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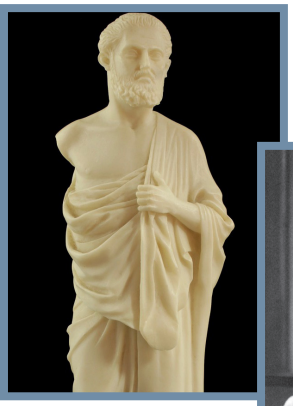

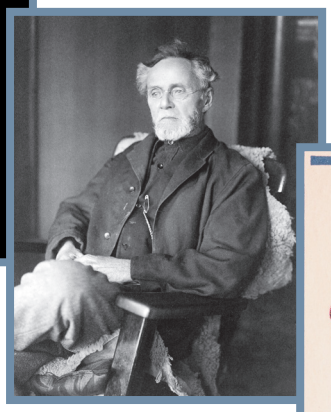

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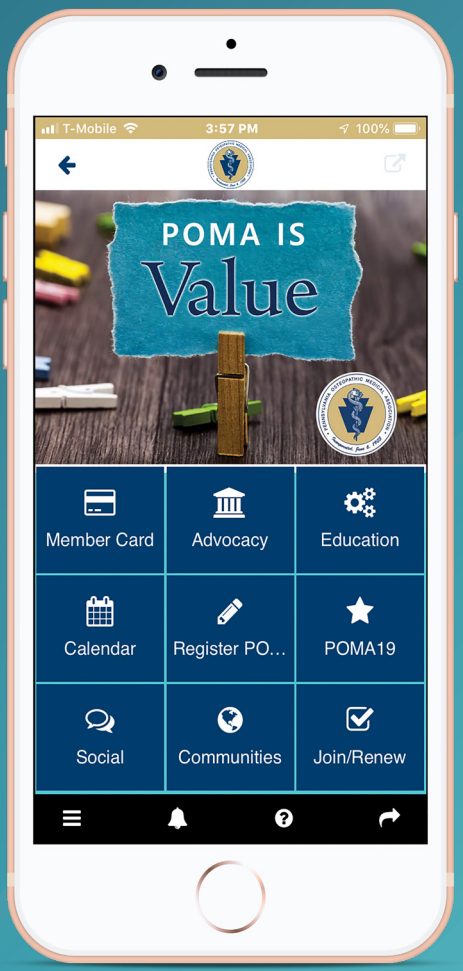

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THE Journal OF THE PENNSYLVANIA OSTEOPATHIC MEDICAL ASSOCIATION

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CONTENTS

ABOUT THE AUTHORS

Rossi Brown, DO

Paul H, DeHaan, MD

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Donald J. Sesso, DO

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Index to Advertisers

FROM THE EDITOR'S DESK

Mark B. Abraham, DO, JD

The Future of Medicine. An easy question to ponder. So much so that we tend to bring it up in various ways as themes for *The Journal*.

Medicine and healthcare are never stagnant. Something is changing somewhere and usually for the good — research into new therapies and treatments, technology and testing to help diagnose, etc. Then there are the issues which lean toward the not so good — reimbursement, coverage, prior authorizations, and the like. Lastly, we have the middle ground. These are the issues which tend to be "hot button" topics which we hear on the news, that politicians debate (often for their benefit and not that of the citizen) and often are discussed at cocktail parties (when one guest tends to presume that everyone in attendance thinks alike until the outlier is found and the martinis go flying...I digress), family dinners or even with patients when they ask for our opinion.

If you haven't heard, there will be ANOTHER Presidential Election in 2020. These seem to occur every four years but the debate starts the day after the prior one (Can you feel the sarcasm?). After 230 years with elections every four years, you would think the media would be used to it by now. There were differences and debates and concerns then just as now. The difference, technology and the speed of information. If you have your doubts, go back to your American History class. Read about the issues between George Washington, John Adams and Thomas Jefferson. Read the Federalist papers. Specifics on issues may change, but general viewpoints and the underlying sentiments remain consistent.

Currently, more and more focus is being paid to Medicare for All. I try as hard as I can to remain apolitical when writing. This will not be the case. You may believe healthcare is a fundamental right. You may believe Big Government should decide all. Perhaps you like the private sector. One thing is certain, you do have an opinion — as do I.

Let me be clear, **MEDICARE FOR ALL IS AN ABSOLUTELY HORRIBLE IDEA!** Clear enough? Good.

Why do I believe this? Believe it or not there already is something in this country which is set up to be a single payer system, one size fits all. It does not come close to working the way in which it is supposed to work. The Veterans Administration Hospitals and practitioners. The VA's failure is not because of the providers and those providing the healthcare and treatment. The reason for it not working is that the system cannot handle it. Many of you may have patients who seek care at the VA. The reason is not that they need to go to the VA; the reason is they need to go to you in the

(continued on page 23)

Mark B. Abraham, DO, JD
Editor-in-Chief

PRESIDENT'S POST

Joan M. Grzybowski, DO

Joan M. Grzybowski, DO
POMA President

Healthcare is a fast-paced, rapidly changing industry. It depends on quick decisions with a blend of human compassion. Today, technology is a third arm for most physicians. We carry our smart phone with multiple apps that can guide us through almost any medical problem. Our phones allow us to be a "mini me" specialist in almost any field by just a touch of our finger tips. Let me take you back in time through my retrospectoscope and explain how we arrived at our state of technology.

In the 1800s, doctors began to develop instruments and devices to examine and study the body. Instruments like microscopes and thermometers were used for the first time. In 1816 a French physician, Dr. Laennec invented the stethoscope. It was a simple wooden tube allowing physicians to hear and diagnose diseases of the thorax. The ophthalmoscope was also first used during that century. Some other early technology was an electrotherapy machine used to give patients brief electrical current. An offspring of electroconvulsive therapy (ECT) was invented in 1930 and is still used today for a narrow range of problems. X-rays were discovered in 1895 and played a big part in the treatment of soldiers (doughboys) during WWI. For the first time, doctors did not need to do an exploratory surgery to see inside the body. Cancer was treated using X-ray radiation therapy. X-rays remained the number one imaging technology into the 1970s. Then came CT scans, MRIs and PET scans. This technology was greatly enhanced through some of the imaging data NASA developed regarding digital data.

Dialysis machines became available in the 1940s. Assistive devices like pacemakers and ventilators were also invented to assist with failing organs. Computers came into play in the 1950s which began the era of continuous monitoring of hospitalized patients.

With the insertion of machines and technology into a physician's practice of medicine came also medical ethical issues. Some early physicians viewed medical devices not with an embrace but with an eye of suspicion. They felt replaced by the new technology. The advent of ultrasound showed anomalies in utero. Parents were given options and information about termination.

In this century, technology exploded. Cancer care has become personalized by patient-specific cancer treatments based on DNA testing. Nutrigenomics is a new field combining genetics and nutrition. It can allow your DNA to be mapped to determine valuable information. That data will help us guide each individual through a detailed path toward a long, healthy life.

My own patients wear Fitbits and count their steps, monitor their heart rate and their sleeping pattern. Last week, one of my patients came in with an EKG she obtained on herself from one of her own personal devices. 3D printers have the capability of making a personalized cast for your orthopedic patients.

I cannot predict what new fantastic discoveries will come next year or the next decade but I know that we will all be using them. I also know that this year's students, interns and residents are coming up with ideas and inventions as we speak to make it happen.

Respectfully,
Joan M. Grzybowski, DO

POMA POLICY POINTS

Andy Sandusky

POMA Advocacy Team — Busy on All Fronts

Andy Sandusky
POMA EVP Public Policy and Association Affairs

If you have not visited the Advocacy section of POMA's website, you are missing out! The advocacy team has revamped the site to keep POMA members informed of our work. Additions include a robust tracking and reporting section, as well as a complete listing of POMA's positions, letters and testimonials. In addition, the POMA advocacy team is sharing our activity on the various social media platforms in real-time, as it occurs, on your behalf.

POMA has also requested support from its members via an action alert sent in February on the venue issue, which is described in more detail later in this piece. The advocacy team was ecstatic at the response level of so many DOs willing to get involved and have their voice be heard by the Supreme Court. These call-to-action efforts will be increasing as we get further into the year and more issues begin to develop. POMA is also bolstered by its adoption of a software program called VoterVoice. This program will accelerate POMA's ability to work with its grassroots like never before.

VoterVoice will allow POMA members to simply plug in their address and the names and contact information of their respective state representative and senator will appear. POMA will have letters already drafted and ready to send, with the added ability to edit. Hitting send is the last step and an email goes straight to your state elected officials respectively. POMA is doing its best to ensure that you have the most up-to-date information and the easiest way possible to have your voice heard in state government.

The test case for POMA's revamped communication with its members on advocacy came with the issue of the Supreme Court's Civil Procedural Rules Committee announcing its intent to change the venue rule. Under the current venue rule, in a medical liability case, a plaintiff can only file a lawsuit in the county the alleged breach occurred. The proposed rule change would eliminate this carve-out and permit plaintiffs to use any connection possible to file the suit in a county known for higher jury awards.

No one needs to tell those POMA members who were around and experienced the early 2000's the treacherous terrain of the last medical liability crisis. Or, how bad it can get when the Courts or Legislature start tinkering with the reforms that were put into place at that time. This same experience was stated on the floor of the Senate by many Senators who were in office at the time. The collective message: no one wants to go back and revisit a time where medical professional liability was either not available, or priced so high, physicians couldn't afford it.

The healthcare community now has a reprieve from action being taken by the Supreme Court because it has sent word to the legislative leaders it won't take action until a report is completed by the Legislative Budget and Finance Committee. The report is due sometime late this year or early next. A battle has been won in that the Supreme Court won't act until it receives some research and information on what could result from the venue rule change as proposed. But the war is still in effect and POMA members will need to get involved again when the time comes…and it will come.

