cheguillaume B, Chetaille E
N Engl J Med. 2011;364(2):189.

(2) Frostbite: a practical approach to hospital management.

Handford C, Buxton P, Russell K, Imray CE, McIntosh SE, Freer L, Cochran A, Imray CH
Extrem Physiol Med. 2014;3:7.

Introducing ACOEP's Resident Student Organization Chapter



Gabi Crowley, ACOEP Staff Member

At ACOEP, we strive to provide the very best experiences for our members. That's why this coming year, ACOEP's Student and Resident Chapters will be joining forces to create ACOEP's Resident and Student Organization, otherwise known as RSO.

"We hold a vital role in connecting future leaders in the emergency medicine profession with education and inspiration, grounded in an osteopathic foundation," ACOEP Student Chapter President Dominic Williams said.

With the combination of the two chapters this year, both students and residents can look forward to a more collaborative and efficient way of strategizing and planning for events including Scientific Assembly, Spring Seminar, and other new projects the chapter's members may want to pursue.

"By combining we can work together as one, which will save time, money, and allow leadership to have more time to brainstorm new events for our membership," President of ACOEP's Resident Chapter, Kaitlin Bowers, DO, said.

Bowers is hopeful that the creation of ACOEP's RSO will provide an all-around greater experience for not only osteopathic students and residents, but also for ACGME residents and allopathic medical students.

"The RSO is focused on continuing to provided quality innovative opportunities for residents and students. As we start to have combined events at conferences, I think you can expect to see more interactive hands-on labs and bigger name speakers," she said.

Bowers also believes that the merging of ACOEP's Resident and Student Chapters will form connections between students and residents.

"Students will have more direct exposure to residents and because of this, I expect mentorship to flourish," she said.

Along with this new and exciting chapter for ACOEP, comes plenty of opportunity for students and residents to get involved with RSO.

"I'd absolutely encourage reaching out to some of the current board with questions. It's a unique opportunity to work with a very talented group of individuals all excited about emergency medicine," Williams said.

Stay tuned in the upcoming months for more updates and news regarding ACOEP's RSO including a new website, logo, and social media pages!

A photograph of three young children swinging happily on a swing set. The child in the foreground has red hair and is wearing a dark jacket and purple pants. The child behind her has blonde hair and glasses, wearing a grey jacket over a teal shirt. The child to the right has blonde hair and is wearing a tan jacket. All three have their mouths open in joyful screams. The background is a blurred outdoor setting with green grass and trees.

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RESIDENCY SPOTLIGHT: Kent Hospital Emergency Medicine Residency Program

SIZE: Kent Hospital is 359 bed community hospital serving 300,000 residents of Rhode Island – our EM residency program is a four-year program with 26 current residents, but we have been approved for 32.

INSTITUTION BED SIZE: 359

ED VISITS PER YEAR: 70,000

ACGME ACCREDITATION STATUS: Initial Accreditation

HOSPITAL LOCATIONS: Our main site is located in Warwick, RI; however, we are part of Care New England which includes hospitals in Providence, RI as well.

AVAILABLE FELLOWSHIPS: GI & Hyperbaric

WHAT IS UNIQUE ABOUT YOUR PROGRAM? We are both AOA and ACGME accredited. We offer 32 blocks of emergency medicine and outside rotations at Hasbro Children's Hospital in Providence, RI (Pedi EM), Boston Children's Hospital (Toxicology) in Boston, MA and Shock Trauma at Maryland Shock Trauma Center in Baltimore, MD. Our Emergency Department is separated into six different Care Teams, giving a great deal of focus on teaching and education. We offer two blocks of electives, 3 weeks of vacation per year, and conference and educational stipends.

WHAT DO YOU DO OUTSIDE OF THE HOSPITAL? Rhode Island is in fact the Ocean State after all! Kent Hospital's EM Residency Program likes to take full advantage of our beautiful surroundings. We participate in MedWars at a local park on the water; we also host team building activities at various boat clubs and national parks. We are lucky to have beautiful beaches in very close proximity. Our residents also enjoy spending time in our capital city, Providence, which includes lots of award-winning restaurants and art. Providence is also home to many colleges and universities, giving the city a great deal of culture and diversity. We are also located less than 30 minutes to Newport, RI, where you can explore mansions and historical homes. Kent Hospital is located in Warwick, Rhode Island which is in driving distance to both Boston and New York City.