Finally, POMA is looking for key contacts in each of the 203 House members and 50 Senators districts who know and have a connection with their elected official. Do you work with a legislator's spouse, went to school with them, belong to the same church, coached their kids in soccer? The connections are limitless, and POMA would like to know of these relationships so you can serve as a key contact with your legislator. Legislators by far, vote on issues by receiving information from members of their communities who they know, respect and trust. Given a DO's place in his or her community, it is a great opportunity for POMA to build its grassroots network. Please contact Andy Sandusky at *asandusky@poma.org* or 717.727.3668 to share your experiences with your elected official and to learn more about becoming a POMA key contact.

LECOM DEAN'S CORNER

Lake Erie College of Osteopathic Medicine

The American Opioid Epidemic — LECOM Joins the Fight

Silvia M. Ferretti, DO
LECOM Provost,
Vice President and
Dean of Academic Affairs

The American Opioid Epidemic is a pervasive scourge, now considered to be the deadliest drug addiction crisis in the history of this nation.

Ever in the vanguard and prepared to address one of the most pivotal issues in a generation, the Lake Erie College of Osteopathic Medicine (LECOM) is aggressively challenging the epidemic of opioid misuse.

LECOM researchers are steeped in a profoundly scientific approach to advancing investigations into the genesis of opioid abuse and practical solutions to combat it. LECOM faculty are committed to education and to clinical care, thus ensuring a soundly honed knowledge base. Moreover, the influence of the vast LECOM Health nexus upon health care extends into each corner of the nation where LECOM campuses and alumni are located.

Phase One — Planning for an Opioid Response

More than a year ago, LECOM identified a need that could be readily addressed and put into motion a LECOM Opioid Response Task Force to develop an interprofessional curriculum delivered to LECOM students across all disciplines and to develop the same type of program for healthcare professionals through Continuing Medical Education (CME).

The curriculum addresses that which constitutes Substance Use Disorder (SUD), the way in which it is treated, and the way in which it can be prevented.

Eschewing the teachings found in medical articles from decades past — those that called for physicians to prescribe more pain medications — the LECOM Opioid Response Task Force, under the leadership of Jonathon Coffman, PhD, was organized to design and to implement the new curriculum.

The Task Force devised an interprofessional membership that includes staff and faculty from osteopathic medicine, pharmacy, dental, law, law enforcement, and behavioral health.

Phase Two — Infusing the Opioid Response into the Curriculum

With federal funding in place to assist opioid-related programs, Dr. Coffman further developed the new curriculum, using resources to train physicians to better understand SUD and to treat patients with pain medication.

The Drug Addiction Treatment Act of 2000 (DATA 2000) expands the clinical context of medication-assisted opioid dependency treatment. Qualified physicians are permitted to dispense or to prescribe specifically approved medications that have a lower risk for abuse in settings other than an Opioid Treatment Program (OTP).

In order to prescribe or to dispense such medications, physicians must qualify for a physician waiver, which includes completing eight hours of required training and applying for a waiver. Dr. Coffman recognized this program as a fundamental training platform that can be included in the LECOM student's pre-clinical training. Thus, each LECOM graduate will be pre-qualified for the waiver and be better prepared to battle the scourge.

Dr. Coffman applied to the Substance Abuse and Mental Health Services Administration (SAMHSA) for a grant to offset the cost of developing the curriculum and for managing the LECOM Medication-Assisted Opioid Dependency Treatment Training. SAMHSA approved nearly $450,000 to develop and operate the LECOM training program over the next three years.

Through the diligent effort and dedication of Dr. Coffman, the first objective — that of establishing a LECOM training program for physicians to obtain a DATA waiver — has been achieved, thereby increasing the number of physicians prescribing Medication-Assisted Treatment (MAT) for SUD.

The second objective in the implementation of the curriculum is to increase the number of Buprenorphine prescribers in Pennsylvania and in Florida by requiring all LECOM medical

(continued on page 22)

PCOM DEAN'S CORNER

Philadelphia College of Osteopathic Medicine

Kenneth J. Veit, DO
PCOM Provost, Senior Vice President for Academic Affairs and Dean

For many years, the growing consensus in the healthcare field is that effective primary care must be at the heart of improving the health of individuals, and the population overall. A study last month in *JAMA Internal Medicine* found that those with primary care took part in more "high-value" services like cancer screenings, preventive testing and diabetes care. That same group reported better healthcare access and experience overall.

More and more, we are seeing the value and benefits of effective primary care. So why is the current payer system set up in a way that puts undue burdens and pressure on primary care physicians which ultimately threaten their effectiveness?

Most insurance companies set up their physician reimbursement schedules to mirror those set by the Centers for Medicare and Medicaid Services (CMS). These schedules largely undervalue the work done by primary care physicians, who may need to spend a little more time with a patient to truly understand his or her issue. In fact, this is a core tenet of osteopathic medicine — seeing beyond a patient's ailment and considering the effects of all aspects of their lives on their health and well-being.

Some integrated delivery systems have set up primary care to be a loss-leader for more referrals to more expensive specialty-care fields, and as a result, has made primary care a kind of "dumping ground" for bureaucracy. Primary care physicians are often forced to spend their time on paperwork and administrative duties, rather than on patient care.

Further, the healthcare field is transitioning towards a value-based approach to reimbursement. That is, physicians are paid based on the health outcomes of their patients. This approach, while good on paper, falls unduly on the backs of primary care physicians.

It also has the unintended side effect of some physicians deciding to jettison non-compliant patients; why would a doctor continue to see a patient who isn't doing what he or she is supposed to, when his or her compliance affects that doctor's ability to be paid?

In the *JAMA Internal Medicine* study, the authors call for policy-makers and health system leaders seeking to increase value should consider increasing investments in primary care. To that end, the healthcare industry could one day find itself in more of a single-payer system.

That term can sound an alarm for some in the industry, but if we truly want primary care to thrive and be the center of effective patient care, it may be a better option. It might allow more funds to be allocated to primary care so that physicians could spend more time with their patients and less time on multiple, third-party paperwork.

Would this require a reallocation of funds? Yes, and I know that will annoy some reading these words, but consider this: the traditional wisdom for paying more for specialty procedures was perhaps to account for the extra years of training. Now, technology is beginning to disrupt the healthcare industry in ways we haven't seen previously and some of those procedures, once so intricate and complicated, are becoming less so through the use of robotics and other emerging technologies.

A current favorite phrase in healthcare is "team-based approach to patient care." If we are truly working toward this goal — if our purpose is truly to improve the health and well-being of Americans — this means that all physicians and healthcare professionals must shoulder some of the burden of ensuring that patients meet the health outcomes we need them to.

I recently heard healthcare costs referred to as the "tapeworm of the U.S. economy." The current system is unsustainable. The future will require a realignment of our healthcare delivery system and how we pay for those services. Primary care must be in the vanguard of this realignment.

A STUDENT'S VOICE — PCOM

Amy Brady, OMS-II and Ashley Pinckney, OMS-II

Amy Brady
PCOM OMS-II

Ashley Pinckney
PCOM OMS-II

There are a number of chronic diseases that poorly impact our country's people and the cost of healthcare, including heart disease, diabetes and cancer. One common chronic illness that tends to be overlooked in terms of importance is mental illness. Perhaps mental illness takes a back seat because people do not understand its basis. Often, mental illness is considered to be "invisible", causing many people to underestimate its impacts if they do not see the blatant effects on the sufferer. Unlike casts seen with a broken bone or an actively bleeding wound, mental illness is not an obvious ailment. Furthermore, its etiology varies from person to person, giving each patient a sense of loneliness in their suffering. While patients may feel they are the only one dealing with their chronic disease, mental illness is widespread with more than 50% of the US population diagnosed with a mental illness or disorder at some point in their lifetime, according to the CDC.[1] Furthermore, mood disorders, which include major depression and bipolar disorder, are the third most common cause of hospitalization in the United States for those ages 18 to 44. Serious mental illness leads to billions of dollars in lost earnings each year. Moreover, many patients suffering from a mental disorder simultaneously suffer from other chronic diseases such as cancer or diabetes, and certain mental illnesses, such as depression, increases the risk for another chronic disease. Because mental illness has a large impact on the population, we must come up with some solutions to solve this problem.

Like many other chronic diseases, mental illness is not limited to a certain population. Instead, it can affect anyone regardless of background, age or socioeconomic status. Physicians are not immune to the effects of mental health. The associated stigma stops many physicians from seeking help for fear it would negatively impact their careers. To that end, it is no secret that physicians have a higher suicide completion rate than that of the general population.[2] The cost of not addressing these harrowing facts about mental illness among physicians comes at the cost of our patients.

The first step in finding solutions to this chronic health care issue is to accept that mental disorders are highly prevalent in the US. By recognizing this issue, we can try to provide more resources to support those with mental illness. There is an increased need for inpatient facilities, especially those that provide help for patients who are not simply at risk of harming themselves or others. An increase in the number of facilities providing support to the chronic mentally ill patient may prevent the use of jail as the interim solution. Not only do the number of facilities need to increase, but there also needs to be an increase in mental health training for primary care physicians. Often times, patients with a mental disorder present to their primary care physician, who does not necessarily have a lot of training in diagnosing and treating mental illness. With more training in overseeing care for those with mental illness, more patients can be properly diagnosed and receive the right treatment for their disorder. As a means of preventing mental illness, we should provide early therapeutic interventions and programs that target people affected by stressful and/or traumatic events, including both children and adults. In addition, we should promote a culture that recognizes mental illness as something that is common and treatable. If our culture is as accepting of mental illness as it is of other more "concrete" chronic diseases, then more patients will be comfortable seeking care, and we can decrease the poor impact that mental illness plays in the economy and the costs of healthcare.