WHAT ARE THREE WORDS THAT DESCRIBE YOUR RESIDENCY? One big family!

References

REFERENCES FROM PG 6: WHITE COAT TO WHITE HOUSE

1. Membership. (n.d.). Retrieved February 22, 2017, from <http://trumanproject.org/home/about/membership>

REFERENCES FROM PG 11: HOW THE IMMIGRATION BAN HITS A LITTLE TOO CLOSE TO HOME

1. Heisig E. Sudanese Cleveland Clinic resident removed from U.S. Returns. Cleveland.com. http://www.cleveland.com/metro/index.ssf/2017/02/sudanese_cleveland_clinic_resi.html. Published February 7, 2017. Accessed February 8, 2017.
2. Wanshel E. The moving story behind this viral photo of a doctor's powerful sign. *Huffington Post*. February 2, 2017. http://www.huffingtonpost.com/entry/doctor-holding-sign-mom-trump-muslim-travel-ban_us_58937a91e4b07595d05a4b3b. Accessed February 8, 2017.
3. Joint letter on President Trump's immigration executive order. (2017). <https://www.aamc.org/download/476034/data/jointletteronpresidenttrumpsimmigrationexecutiveorder.pdf>. Accessed February 8, 2017.
4. The complexities of physician supply and demand: Projections from 2014 to 2025, IHS inc, (2016). https://www.aamc.org/download/458082/data/2016_complexities_of_supply_and_demand_projections.pdf. Accessed February 8, 2017.
5. Active physicians who are international medical graduates (IMGs) by specialty, 2015. AMA; December 2015. <https://www.aamc.org/data/workforce/reports/458506/1-7-chart.html>. Accessed February 8, 2017.
6. Ranasinghe PD. International medical graduates in the US physician workforce. *The Journal of the American Osteopathic Association*. 2015;115(4):236. doi:10.7556/jaoa.2015.047.
7. Fordyce MA, Chen FM. Osteopathic physicians and international medical graduates in the rural primary care physician workforce. *Family Medicine*. 2012;44(6).
8. Hart LG, Skillman SM, Fordyce M, Thompson M, Hagopian A, Konrad TR. International medical graduate physicians in the United States: Changes since 1981. *Health Affairs*. 2007;26(4):1159–1169. doi:10.1377/hlthaff.26.4.1159.
9. Tsugawa Y, Jena AB, Orav EJ, Jha AK. Quality of care delivered by general internists in US hospitals who graduated from foreign versus US medical schools: Observational study. *BMJ*. February 2017;j273. doi:10.1136/bmj.j273.
10. Jarrett L, Marsh R, Koran L. Homeland security suspends travel ban. *CNN*. February 4, 2017. <http://www.cnn.com/2017/02/03/politics/federal-judge-temporarily-halts-trump-travel-ban-nationwide-ag-says/index.html>. Accessed February 8, 2017.
11. Schabner D. NYC doctor stranded in Sudan by travel ban glad to get back to patients. abcnews.com. <http://abcnews.go.com/US/york-doctor-stranded-sudan-travel-ban-glad-back/story?id=45283627>. Published February 5, 2017. Accessed February 8, 2017.

12. Jarrett L, de Vogue A. Travel ban hearing: Fiery judges put lawyers on their heels. *CNN*. February 7, 2017. <http://www.cnn.com/2017/02/07/politics/travel-ban-oral-arguments/>. Accessed February 8, 2017.

13. Maria C Savoia, Mona M Signer. Statement on the executive order suspending entry into the United States, NRMP. <http://www.nrmp.org/wp-content/uploads/2017/02/NRMP-Statement-on-Immigration-Executive-Order.pdf>. Accessed February 8, 2017.

14. Countries of citizenship of IMGs in direct patient care in the United States, 2009. Publisher unknown; March 25, 2010. <http://www.faimer.org/research/citizenship.jpg>. Accessed February 8, 2017.