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Reflection on Medicine
Robotic Surgery — The Future is Here

by Olivia Barclay

You can't discuss the future of medicine without discussing the technology that is now used and will continue to be introduced. From digital record keeping, to advances in medicines, to changes in medical tools, the healthcare industry is completely different than even 10 to 20 years ago. Joseph Ridilla, DO, a general surgeon at Wilkes-Barre (Pa.) General Hospital, utilizes tools every day that used to be thought of as simply science fiction. Specializing in micro-invasive, laparoscopic, and robotic surgeries, he recently completed his 1,000th robotic surgery.

Just 30 years ago, robots became a reality in the world of surgery. In 1990 the AESOP robot system became the first system approved by the Food and Drug Administration (FDA) for its endoscopic surgical procedure. In 2000, the da Vinci Surgery System broke new ground by becoming the first robotic surgery system approved by the FDA for general laparoscopic surgery. Since this time two of the greatest advancements in the robotic surgery have been the miniaturization of instruments and visualization of 3D laparoscopic surgery.

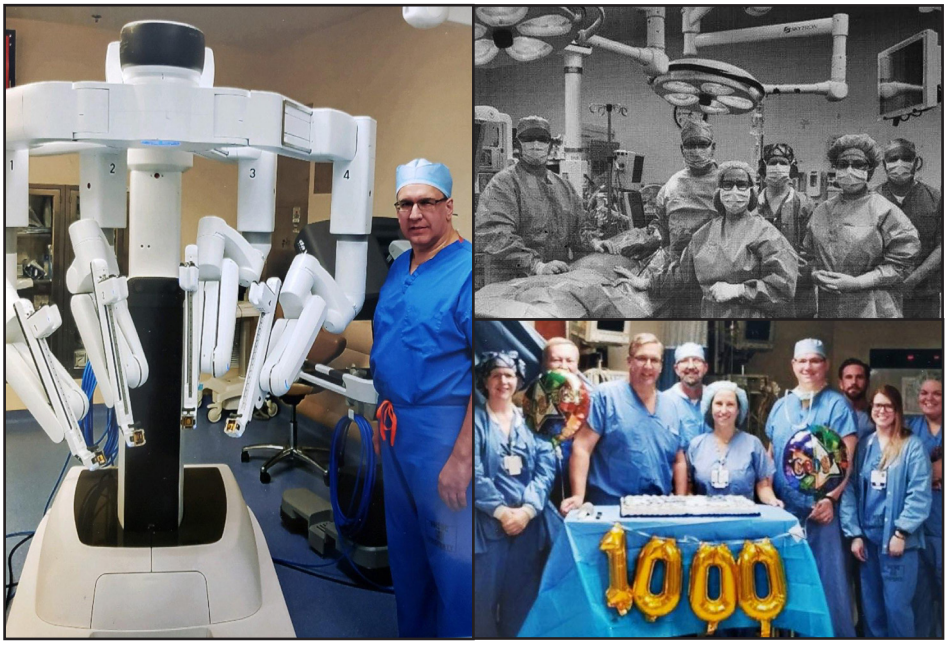
"Robotics have provided a huge step in the advancement of various surgeries. The visualization a surgeon has, and the control of your instruments allows for significantly higher precision." In addition to the benefits of greater visualization and control, Dr. Ridilla noted the additional benefit of the ability to be wristed. Laparoscopic surgery requires the surgeon to operate while standing, using hand-held, long-shafted instruments, which have no wrists. In contrast, the newer robotic surgery tools allow the surgeon to operate from a seated position at a console, with eyes and hands positioned in line with the instruments and using controls to move the instruments and camera.

"I no longer perform laparoscopic hernia surgery. It is all done with robotics. This allows me to suture mesh rather than tacking it, which offers a quicker recovery that doesn't involve metal tacks. In terms of other common surgeries, there may be instances where a laparoscopic surgery has the advantage, such as a gallbladder surgery for a smaller person but it will always be based on each individual case," says Dr. Ridilla.

When discussing the future of robotics and other technology in surgery, one downside is that technology, especially new technology, is expensive. There are going to be developments and advantages that we won't be able to see in the mainstream because of expense. But science doesn't stop. As research and advances are made, we will see a higher range of technology that can be used to continue offering better precision and results.

The future of robotics in surgery continues to look bright. But for those considering this direction for their career, Dr. Ridilla says it isn't easy.

"Be persistent. Don't get frustrated. There is a high learning curve when entering the field of robotic surgery. Before I moved to this system, I performed at least 10,000 laparoscopic surgeries and that definitely aided in the transition but even if you have that experience there is still going to be a learning curve."



Op-Ed
Concerns Regarding Legalization of Recreational Marijuana

by Donald J. Sesso, DO

After having spent 35 years as a critical care/pulmonary specialist, I am a detox/internal medicine clinician at Eagleville Hospital for the last 9 years. I am writing this update and review article about marijuana because I fear the potential to be allowed for recreational use. I believe that would be a mistake with serious public health consequences.

I will not review legal medical marijuana use, as it is a more complex issue and with PA Act 16, is has different benefit/risk values and monitoring.

Marijuana is an herb and has been harvested for a few thousand years. Use of marijuana became illegal in the USA in 1937.

The major psychological and physiologic effects of marijuana are mediated by the interaction of THC with specific cannabinoid (CBI) receptors on specific nerve cells in the brain. Other cannabinoids found in marijuana are cannabidiol and cannabinol, but they do not produce the "typical marijuana effects."

The initial psychologic effects of marijuana intoxication include relaxation, slowing of time perception, increase appetite, and altered sensory perception. There is commonly impaired concentration, anterograde amnesia, and motor incoordination. Higher doses frequently cause hypervigilance, anxiety, paranoia and panic.

The acute physiologic effects of oral or smoked marijuana intoxication include red eye, tachycardia, hypotension, dry mouth and poor motor coordination.

Marijuana withdrawal symptoms are reported in one-third of heavy users, at about 5 grams per day. Symptoms of irritability, insomnia and depression are usually of moderate intensity and do not require hospital level of care.

The risk of marijuana-caused addiction is estimated at 10%, whereas, alcohol addiction is estimated at 20% and over 30% for nicotine. Those who have pregnancy, cardiac and behavioral issues are of even greater concern for marijuana toxicity.[1]

The evidence that marijuana being a "gateway" drug is still not settled and moot.

Clinicians should use validated screening tools such as the "Cannabis use disorder test," when caring for a marijuana user.[2,3]

Second hand inhalation negative effects are still in the process of being studied and still not finalized, but are present. There is relative agreement regarding a significant association of marijuana use with symptoms of chronic bronchitis. Bronchial mucosal biopsies revealed wide histopathologic changes in mucosa of marijuana smokers alone that were comparable with those of cigarette smokers.[4]

A World Health Orgnization report estimated the average "joint" contains 0.5 grams of cannabis and the average dose of a patient using it for medical reasons was four joints per day or 2 grams of cannabis. This equates to 20 to 50 mg per day of THC, the active molecule in marijuana. Even in medical marijuana centers a "watchful" dose is 5 grams cannabis per day and skepticism for diversion is increased. Ten mg of marijuana equals 1 mg of THC. One joint has about 300 mg of marijuana with about 30 mg of THC.[5]

Automobile driving while under the influence is a major problem. I am appalled at the large numbers of patients that I encounter who have been DUI. When patients are in a detox center they have an extra layer of confidentiality which presents reporting problems to our staff. Both PA Act 63 and federal confidentiality law 42 cfr-part 2 are in effect and are very strict and limiting for our centers.

A report in 2016 from the Insurance Institute of Highway Safety stated that three states where cannabis is legal, Colorado, Washington and Oregon had 6 percent more collision claims than neighboring states. Kevin Kelleher, a reporter from Fortune magazine reviewed this in October 2018.

This month, February 2019, Ms. Carol Henn, chairperson of the American Automotive Association (AAA) sent all members a newsletter

(continued on page 25)

Guest Column
ISMIE's View on Venue Shopping

by Paul H. DeHaan, MD

As a medical professional liability insurer with more than 40 years of physician-led experience in some of the country's toughest legal environments, ISMIE considers it our job to keep a weather eye on potential threats to the practice of medicine. ISMIE is not just another insurance company — we have a long history of advocacy on behalf of our policyholders.

And today, we have a very specific forecast for Pennsylvania doctors: get ready, because there's a storm brewing.

The problem is venue shopping, which means a choice by someone filing a lawsuit to do so in the particular court they feel will give them the most favorable treatment. In every state, there are jurisdictions seen as particularly friendly to plaintiffs.

In Pennsylvania, the congeniality award for medical liability lawsuits goes to the backlogged courtrooms of Allegheny and Philadelphia counties, generally seen as producing higher awards on average. If a new proposal moves forward, you might see more lawsuits popping up in these specific jurisdictions, regardless of where the incident that led to the claim may have happened.

There is something you can do about this. But first, some history.

Venue shopping was allowed in Pennsylvania until 2003, when a record number of medical liability cases led to reforms dictating that medical liability lawsuits could be filed only in the county where the alleged incident took place.

Late last year, the Pennsylvania Supreme Court announced a proposal to revisit Rule 1006. The Pennsylvania Osteopathic Medical Association (POMA) and the Pennsylvania Medical Society (PAMED) issued a quick response — that moving the clock back to those pre-reform days will certainly mean higher practice costs, higher patient costs and soon, more Pennsylvania physicians moving across state lines.