REFERENCES FROM PG 12: MEDICAIDED

1. Social Security. (n.d.). Retrieved from <https://www.ssa.gov/disabilityresearch/wi/medicaid.htm>
2. Medicaid & CHIP. (2017, January). Retrieved from <https://www.medicaid.gov/medicaid/program-information/downloads/accomplishments-report.pdf>
3. Poverty Guidelines. (2017, February 02). Retrieved from <https://aspe.hhs.gov/poverty-guidelines>
4. NHE-Fact-Sheet. (n.d.). Retrieved from <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet.html>
5. Niska et al. National Hospital Ambulatory Medical Care Survey: 2007 Emergency Department Summary. National Health Statistics Reports; no 26. Hyattsville, MD: NCHS, 2010.
6. Study Shows ER Visits Up Under ACA. Retrieved from <http://obamacarefacts.com/2015/05/05/study-shows-er-visits-up-under-aca/>
7. The "prudent layperson" definition of an emergency medical condition. (n.d.). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11781904>
8. American Medical Association, 'Physician Marketplace Report: The Impact of EMTALA on Physician Practices,' 2003. <http://www.ama-assn.org/ama1/pub/upload/mm/363/pmr2003-02.pdf>
9. ER Visits Continue to Rise Since Implementation of Affordable Care Act. (n.d.). Retrieved from <http://newsroom.acep.org/2015-05-04-ER-Visits-Continue-to-Rise-Since-Implementation-of-Affordable-Care-Act>
10. Taubman, S. L., Allen, H. L., Wright, B. J., Baicker, K., & Finkelstein, A. N. (2014). Medicaid Increases Emergency-Department Use: Evidence from Oregon's Health Insurance Experiment. *Science*, 343(6168), 263–268. doi:10.1126/science.1246183
11. Finkelstein, A. N., Taubman, S. L., Allen, H. L., Wright, B. J., & Baicker, K. (2016). Effect of Medicaid Coverage on ED Use — Further Evidence from Oregon's Experiment. *New England Journal of Medicine*, 375(16), 1505–1507. doi:10.1056/nejmp1609533

12. Pines, J. M., Zocchi, M., Moghtaderi, A., Black, B., Farmer, S. A., Hufstetler, G.,...Pilgrim, R. (2016). Medicaid Expansion In 2014 Did Not Increase Emergency Department Use But Did Change Insurance Payer Mix. *Health Affairs*, 35(8), 1480-1486. doi:10.1377/hlthaff.2015.1632

13. Connecting Underserved Patients to Primary Care After Emergency Department Visits. (n.d.). Retrieved from <https://innovations.ahrq.gov/perspectives/connecting-underserved-patients-primary-care-after-emergency-department-visits>

REFERENCES FROM PG 18: COMBATting SYNTHETIC CANNABINOIDS IN YOUR EMERGENCY DEPARTMENT

1. Little PJ, Compton DR, Johnson MR, Melvin LS, Martin BR. Pharmacology and stereoselectivity of structurally novel cannabinoids in mice. *J Pharmacol Exp Ther*. 1988;247:1046-51.
2. Castaneto MS, Gorelick DA, Desrosiers NA, Hartman RL, Pirard S, Huestis MA. Synthetic cannabinoids: epidemiology, pharmacodynamics, and clinical implications. *Drug Alcohol Depend*. 2014 Nov 1;144:12-41. doi: 10.1016/j.drugalcdep.2014.08.005. Epub 2014 Aug 18.
3. Office of National Control Policy. The White House. Synthetic Drugs. Available from: <http://www.whitehouse.gov/ondcp/ondcp-fact-sheets/synthetic-drugs-k2-spice-bath-salts>.
4. National Institute of Drug Abuse. <https://www.drugabuse.gov/related-topics/trends-statistics/infographics/synthetic-marijuana-lands-thousands-young-people-in-er-especially-young-males>. Published February 2013.
5. Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. Monitoring the Future: National Survey Results on Drug Use 1975-2011. Available from http://www.monitoringthefuture.org/pubs/monographs/mtf-vol2_2011.pdf.
6. American Association of Poison Control Centers. Available from <http://www.aapcc.org/alerts/synthetic-cannabinoids/>
7. Hermanns-Clausen M1, Kneisel S, Szabo B, Auwärter V. Acute toxicity due to the confirmed consumption of synthetic cannabinoids: clinical and laboratory findings. *Addiction*. 2013 Mar;108(3):534-44. doi: 10.1111/j.1360-0443.2012.04078.x. Epub 2012 Nov 1.
8. Musshoff F1, Madea B, Kernbach-Wighton G, Bicker W, Kneisel S, Hutter M, Auwärter V. Driving under the influence of synthetic cannabinoids ("Spice"): a case series. *Int J Legal Med*. 2014 Jan;128(1):59-64. doi: 10.1007/s00414-013-0864-1. Epub 2013 May 1.
9. Adamowicz P, Gieroni J. Acute intoxication of four individuals following use of the synthetic cannabinoid MAB-CHMINACA. *Clin Toxicol (Phila)*. 2016 Sep;54(8):650-4. doi:

10.1080/15563650.2016.1190016. Epub 2016 May 26.

10. Genen L, Bienenfeld D. Cannabis-Related Disorders Clinical Presentation. Retrieved from <http://emedicine.medscape.com/article/286661-clinical>. Updated October 5, 2016.

11. Buser GL, Gerona RR, Horowitz BZ, Vian KP, Troxell ML, Hendrickson RG, Houghton DC, Rozansky D, Su SW, Leman RF. Acute kidney injury associated with smoking synthetic cannabinoid. *Clin Toxicol (Phila)*. 2014 Aug;52(7):664-73. doi: 10.3109/15563650.2014.932365.

12. Harris CR, Brown A. Synthetic cannabinoid intoxication: a case series and review. *J Emerg Med*. 2013;44:360-366.

13. Castellanos D, Gralnik L. Synthetic cannabinoids 2015: An update for pediatricians in clinical practice. *World J Clin Pediatr*. 2016 Feb 8; 5(1): 16-24. Published February 8th, 2016.

14. Kraft, A. Big increase in deaths, poisonings from synthetic marijuana. Retrieved from <http://www.cbsnews.com/news/deaths-poisonings-from-synthetic-marijuana-spice-k2/>. Published June 11, 2015.

REFERENCES FROM PG 20: SMOKING CESSATION COUNSELING IN THE EMERGENCY DEPARTMENT

1. U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress. A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014 [accessed 2017 Jan 8].
2. Glauser, J. (2001), Rationing and the Role of the Emergency Department as Society's Safety Net. *Academic Emergency Medicine*, 8: 1101-1106. doi:10.1111/j.1553-2712.2001.tb01123.x [accessed 2017 Jan 8].
3. Lowenstein, S. R., Tomlinson, D., Koziol-McLain, J. and Prochazka, A. (1995), Smoking Habits of Emergency Department Patients: An Opportunity for Disease Prevention. *Academic Emergency Medicine*, 2: 165-171. doi:10.1111/j.1553-2712.1995.tb03189.x [accessed 2017 Jan 8].
4. Bernstein, S. L., Boudreaux, E. D., Cydulka, R. K., Rhodes, K. V., Lettman, N. A., Almeida, S., . . . Kellermann, A. L. (2006). Tobacco Control Interventions in the Emergency Department: A Joint Statement of Emergency Medicine Organizations. *Annals of Emergency Medicine*, 48(4). doi:10.1016/j.annemergmed.2006.02.018 [accessed 2017 Jan 8].
5. Bernstein SL, D'Onofrio G, Rosner J, et al. Successful Tobacco Dependence Treatment in Low-Income Emergency Department Patients: A Randomized Trial. *Annals of Emergency Medicine*. 2015;66(2):140-147. doi:10.1016/j.annemergmed.2015.03.030

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[accessed 2017 Jan 14.