Just days ago, the Pennsylvania Supreme Court moved to delay consideration until the Pennsylvania General Assembly's Legislative Budget and Finance Committee could review its potential impact. The committee's report is expected in early 2020.

That buys a little time. But Pennsylvania's medical professionals really don't have much time to waste.

Explains POMA President Joan Grzybowski, DO: "Pennsylvania is in constant competition to recruit and retain the best and the brightest physicians. This (proposed) rule reversal sends the wrong message to physicians choosing to reside in Pennsylvania and treat Commonwealth patients — and may drive them elsewhere."

At ISMIE, we're very proud to be offering our protection in Pennsylvania, one of the most diverse, dynamic and innovative healthcare markets in the country.

It's also why we consider it our responsibility to report on all industry, judicial and legislative developments that affect our insureds, no matter where they practice. Policyholders will find updates as they happen in *ISMIE News*, our twice-monthly e-newsletter, and on our social media. It's important to know that ISMIE also submitted its own set of comments to the Supreme Court of Pennsylvania's Civil Procedural Rules Committee, opposing the proposed changes to Rule 1006.

We'll continue to watch. And in the meantime, we urge all Pennsylvania physicians to continue to make your voices heard on this important issue. Start by visiting *www.poma.org*.

Remember, *your* practice may be at stake.

Paul H. DeHaan, MD, is the chairman of ISMIE and an orthopaedic surgeon who has practiced in McHenry, Illinois, for 30 years. To learn more about ISMIE's products, services and advocacy, we invite you to review our annual report at *www.ismie.com*. You also can discover how our company benefits POMA physician members at our POMA-ISMIE Affinity Program website *www.ismie.com/POMA*.

Medical Update

Factors That Increase the Likelihood of a Positive Chest X-Ray Result in Patients Presenting to the Emergency Department for Acute Asthma Exacerbation

by Rossi Brown, DO

Abstract

Introduction: Chest X-rays are frequently ordered in the evaluation of acute asthma exacerbation in the emergency department (ED). These X-rays are ordered to rule out complications and alternative diagnoses that can affect management. However, many times they don't change management but instead use time, resources, money, and expose patients to unnecessary radiation. Our study looks at children and younger adults with acute asthma exacerbation in the ED and evaluates the percentage receiving chest X-rays, percentage of positive chest X-rays (X-rays that change management in the ED), and factors predictive of positive chest X-rays.

Methods: A cross-sectional study was done looking at patients aged 2-54 years old with acute asthma exacerbation presenting to a community ED from January-June 2017. Factors affecting positive chest X-ray results that were under investigation in this study included fever 38-39 C either at home or in the ED, fever > 39 C at home or in the ED, cough productive of 'green sputum,' chest pain that is not described as 'tightness,' focal lung findings, severe presentation (hypoxia with oxygen saturation < 90 percent on room air; respiratory rate > 30 in adults and children 6 years old and older, rate > 36 in ages 4-5, and rate > 40 in ages 2-3; breathless at rest; speaking one word at a time; accessory muscle use; tripoding; drowsy or lethargic), failure to improve with standard asthma medications (bronchodilators), and subsequent admission to the hospital. Percentage of chest X-rays obtained and percentage of positive X-rays was calculated. Statistical significance for each variable was calculated along with odds ratios and relative risks for the variables that were found to be significant.

Results: 278 subjects met criteria for inclusion in this study, and of those 192 received chest X-rays (69 percent). Of the 192 chest X-rays performed, only 15 were positive (7.8 percent). 14 X-rays found infiltrates consistent with pneumonia, and the patients were started on antibiotics. One x-ray found vascular congestion and the patient was given diuresis. Fever 38-39 C, fever > 39 C, and subsequent admission were found to have a statistically significant higher number of positive chest X-ray results ($p < 0.05$). Patients with fever 38-39 C were more than three times more likely to have a positive chest X-ray compared to those who did not have a temperature in that range. If someone had a fever > 39 C they were more than 14 times more likely to have a positive result. Patients admitted were almost three times more likely to have a positive result.

Conclusions: We recommended that chest X-rays be selectively ordered in patients with acute asthma exacerbation in the ED. One should consider a chest X-ray if the patient has had fevers at home or in the ED, or if the patient is being admitted.

Introduction

Chest X-rays are frequently ordered in the evaluation of acute asthma exacerbation in the emergency department (ED). These chest X-rays are ordered to rule out things like pneumonia, pneumothorax, pneumomediastinum and pulmonary edema, which can change acute management in the ED. However, the majority of the time, they are read as normal, or there are incidental findings that don't change manage-

ment in the ED. Chest X-rays expose patients to radiation, can increase length of stay in the ED, utilize resources, and cost money. There have been studies looking at factors that predict positive chest X-ray outcomes. Many of these studies look at pediatrics and exclude adults, or they look at the wheezing patient in general and not just asthma exacerbations, or they look at inpatients. There are other studies that look at asthma along with COPD. Some studies look at asthma and include extremes of age.

Our study focuses on children and younger adults with acute asthma exacerbation in the ED. We look at the percentage of these patients that received a chest X-ray, the percentage of positive chest X-ray results, and the factors that could be predictive of a positive chest X-ray result.

Methods

This was a cross-sectional study looking at patients aged 2-54 years old with acute asthma exacerbation presenting to a community ED from January-June 2017. A list of potential subjects was obtained by pulling up all discharge/admission diagnoses starting with the CPT code J45, which includes all asthma diagnoses. Charts were reviewed and patients were excluded if they did not actually have an asthma exacerbation diagnosis, such as if the diagnosis included asthma, but they were not having exacerbation and was actually in the ED for a medication refill. Patients were also excluded if they were under 2 or over 54. Patients under 2 frequently have wheezing from viral illnesses rather than asthma, and patients over 54 are more likely to have confounding comorbidities in additional to the confounder of older age predisposing a person to illness. Patients were included if they were aged 2-54 years old and had acute asthma exacerbation.

Charts were reviewed for each patient that met inclusion criteria. Factors affecting positive chest X-ray results that were under investigation in this study included fever 38-39 C either at home or in the ED, fever > 39 C at home or in the ED, cough productive of 'green sputum,' chest pain not described as 'tightness', focal lung findings, severe presentation (hypoxia with oxygen saturation < 90 percent on room air; respiratory rate > 30 in adults and children 6 years old and older, rate > 36 in ages 4-5, and rate > 40 in ages 2-3; breathless at rest; speaking one word at a time; accessory muscle use; tripoding; drowsy or lethargic), failure to improve with standard asthma medications (bronchodilators), and subsequent admission to the hospital. For each of these variables, it was indicated whether the patient had that particular variable or not. Next the chart was reviewed to see if a chest X-ray was done, and if so, was it positive. If it was positive, a comment was made about what made it positive and how it changed acute management in the ED.

After data was collected from the charts of all patients that met inclusion criteria, the percentage of chest X-rays obtained was calculated. Next was the percentage of positive chest X-ray results. For each variable listed above, percentage of positive X-ray results was compared to negative X-ray results to see if there was a statistically significant difference. For the variables with statistically significant outcomes an odds ratio and relative risk was then calculated.

Results

Using the above methods, 310 charts were identified as potential subjects for the study. 32 were excluded based on the above inclusion and exclusion criteria. Most were excluded based on age outside the range used in this study. A few were excluded because they were not asthma exacerbation diagnoses. This left 278 subjects to be included in the study.

Of the 278 subjects, 192 received chest X-rays (69 percent). Of the 192 chest X-rays performed, only 15 were positive (7.8 percent). 14 X-rays found infiltrates consistent with pneumonia, and the patients were started on antibiotics. 1 X-ray found vascular congestion and the patient was given diuresis.

When looking at variables and chest X-ray outcomes, fever 38-39 C, fever > 39 C, and subsequent admission were found to have a statistically significant higher number of positive chest X-ray results ($p < 0.05$) (Table 1). Fever 38-39 C had an odds ratio of 4.59 (95 percent CI 1.28-16.44) and admission to the hospital had a 3.40 odds ratio (95 percent CI 1.12-10.29). An odds ratio could not be calculated for fever > 39 C because there were no negative chest X-rays. All patients with a fever > 39 C had a positive chest X-ray. Patients with fever 38-39 C were more than three times more likely to have a

	Positive Results (n=15)		Negative Results (n=177)			
Variables	Number	Percent	Number	Percent	Difference between the Two Groups	p-Value
Fever 38 - 39 c	4	26.67%	13	7.34%	19.32%	0.0315
Fever > 39 c	2	13.33%	0	0.00%	13.33%	0.0057
Cough green sputum	0	0.00%	7	3.95%	-3.95%	1.0000
Chest pain	3	20.00%	29	16.38%	3.62%	0.7195
Focal lung findings	3	20.00%	38	21.47%	-1.47%	1.0000
Severe presentation	4	26.67%	20	11.30%	15.37%	0.0993
Failure to improve with meds	3	20.00%	30	16.95%	3.05%	0.7256
Admitted to hospital	6	40.00%	29	16.38%	23.62%	0.0345

positive chest X-ray compared to those who did not have a temperature in that range (relative risk of 3.74). If someone had a fever > 39 C they were more than 14 times more likely to have a positive result compared to someone with a fever less than 39 C (relative risk of 14.62). Patients admitted were almost three times more likely to have a positive result compared to those who were discharged (relative risk of 2.99).

Discussion

Our study found that a large percentage of acute asthma exacerbation patients in the ED are receiving chest X-rays, while only a small percentage are positive, defined earlier as a finding that would change acute management in the ED. It showed that fever at home or in the ED of either 38-39 C or above 39 C was an important risk factor for a positive chest X-ray result. It also showed that admission to the hospital was another strong predictor of a positive X-ray. Surprisingly, severe presentation and focal lung findings were not good predictors of a positive X-ray. Additionally, coughing green sputum, chest pain, and failure to improve with meds were not good predictors.

There is literature on chest X-ray usage for asthma exacerbations in the ED, but as noted earlier, many of these studies look at pediatrics and exclude adults, look at the wheezing patient in general and not just asthma exacerbations, look at inpatients rather than ED patients, look at asthma and COPD patients together, or look at a population including the extremes of age.

A study from 1981 looking at 90 chest X-ray results in acute asthma exacerbation in the ED found that 55 percent of the X-rays were read as normal, 44 percent were not normal but did not change management (such as hyperinflation and chronic interstitial changes), and 1 percent was read as abnormal and did change management (infiltrate requiring antibiotics).[1,2] Another study in 1982 that looked at ED chest X-rays in asthma exacerbations found that in the 997 X-rays reviewed, 2.2 percent of the X-rays in adults and 13 percent in children were read as abnormal (such as infiltrates, pneumothorax, and pneumomediastinum).[2,3] Authors from the 1981 study recommend limiting chest X-rays in asthma exacerbation patients to those where there was clinical concern for pneumonia, concern for a complication of asthma, or concern for an etiology other than asthma exacerbation to explain symptoms.[1,2] Authors from the 1982 study recommended chest X-ray usage in adults if there was no response to bronchodilators or if they were being admitted, and recommended chest X-ray in children if there were rales or rhonchi.[2,3] A more recent article from 2005 recommended chest X-rays be obtained in asthma exacerbation patients when there was presence of fever that could not be attributed to a viral illness, presence of significant chest pain, or if there is was no improvement with bronchodilators.[4-6]

Evaluating the research on pediatrics specifically, there was a study of asthmatic children in the ED in 1982 which showed that of the 391 patients that had X-rays, positive chest X-rays were more likely in children under 5 and in those with rales on lung exam. Fever, severity of asthma exacerbation, duration of illness, and subsequent hospitalization were not strong predictors.[7-9] In 1983 a study looked at 371 children over 1 year old who were presenting to the ED for first time wheezing, and they found that only 5.7 percent of these children had positive chest X-ray findings. The authors of this paper included not only pneumomediastinum and pneumonia as positive, but also atelectasis, which does not necessarily change ED management. They found that factors increasing likelihood of positive X-ray results included respiratory rate > 60, heart rate >160, and focal lung findings either before or after treatments.[5,6,10]

One study looking at an urban children's ED in 1994 found that of 298 children with first time wheezing episodes, 41percent were X-rayed. Of those X-rays, 24 percent were considered positive because they were deemed to change management in the ED. Factors associated with positive chest X-rays included focal lung findings, elevated temperature (37.9 C and above), and absence of a family history of asthma. It should be noted that this paper included all wheezing patients, not just asthmatic patients.[2,11,12] Another study that looked at wheezing patients, not just asthmatics, examined wheezing infants 18 months or younger, and found that focal infiltrate on chest X-ray was associated with children who were grunting and those with oxygen saturation 93 percent or less on room air.[8,9,13] Another study looking at children 18 months and younger with wheezing, found that focal infiltrates on chest X-ray was more likely when there was history of fever, current fever of at least 38.4 C, or rales on lung exam. Again, this study included all wheezers.[8,9,14] A study looking at 526 patients ≤ 21 years old with wheezing of various etiologies in the ED, found that a pneumonia diagnosis by chest X-ray was more likely in those with current fever of at least 38 C, history of fever at home, history of abdominal pain, and oxygen saturation less than 92 percent.[14]

Looking at the research on admitted patients with asthma exacerbation, a paper in 1991 found that 20 out of 54 (34 percent) admitted patients with admission chest X-rays had positive chest X-ray results. The authors proposed that all admitted patients receive admission chest X-rays because of these results. It should be noted though that the authors considered positive to include not only focal opacities, increased interstitial markings, pulmonary vascular congestion, and pneumothorax, but also cardiomegaly and pulmonary nodule. The latter two do not necessarily change immediate management from the ED.[2,12,15] A more recent study from 2014 showed that in 180 inpatient pediatric patients with acute asthma exacerbation, only 10 percent of ordered chest X-rays actually had findings that changed management (most involved adding antibiotics and there were also three cases of pneumothorax).[16]

A study looking at 125 patients admitted with bronchospasm, which included asthma but also COPD and other pulmonary conditions involving bronchospasm, came up with criteria that deemed a patient to be either "complicated" or "uncomplicated" and then they looked at admission chest X-ray results. Complicated was defined as having recent fever or chills, IV drug abuse history, immunosuppression, cancer, cardiac disease, pulmonary diseases including COPD and granulomatous disease, and prior thoracic surgery. None of the chest X-rays in the uncomplicated group had findings that affected management. 13 of 44 (30 percent) complicated patients had X-rays that were deemed to change management, including infiltrates requiring antibiotics, congestive heart failure requiring diuresis, one patient that had a nodular density which eventually required biopsy (although this would not change the ED management of the patient), and two patients had an 'absence of findings' which was deemed to affect management as antibiotics were not given. The finding of a nodular density would not affect immediate ED management, and the patients with an absence of findings could reasonably be considered negative. The mean age of the uncomplicated group was 49 with age range of 18-87, and the complicated group was older with a mean age of 62 with age range of 26-99.[2,17]

A few years later a similar study of 128 patients looked at obstructive airway disease admissions (both asthma and COPD) and admission chest X-ray results. A patient was deemed "complicated" if they had one or more of the following criteria: temperature > 37.8 C or had history of COPD, other pulmonary disease (tuberculosis or sarcoidosis), heart disease, prior thoracic surgery, seizure disorder, immunosuppressed (excluding diabetes mellitus and steroid use), or history of IV drug use. The complicated obstructive airway disease patients who were admitted all received admission chest X-rays. 31 percent were found to be positive by changing management, namely infiltrates receiving antibiotics, congestive heart failure receiving diuretics, and lobar collapse of an intubated patient requiring adjustment of tube placement. Only one of the 44 uncomplicated admissions (patients meeting none of the "complicated" criteria) had a chest X-ray that affected management. This X-ray was read as congestive heart failure and the patient was given diuresis, but subsequently the X-ray was over-read later as normal. This study implicates fever, IV drug use, and comorbidities as being related to positive chest X-ray results. The mean age was 50 with a range of 18 years old to 93 years old.[2,18]

A study published in 2012 looked at outcomes based on age for asthma patients presenting to the ED. Age groups were divided into children age < 18, younger adults ages 18-54, and older adults ages 55 and up. They found that older adults had higher mortality, higher rates of serious asthma-related events, were more likely to be hospitalized, and had longer lengths of stay in the hospital.[19] Based on this information, one can postulate that chest X-rays in older patients are more likely to be positive, and studies that include older adults can skew results. The above two studies not only included COPD patients, which the authors considered as a criteria for a complicated airway disease case, but also they included older patients. A study focusing on younger adults and children, and looking at asthma exacerbations by itself without COPD patients, would get results that are not confounded by the age or the comorbidity of COPD.

As it can be seen, prior literature of chest X-ray usage in acute asthma exacerbation in the ED is limited. Studies of wheezing patients and inpatient studies provide some useful information, but are harder to extrapolate to asthma patients specifically and to the ED setting. Additionally, studies that combine COPD and asthma patient together can skew data. Studies including older adults (ages 55 and up) can also skew results. Our study looked at children and younger adults and focused on only those with acute asthma exacerbation diagnosis in the ED. Studies like this one can help with identifying asthma patients that would benefit from a chest X-ray and can help reduce the overall number of X-rays ordered.

(continued on page 24)

Medical Update
How Can Residents Provide a Positive Learning Experience for Interns and Students?

by Sanjiv Gollakota, DO

Introduction

Teaching residents and interns is an important step towards developing full-fledged physicians. Physicians roles are not just about treatment, but also about educating others. Indeed, teaching actually leads to improved health outcomes.[1] However, very few residents are prepared to teach once they begin residency. This is primarily because quality formal teaching programs designed to provide curricula to improve teaching skills in medical students are not well developed.[2] Thus, effective teaching skills are not provided to graduating medical students, yet clinical instruction is essential to developing competent physicians because they simply cannot receive adequate instruction from examinations nor textbook materials.[3] Clinical instruction therefore is dependent heavily on bedside knowledge gained through experience and learning from other experienced practitioners.[3]

Indeed, in a study of internal medicine (IM) residents at a Canadian medical school, surveys indicated residents felt inadequately prepared due to a lack of effective teaching within their organization with regards to cardiac life support protocols and procedures. In much of residency, procedures and courses are an assumed part of the repertoire for training future residents. Yet many IM residents at the Canadian hospital indicated that ACLS course training was not considered an adequate part of training.[4] Furthermore, residents indicated they received infrequent staff supervision at the residency program. Indeed, evidence suggested that ER residents were as effective supervisors for leading cardiac arrest teams as attending hospitalists. This suggests that good training for residents is dependent on other residents' ability to teach for effective learning.[4]

Residents are an important component of teaching of junior residents and students. They are an integral component of how third year students learn medicine. In fact, the Graduate Medical Education Core Curriculum of the Association of American Medical Colleges indicates that residents are one of the key sources of knowledge for students undergoing their clerkships.[2] Furthermore, some studies show that 20 percent of a resident's time is spent on teaching, greater than any other teaching faculty.[5] In light of this importance, it is clear that residency programs should utilize teaching tools to help residents. A survey by the Accreditation Council for Graduate Medical Education of 1,805 deans and directors of graduate medical education was conducted in 2000. The results indicated that more than half offered some formal instruction in teaching skills for an average of 11 hours of instruction during the entire residency.[2] Finally, 75 percent of the instructors indicated that residents would benefit from more instruction than was provided. This snapshot indicates that not only is teaching how to teach valuable but greater instruction would help residents and is needed.