6. Katz, D. A., Vander Weg, M. W., Holman, J., Nugent, A., Baker, L., Johnson, S., Hillis, S. L. and Titler, M. (2012), The Emergency Department Action in Smoking Cessation (EDASC) Trial: Impact on Delivery of Smoking Cessation Counseling. *Academic Emergency Medicine*, 19: 409–420. doi:10.1111/j.1553-2712.2012.01331.x [accessed 2017 Jan 15]

REFERENCES FROM PG 22: SOFT TISSUE INJURIES IN THE WILDERNESS

1. Gosselin R, Spiegel D, Coughlin R, Zirkle L. Injuries: The Neglected Burden in Developing Countries. *Who.int*. <http://www.who.int/bulletin/volumes/87/4/08-052290/en>. Published April 2009. Accessed December 2016.
2. Brody H. How To Treat The 6 Most Common Injuries In The Backcountry: Hope for the best, but prepare for the worst. *Theoutbound.com*. <https://www.theoutbound.com/hartley-brody/how-to-treat-the-6-most-common-injuries-in-the-backcountry>. Published February 2016. Accessed January 2017.
3. Wilkerson J, Zafren K. Chapter 12 - Soft Tissue Injuries. *Medicine for Mountaineering and other Wilderness Activities* 6th Edition. Seattle, WA: Mountaineers Books; 2010.
4. A. Drosou, A Falabella, R Kirsner. (2003). Antiseptics on Wounds: An Area of Controversy. *Medscape*. Retrieved 12/19/2016 from <http://www.medscape.com/viewarticle/456300>.

REFERENCES FROM PG 24: TAMOXIFEN INDUCED ACUTE PANCREATITIS CASE REPORT

1. Fagenholz, P., Fernandez-del Castillo, C., Harris, N., Pelletier, A., & Camargo, C. (2007, November). Direct medical costs of acute pancreatitis hospitalizations in the United States. *Pancreas*, 302–7. Retrieved January 17, 2017, from <https://www.ncbi.nlm.nih.gov/pubmed/18090234>
2. Gardner, T. B., MD. (2016, September 12). Acute Pancreatitis. Retrieved January 17, 2017, from <http://emedicine.medscape.com/article/181364-overview#a6>
3. Wang, G.-J., Gao, C.-F., Wei, D., Wang, C., Ding, S.-Q., 2009. Acute pancreatitis: Etiology and common pathogenesis. *World J Gastroenterol* 15, 1427–1430. doi:10.3748/wjg.15.1427
4. Shrestha, S. K. (2016, June 12). Acute Pancreatitis - Case Discussion. Retrieved January 17, 2017, from <http://epomedicine.com/clinical-cases/acute-pancreatitis-case-discussion/>

5. Seales CE, Ooi TC. Under recognition of chylomicronemia as a cause of acute pancreatitis. *CMAJ*. 1992;147:1806–8

6. Valdivielso, Pedro, Alba Ramírez-Bueno, and Nils Ewald. "Current Knowledge of Hypertriglyceridemia Pancreatitis." *European Journal of Internal Medicine* 25.8 (2014): 689–94. Web.
7. Rubins HB, Robins SJ, Collins D, Nelson DB, Elam MB, Schaefer EJ, et al. Diabetes, plasma insulin and cardiovascular disease: Subgroup analysis from the Department of Veterans Affairs high density lipoprotein intervention trial (VA-HIT) *Arch Intern Med*. 2002;162:2597–604
8. Hooper L, Thompson RL, Harrison RA, Summerbell CD, Ness AR, Moore HJ, et al. Risks and benefits of omega 3 fats for mortality, cardiovascular disease and cancer: Systematic review. *BMJ*. 2006;332:752–60
9. Hozumi, Y., Kawano, M., Saito, T., & Miyata, M. (1998). Effect of Tamoxifen on Serum Lipid Metabolism. *Journal of Clinical Endocrinology and Metabolism*. Retrieved January 17, 2017.
10. Shea, M. (2010, May 31). Hyperlipidaemia - lipid in EDTA tube. Retrieved February 13, 2017, from https://commons.wikimedia.org/wiki/File:Hyperlipidaemia_-_lipid_in_EDTA_tube.jpg

REFERENCES FROM PG 26: WANDERLUST?

1. Roberts J, Lin J, Weiner S. The nuts & bolts of global emergency medicine. . 2016;1.
2. Arora P, Bhavnani A, Kole T, Curry C. Academic emergency medicine in India and international collaboration. *Emergency Medicine Australasia*. 2013;25(4):294–296.
3. Counselman FL, Marco CA, Patrick VC, et al. A study of the workforce in emergency medicine: 2007. *Am J Emerg Med*. 2009;27(6):691–700.
4. Pothiwala S, Anantharaman V. Academic emergency medicine in india. *Emergency Medicine Australasia*. 2013;25(4):359–364.
5. Arnold JL. International emergency medicine and the recent development of emergency medicine worldwide. *Ann Emerg Med*. 1999;33(1):97–103.
6. International Emergency Medicine Fellowship Consortium. IEM fellowship programs. <http://www.iemfellowships.com>. Updated 2016. Accessed 8 February, 2017.
7. Roberts J, Lin J, Weiner S. The nuts & bolts of global emergency medicine. . 2016;1.

REFERENCES FROM PG 32: PREHOSPITAL QUALITY IMPROVEMENT AND EDUCATION IN CARE FOR PARCA PATIENTS

1. Rui P, Kang K, Albert M. National Hospital Ambulatory Medical Care Survey: 2013 Emergency Department Summary Tables.
2. Hayes, Joe. "EMS Quality Improvement EMS Quality Assurance." EMSWorld.com. EMSWorld, 12 Oct. 2012. Web.
3. McNally, Bryan, Rachel Robb, Monica Mehta, Kimberly Ellano, Amy Valderrama, Paula Yoon, Comilla Sasson, Allison Crouch, Amanda Perez, Robert Merritt, and Arthur Kellermann. "Out-of-Hospital Cardiac Arrest Surveillance --- Cardiac Arrest Registry to Enhance Survival (CARES)." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, 29 July 2011. Web.
4. American Heart Association Statistics Committee and Stroke Subcommittee. "Heart Disease and Stroke Statistics-2015 Update." Heart Disease and Stroke Statistics-2015 Update | Circulation. American Heart Association, 17 Dec. 2014. Web.

REFERENCES FROM PG 34: #TAKETEN: IT'S TIME TO ADD POLITICS TO THE PHYSICIAN REPERTOIRE

1. Society for Academic Emergency Medicine, news release, May 16, 2007. Accessed: February 2 2017.
2. Blendon, R. J., Benson, J. M. & Casey, L. S. Health Care in the 2016 Election — A View through Voters' Polarized Lenses. *N Engl J Med* 375, e37 (2016). Accessed February 2 2017.
3. Sanger-Katz, M., Your Surgeon Is Probably a Republican, Your Psychiatrist Probably a Democrat. *The New York Times*, (2016). Accessed February 3 2017.
4. Khullar, D., More doctors need to vote and get politically involved, October 3, 2016. <https://www.statnews.com/2016/10/03/vote-doctors-politics/>. Accessed: February 3 2017.

REFERENCES FROM PG 38: USING OMT TO RESOLVE PERSISTENT CONCUSSION SYMPTOMS

1. Meehan, William P., and Michael J. O'Brien. "REFERENCES." *Concussion in Children and Adolescents: Management*. UpToDate, Dec. 2016.
2. McCrory P, Meeuwisse W, Aubry M, et al Consensus statement on concussion in sport—the 4th International Conference on Concussion in Sport held in Zurich, November 2012. *Clin J Sport Med*. 2013;23(2):89-117.
3. Laker SR. Sports-related concussion. *Curr Pain Headache Rep*.

2015;19(8):41.

4. Choe MC, Valino H, Fischer J, et al Targeting the epidemic: interventions and follow-up are necessary in the pediatric traumatic brain injury clinic [published online March 20, 2015]. *J Child Neurol*. 2016;31(1):109-115.
5. Castillo, Iris, Kimberly Wolf, and Alexander Rakowsky. "Concussions and Osteopathic Manipulative Treatment: An Adolescent Case Presentation." *The Journal of the American Osteopathic Association* 116.3 (2016): 178.
6. Guernsey, David T., Adena Leder, and Sheldon Yao. "Resolution of Concussion Symptoms After Osteopathic Manipulative Treatment: A Case Report." *The Journal of the American Osteopathic Association* 116.3 (2016). <<http://jaoa.org/article.aspx?articleid=2498831>>.
7. Savarese, Robert G., John D. Capobianco, and John J. Cox, Jr. *OMT Review: A Comprehensive Review in Osteopathic Medicine*. 3rd ed. N.p.: Legis, n.d. Print.

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