Even though quality teaching initiatives at the student level do not exist, the value of teaching becomes paramount once they reach residency. Residents now must be able to provide effective teaching experiences to help interns and guide students with the daily tasks of managing and caring for patients at the hospital level.[6] What was once theory and textbook level discourse must now be applied, real-time, on a daily basis for patient care. This hands on approach is very dependent on the abilities of residents to teach students and interns. Indeed, prior surveys indicate that students and interns have felt residents are an important teaching resource during their first year of residency.[7] In a survey conducted by Bing-you et al, in 1992, students indicated that interns and residents contributed to one-third of students' knowledge.[7] Research has found

that students interested in teaching other medical students are more willing and show greater improvement in teaching skills workshops and training programs. However, the actual perceptions of students and residents' abilities to teach is not well-defined.[7] Furthermore, a retrospective assessment using MEDLINE and PubMed failed to produce more recent research with regards to the issues.

What research does exist shows that residents are dependent on effective training to teach students.[8] Some studies done, including those implementing the one minute preceptor teaching plan, have shown significant improvements in residents abilities to teach students. Furthermore, data shows a relationship between improved feedback and improved teaching skills. This feedback mechanism was most effective for residents after they were taught how to teach the students and interns. Prior to the teaching intervention, residents were given poor marks for teaching abilities but after receiving the intervention, the majority of students indicated the teachers had helped them learn effectively.[8]

Without established teaching protocols available for residents, where then do they learn? Earlier studies indicate that no more than 20 hours of learning is done with an attending. The vast majority of learning is largely a part of self teaching and focusing on finding the right material to guide and teach a resident.[9] Furthermore, survey studies showed that the vast majority of interaction in residencies, such as family medicine that are outpatient based, were largely based on the interactions during the intern year. Even during this year, the learning was predominantly with other residents and interns. Thereafter, learning came to residents via self teaching instead of their preceptors indicating the importance of the intern year and learning from other residents as interns.[9]

The value of teaching by residents cannot be overstated. House staff are very important in developing the education for interns and students. Some surveys indicate a quarter of the resident's time is spent on teaching yet very few residents receive the training needed.[10] Upwards of 60 percent of residents surveyed have indicated they would appreciate more teaching and training. Many interns and students indicate an appreciation for resident teaching advocating for their value.[11] The vast majority of one particular survey found that teaching requires greater learning on the part of the residents and this was a strong motivating factor to teach others.[11]

In practice, many residencies have utilized, unofficially, residents as a valuable teaching source. While some teaching courses have been provided, residents have mostly been left to their own experiences to teach.

Hypothesis

Intern and student attitudes towards learning are dependent on their understanding of key areas to focus on teaching.

Study Design

Unfortunately, the quality of training is not limited to non-procedural fields. Cardiac arrest teams have also felt inadequate in their training in running codes at the resident level. Internal Medicine residents at one Canadian medical school felt a perceived deficit in their ability to run cardiac arrest codes.[4] While this survey found, tellingly, that residents felt inadequate, they were unable to ascertain the quality of feedback on performance due to a dearth of data.[4] Ascertaining the quality of the feedback, and developing effective feedback paradigms may be an effective way to train residents and improve teaching outcomes.[4] However, the ability of residents and interns to determine whether they are receiving feedback is an essential component for educating. Indeed, feedback is an important role for both residents and interns to utilize, to develop their teaching skills. From the survey done on running codes, the majority of residents and interns responded that performance feedback and debriefing would have been appropriate tools to train them.[4] Other studies have shown that feedback improves experience-based judgement, decision making, and performance.[4] This feedback can also improve the residents and interns abilities and confidence to teach.

As a result, it may benefit both residents and interns to ascertain both their attitudes towards teaching and what areas they wish to have greater resources and effort spent on teaching by residents.

This paper will attempt to develop a survey to assess the relationship between teaching and the area of need for both teaching and learning at a community hospital in Northwest Pennsylvania.

Methods

Participants

Participants were 80 residents and interns who are currently training residents across all residency programs at a community hospital in Northwest Pennsylvania. The residents

included those from psychiatry, internal medicine, orthopedics and family medicine. The participants had all done their intern year at a community hospital and some continued their training at the same facility while the rest were at various other sites. The experiences in terms of teaching and learning for the different residents, were, as a result, varied and allowed different opinions to be presented in the survey.

Materials

Resident and intern perceptions and experiences of learning and teaching were identified via an online survey (*www.surveymonkey.com*) which had seven open-ended questions in the form of free response answers. Participants were required to answer all seven questions.

Sample Survey

Survey for both Interns/Students and Residents to Complete:

1. Residents:

What is the most recent experience you have had teaching interns and/or students. Please give specific examples. Include the following - when you did it in terms of your training, what rotation you were on. Also include how teaching was done - was it during rounds? Was it with PowerPoint or just person-person, etc.? Who was it intended for? Why did you provide this teaching? What feedback did you receive if any? Was the feedback helpful in your opinion?

All groups:

2. On a scale of 1-10, how helpful would you say teaching by residents would be for your education?

3. How often do you receive training from residents on IM inpatient services?

4. How many times have you asked for help by a resident and received helpful feedback?

5. Please give a specific example of a time when a Resident provided you some educational feedback that you found valuable. Please describe what the instruction was about.

6. What areas do you feel your knowledge would be better improved with training by residents? Please be as detailed as possible

7. What types of knowledge would you like to teach interns or students and why?

Procedure

The survey was conducted on multiple occasions to obtain the highest response rate possible over several months. The request was sent out anonymously via the medical education department of the residency programs using the emails of the interns and residents who were currently in residency. Efforts to ensure resident privacy was protected were made. First, the survey was done via Survey Monkey via an anonymizing option. This allowed the details of the participants were removed such as IP address of the respondents. The responses were only checked once a week so that the timing of responses were not related back to the respondents. The questions and answers were anonymous so that the individual responses could not be related back to individual residents.

Results

Of the 80 participants surveyed only 11 have responded. The average rating for the quality of feedback received was 8 out of 10 on a scale of 1 to 10. Generally, the responses of the residents were positive regarding their experiences with teaching. As an example, IM inpatient service resident led education, residents indicated that they often or daily received advice or help from fellow residents. The average score out of 10 was an 8 indicating a high level of value placed on resident led education by fellow residents. Of the 11, specific educational experiences of participants in terms of receiving teaching from senior residents included surgical experiences in orthopedics, ophthalmology, central line placements, board review preparation and OMM training. All the responses have thus far been a positive experience in training from residents. Further confirming the value of resident teaching, each of the respondents indicated that their own experiences learning from residents were very useful. The training they received was face-to-face and hands-on and involved direct patient care. Some made note of the fact that as senior residents now, they are involved in more of the teaching and indicated they wanted to give back because of their own positive experiences learning from residents.

When asked about their most recent teaching experiences, residents had specific instances of positive experiences teaching interns or junior residents. Residents indicated that their value extended not just with PowerPoints or verbal 'walking rounds' but also included hands-on experiences. Examples include legal forms medical students learned regarding 302s and other legal procedures integral to the psychiatric residency, central line placements in Internal Medicine and physical examination skills. Every response included an example

of person to person formal teaching experiences as well, indicating a robust relationship between residents regarding learning.

As learners, residents indicated they received valuable feedback as well. In addition to receving feedback via rotation evaluations which are usually at the end of a rotation, residents discussed immediate feedback as well. Residents indicated immediate feedback on procedures such as "constructive criticism about my technique," "and thinking through proper testing and diagnosis" for specific diseases, as well as discussing how to manage a case in the future, and focusing on "active learning." Residents also explained specific instances when educational feedback was valuable. In surgical subspecialties, residents were helped by imaging to learn specifically about surgical technique for rotator cuff tears. Other procedure examples include ways to appropriately advance the wire into the internal jugular vein for central line placements.

Finally, when asked by residents what could be done to improve their teaching experience the discussion was varied and detailed. Residents indicated that residency specific training in how to teach fellow junior residents and students may be beneficial. Even though they mentioned the masters in medical education offered at the program, residents felt they would do better with focused training sessions as well. They also indicated that a brief overview of the way the residency programs work in a variety of disciplines might help students engage in the process better. Other improvements included discussions about how to prioritize work and tasks, multi-tasking, and teaching what details to look for with regards to patient care. Other feedback included teaching interns about how and when to consult specialties, as well as proper operating room (OR) technique for setup and application of post-operation dressings.

Conclusion

While the results are promising, further data would have helped create a more coherent picture that explained the data in a formative manner. The primary challenge with this research is the low level of responses for the survey. Multiple attempts to obtain adequate data did not result in a sample size that would have been more representative of the various ideas and thoughts of the full resident body at the hospital. The accuracy of the sample size has a margin of error about 23 percent. The information, however, does indicate a valuable body to develop, moving forward. The primary value stems from understanding that residents have a strong appreciation for the valuable information that their senior residents have provided them in terms of both instruction and support over the years. This is consistent with recent research that suggests that learning from seniors is an essential component of a resident's education. Furthermore, their own training of others involved hands-on direct care. In addition, the learning experiences involved positive feedback. The residents indicated they had asked or had received their own feedback from their residents they had trained. Of note is the value of how to improve the resident's own teaching experiences. While many indicated on their own that they had good experiences, many of the comments regarding how to improve teaching carried valuable insight. The discussion surrounding how to create a residency specific teaching module may be useful for residents. This teaching module may help interns going into their specific residency learn the ins and outs of teaching their junior counterparts in the future. Each residency program will have a different teaching style that best complements that program, thus tailoring the resident teaching skills to this may benefit residents. This feedback was positive and indicated that the students learning improved substantially due to the residents' direct feedback. Finally, many of the residents indicated they would like to continue to train and help residents and others training under them to help them improve their education.

Discussion

Future research may benefit from having residents inform and educate each other about how to better improve their teaching skills. Informal teaching modules within each residency may allow residents to learn how to teach each other specific tasks. For example, exploring specific residency goals, such as central line placements in IM or radiology and OR procedure teaching in orthopedics may allow residents to obtain these necessary and specific teaching skills. Future research may benefit from identifying areas of improvement for specific residency teaching options in each residency. A survey detailing specific challenges residents face teaching junior residents and interns would benefit each residency program greatly. While all residents are learning how to teach via their master's program, a future survey can shed light on the value of how to apply these teaching skills within their domain.

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LECOM DEAN *(continued from page 8)*

and dental students to complete the training requirements for the DATA waiver.

The final objective of the curriculum success is to develop and to implement a LECOM community-based educational program designed for a variety of audiences.

Phase 3 — Reaching Beyond the First Two Years of LECOM Student Clinical Training

LECOM is working with individuals from Highmark and from Allegheny Health Network (AHN) to carry the opioid training beyond the first two years of student medical education. A new Task Force is underway to seek further resources and grant funding that will support educational programs during student clinical training that occurs outside of the classroom.

Additionally, the LECOM Institute for Successful Aging recently received federal funding through the LIGHT Grant to study an increasing trend toward SUD among the elderly.

The osteopathic philosophy is poised to best address this opioid crisis as LECOM advances the benefit of integrative medicine and the value of Osteopathic Manipulative Treatments to relieve pain post-operatively.

LECOM understands that in times of challenge our people have stood together proudly proclaiming strength, tenacity, and an unyielding determination to better the future. LECOM continues to lead from a place of influence, of insight, and of innovation. With such profound leadership — America *will* succeed in overcoming its obstacles.

 (continued from page 5)

private sector because their needs cannot all be met by the VA. Over the past few years, we read about some of the tragedies of that system when it came to delays. Those are administrative issues which can unfortunately happen anywhere. The services provided to patients are VERY GOOD. I have never met a patient who utilizes the VA that was unhappy with the care. The difficulties were all infrastructure and administration.

Medicare as we know it is running out of money. No shock. The need for supplemental coverage to help patients cover expenses continues to grow. What will patients do when the money runs out? Medicare is a program for specific populations such as retirees of a certain age or those unable to work and disabled. They need services; costs are high; Medicare pays some; patient pays the rest unless there is a supplemental insurance.

VA pays for nearly all. The trick is being able to get the service. The number of patients far exceeds the number of providers which is why some will seek outside physicians. When possible, the patients return to the VA for some services, including medications which are much more affordable (or free) and sometimes tests.

If those veterans and their families were not able to seek outside care, what would they do? Some already are unable to do so. What happens when we increase that number?

Medicare for all will become exactly that. The efforts to remove the private insurance companies would be catastrophic. The waits and administrative burdens would be placed upon the entire system. There would be no way for people to afford to go outside of the system. Can you imagine a patient having to pay cash for an MRI because the alternative would be to wait for an unknown and extended length of time? Then, once the patient has the study, (s)he goes back in line to wait for the Medicare for All provider to asses and decided upon the next course or else pay out of pocket to see a private provider and receive services at a private facility.

When the debates start to move to universal healthcare or socialized medicine, we hear the stories. How long someone needs to wait for heart surgery (sounds familiar) or the decisions of panels to refuse treatment due to cost and age (aka the death panels). These are what occur in countries with these programs. They are large factor in keeping the healthcare programs (government) solvent. There are also some exceptions which tend to revolve around the size of the population, but they are exceptions. Perhaps there are even some positive examples. The reality is AMERICANS WILL NOT STAND FOR THOSE PROBLEMS IN RECEIVING THE CARE. We (as physicians and as patients since we are both) encounter this daily. Do you want to tell your patient that (s)he is too old or sick to receive certain treatment and just needs to let nature take its course? Do you want it to happen to you?

There are many issues with healthcare today. There are many problems with how insurance companies, as well as the pharmaceutical industry, operate. I don't agree with everything they do. But presently, it is needed. The solutions are out there. We just need to sit down and think and work together instead of allowing the partisan debates and fighting take over.

(I admit, this is NOT a GREEN anything.)

Collegially,

Mark B. Abraham, DO, JD

 (continued from page 17)

One limitation of this study is that it investigates only one ED. A larger multi-center study looking at academic EDs, community EDs, and rural EDs could provide even stronger results. Another limitation is that some asthma exacerbations may not have been included in our study if, for example, they were found to also have a pneumothorax and the provider listed only pneumothorax as a diagnosis and failed to also list asthma exacerbation as a diagnosis. Our method of data collection would have missed these patients. Futures studies can try to also look at comorbidities and see if this affects the likelihood of positive chest X-ray results.

Conclusion

Based on the results of our study, we would recommend that chest X-rays be selectively ordered in patients with acute asthma exacerbation in the ED. One should consider a chest X-ray if the patient has had fevers at home or in the ED, or if the patient is being admitted. Obviously practitioners should use there clinical judgement and order a chest X-ray if they are truly concerned about complications or alternative etiologies that would affect management in the ED.

Dr. Brown would like to thank Nicole Peters, DO; Megan Dodge, DO; Christine Kositz, DO; Alexandra Pizarro, DO; Daniel Torrens, DO; and Yijin Wert, MSc, for their contributions to this paper.

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CONCERNS REGARDING LEGALIZING MEDICAL MARIJUANA *(continued from page 12)*

that "driving high" can double the risk of an automobile crash. The AAA Foundation for traffic safety found in Washington State, that fatal crashes involving recent cannabis use more than doubled after the state sanctioned the drug.

A national survey on drug use reports 21 million adults have driven with recent alcohol use and 12 million adults drive after recent use of illicit drugs in a study from 2016.

Lacing of marijuana with other narcotics is a problem, but not for discussion here.

In California, one can legally possess 28 grams of 1 ounce of marijuana.

The Auditor General of Pennsylvania is pressing the legislature to allow legal use of recreational cannabis. He says our revenues from taxes will be a good effect. I have reviewed the problems with Pennsylvania's Physician General, Dr. Rachel Levine and with PennDOT Secretary Leslie Richards, at a recent meeting at a Montgomery County Community College in Blue Bell. They agreed with my concerns over the health risks and driving risks and will follow up on these matters with the Governor and legislators.

I strongly urge all Pennsylvania physicians and clinicians to lobby against the legalization of recreational cannabis. I am not again the lessening of criminal penalties for cannabis use, but urge stronger penalties for DUI.

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CLINICAL ASSEMBLY & SCIENTIFIC SEMINAR

Radisson Valley Forge & Valley Forge Event Center, King of Prussia, Pennsylvania

CHOOSE Knowledge

MAY 1-4, 2019

EDUCATIONAL SESSION TOPICS

- BLS for Physicians
- Cardiology
- Endocrinology
- Medical Potpourri
- Pediatrics
- OMM Workshop
- PA Licensure Requirements
  (including opioids, risk management, patient safety)

EXHIBIT & SESSION HOURS

EXHIBIT HOURS

Wed., May 1 ..... 8:00 am - 4:00 pm
Thur., May 2 .... 6:45 am - 4:00 pm

SESSION HOURS

Wed., May 1 ..... 9:00 am - 6:30 pm
Thur., May 2 .... 7:00 am - 6:15 pm
Fri., May 3..... 7:00 am - 5:15 pm
Sat., May 4..... 7:00 am - 5:00 pm

CME INFORMATION

34 CATEGORY 1-A AOA CREDITS
(lectures/workshops)

POMA is accredited by the American Osteopathic Association to provide osteopathic continuing medical education for physicians. POMA will report CME and specialty credit to the AOA commensurate with the extent of the physician's participation in this activity.

Hotel Room Reservations

POMA's 111th Annual Clinical Assembly & Scientific Seminar will be held at the Radisson Valley Forge & Valley Forge Event Center. The conference site has two hotels, which are connected with interior hall access. Room blocks are available at both the Radisson Hotel Valley Forge and the Valley Forge Casino Tower. To reserve your room in the **Radisson Hotel Valley Forge, call (800) 333-3333 or visit http://bit.ly/POMA19RadissonBlock**. To reserve your room in the **Valley Forge Casino Tower, call (800) 596-0341 or visit http://bit.ly/POMA19CasinoTowerBlock**.

QUESTIONS? Contact the POMA Central Office and a team member will gladly assist you:

717.939.9318 ext 170 or toll-free in Pennsylvania **800.544.POMA ext 170** | f: **717.939.7255** | e: **cme@poma.org**

A Message from the Convention Committee

Mark your calendar and make plans to attend the POMA Annual Clinical Assembly! Our 111th meeting will be held May1-4 2019, at the Radisson Valley Forge and Valley Forge Event Center in King of Prussia, Pennsylvania.

The convention committee has planned an exciting four-day conference with the theme, **Choose Knowledge** complete with educational sessions, workshops, business meetings and social functions.

As always, we have an impressive education program lined up. Wednesday morning's opening session will feature POMA's leadership in a Town Hall meeting to discuss happenings within POMA and the osteopathic profession. We will also present awards to this year's Clinical Writing Contest recipients. Other sessions will feature updates in cardiology, endocrinology, pediatrics, medical pearls and regulatory requirements, including patient safety, risk management and opioid courses. We will also hold a BLS course and an OMM workshop. Our program will surely provide something for everyone!

The exhibit hall will again be a hub of activity aimed to **Enhance Knowledge!** Over 60 companies will be on hand to provide updates on new products, therapeutics, technologies, services and resources that will help your patients and your practice achieve greater outcomes. It will also be a place to network with colleagues, to learn about cutting-edge research from residents across the Commonwealth, and to enhance your career.

Previous conferences have included programs geared to our students and residents. This year we are excited to announce there will be a whole day devoted to student and resident events. On Thursday, the future of our profession will present their own cutting-edge research during two sessions of scientific poster presentations. The 4th Annual Resident Leadership Forum moved to Thursday and will provide tools and resources which will **Supplement Knowledge** gained through traditional training programs. Topics include leadership, contracts, finding the right practice for you, work-life balance, financial management, patient communication, and self-care. Participants will also have the opportunity to network with forum speakers and POMA leadership. This program is open to all interns, residents and fellows!

Please take a few minutes to review this brochure and plan to **Choose Knowledge** by attending this year's conference! Register online at **www.POMA.org** or detach and return your registration form.

If you have any questions, please call the POMA Central Office: 717.939.9318 or, toll-free in PA, 800.544.POMA.

We look forward to seeing you in King of Prussia!

POMA CENTRAL OFFICE 1330 EISENHOWER BOULEVARD HARRISBURG, PA 17111-2395

MAY 1-4, 2019
Radisson Valley Forge &
Valley Forge Event Center,
King of Prussia, PA

POMA 111TH ANNUAL CL
SCHEDUL

WEDNESDAY, MAY 1

REGISTRATION	New Jersey Room	8:00 AM – 6:30 PM
EXHIBITS	Pennsylvania Room	8:00 AM – 4:00 PM
BREAKFAST	Pennsylvania Room	8:00 AM – 9:00 AM
S. LAWRENCE KOPLOVITZ, DO, KEYNOTE ADDRESS	Delaware Room	9:00 AM – 10:15 AM
MICHAEL F. AVALLONE, DO, OPENING SESSION - POMA Leadership Town Hall Meeting	Delaware Room	10:15 AM – 11:45 AM
POMA CLINICAL ESSAY AWARDS CONTEST PRESENTATION - Mark Abraham, DO, JD	Delaware Room	11:45 AM – 12:00 PM
BASIC LIFE SUPPORT FOR PHYSICIANS - John Becher, DO and staff	Parkview Ballroom	9:00 AM – 12:00 PM
PRODUCT THEATER FUNCTION	The Venue	12:00 PM – 1:00 PM
CONGESTIVE HEART FAILURE UPDATE AND MANAGEMENT: A REVIEW OF CLINICAL TRIALS - Joyce Wald, DO	Delaware Room	1:00 PM – 2:00 PM
CURRENT MANAGEMENT OF PATENT FORAMEN OVALE - Bryan Kluck, DO	Delaware Room	2:00 PM – 3:00 PM
BREAK – EXHIBITS	Pennsylvania Room	3:00 PM – 3:30 PM
OSTEOPATHIC COMMENT IN CARDIOLOGY - Jennifer Lorine, DO	Delaware Room	3:30 PM – 3:45 PM
CARDIAC AMYLOIDOSIS: DIAGNOSIS AND MANAGEMENT - Gene Iucci, DO	Delaware Room	3:45 PM – 4:45 PM
UPDATE ON LIPID MANAGEMENT – A REVIEW OF GUIDELINES AND RECENT TRIALS - Douglas Jacoby, MD	Delaware Room	4:45 PM – 5:30 PM
THE CARDIAC PATIENT – WHEN TO REFER - William Hirsch, DO	Delaware Room	5:30 PM – 6:30 PM
BREAK		6:30 PM – 7:00 PM
POMA HOUSE OF DELEGATES MEETING	Grand Ballroom	7:00 PM – 10:00 PM

THURSDAY, MAY 2

REGISTRATION	New Jersey Room	6:30 AM – 6:30 PM
EXHIBITS	Pennsylvania Room	6:45 AM – 4:00 PM
CONTINENTAL BREAKFAST	Pennsylvania Room	6:45 AM – 7:15 AM
POMA HOUSE OF DELEGATES MEETING	Grand Ballroom	9:00 AM – 11:00 AM
SCIENTIFIC POSTER - SESSION 1	Pennsylvania Room	9:00 AM – 10:30 AM
CLINICAL NEUROPATHIES ASSOCIATED WITH DIABETES - Joseph Lubeck, DO	Delaware Room	7:00 AM – 7:45 AM
HOW AND WHEN RETINOPATHY SHOULD BE TREATED - Leonard Ginsburg, MD	Delaware Room	7:45 AM – 8:30 AM
Q&A PANEL DISCUSSION	Delaware Room	8:30 AM – 9:00 AM
BREAK – EXHIBITS	Pennsylvania Room	9:00 AM – 9:30 AM
OSTEOPATHIC COMMENT IN ENDOCRINOLOGY - Jennifer Lorine, DO	Delaware Room	9:30 AM – 9:45 AM
BEHAVIORAL CHANGES IN PATIENTS WITH DIABETES - Burton Mark, DO	Delaware Room	9:45 AM – 10:30 AM
NEW TECHNOLOGIES IN DIABETES MANAGEMENT - Jeffrey Freeman, DO	Delaware Room	10:30 AM – 11:30 AM
Q&A PANEL DISCUSSION	Delaware Room	11:30 AM – 12:00 PM
RESIDENT LEADERSHIP PROGRAM	Pennsylvania Room	11:00 AM – 2:00 PM
PRODUCT THEATER FUNCTION	The Venue	12:15 PM – 1:15 PM
SCIENTIFIC POSTER - SESSION 2	Pennsylvania Room	1:30 PM – 3:00 PM
MANAGEMENT OF PULMONARY NODULES - Daniel Parenti, DO	Delaware Room	1:30 PM – 2:15 PM
DISEASES MAKING A COMBACK - Robert Jones, DO	Delaware Room	2:15 PM – 3:00 PM
BREAK – EXHIBITS	Pennsylvania Room	3:00 PM – 3:30 PM
OSTEOPATHIC COMMENT - Jennifer Lorine, DO	Delaware Room	3:30 PM – 3:45 PM
THE ABNORMAL URINALYSIS – WHAT TO DO ABOUT MICROHEMATURIA, PROTEINURIA, PYURIA WITHOUT INFECTION - Michael Levin, DO	Delaware Room	3:45 PM – 4:30 PM
FIBROMYALGIA VS. POLYMYALGIA - Richard Pascucci, DO	Delaware Room	4:30 PM – 5:15 PM
SKIN CANCER OVERVIEW - Richard Johnson, DO	Delaware Room	5:15 PM – 6:15 PM

INICAL ASSEMBLY & SCIENTIFIC SEMINAR

LE OF EVENTS

FRIDAY, MAY 3

REGISTRATION	New Jersey Room	6:30 AM – 5:00 PM
CONTINENTAL BREAKFAST	Pennsylvania Room	6:45 AM – 7:15 AM
PEDIATRIC GERD - Jennifer Webster, DO	Delaware Room	7:00 AM – 8:00 AM
ADVERSE CHILDHOOD EXPERIENCES - Pat Bruno, MD	Delaware Room	8:00 AM – 9:00 AM
BREAK	Delaware Room	9:00 AM – 9:30 AM
OSTEOPATHIC COMMENT IN PEDIATRICS - Jennifer Lorine, DO	Delaware Room	9:30 AM – 9:45 AM
CHILDREN AND ASTHMA - Timothy McCloskey, DO	Delaware Room	9:45 AM – 10:30 AM
PEDIATRIC NEUROLGY - Anne Marie Morse, DO	Delaware Room	10:30 AM – 11:15 AM
PEDIATRIC PALLIATIVE CARE - Robert Tamburro, MD	Delaware Room	11:15 AM – 12:00 PM
PRODUCT THEATER FUNCTION	The Venue	12:15 PM – 1:15 PM
URGENT CARE SKILLS FOR DIFFERENT DELIVERY MODELS - Robert Dolansky, Jr., DO	Delaware Room	1:30 PM – 2:15 PM
FORENSIC MEDICINE - Gregory McDonald, DO	Delaware Room	2:15 PM – 3:00 PM
MEDICAL CONCERNS FOR OUR RETURNING WARRIORS - Jonathan Oline, DO	Delaware Room	3:00 PM – 3:45 PM
PSYCHOPHARMACOLOGY FOR PRIMARY CARE - Deana Bidey, DO	Delaware Room	3:45 PM – 4:30 PM
GENDER IDENTITY AND MEDICINE	Delaware Room	4:30 PM – 5:15 PM
OMM WORKSHOP - Alexander Nicholas, DO and staff	Parkview Ballroom	1:30 PM – 4:30 PM
POMA PRESIDENT'S RECEPTION & STATE BANQUET	The Venue	6:00 PM – 10:00 PM

SATURDAY, MAY 4

REGISTRATION	New Jersey Room	7:00 AM – 12:00 PM
CONTINENTAL BREAKFAST	Delaware Room	6:45 AM – 7:15 AM
PHYSICIAN WELLNESS: HOW TO AVOID BURNOUT - Samuel Garloff, DO	Delaware Room	7:00 AM – 8:00 AM
PAIN MANAGEMENT AT THE END OF LIFE - Michael Srulevich, DO	Delaware Room	8:00 AM – 9:00 AM
PRESCRIPTION DRUG LAWS AND EMERGING DRUGS IN THE COMMUNITY - Ed Cartwright, MA	Delaware Room	9:00 AM – 10:00 AM
LUNG CANCER - Karen Arscott, DO	Delaware Room	10:00 AM – 11:00 AM
TECHNOLOGY UPDATE: ADVANCES IN HEALTHCARE DELIVERY, MONITORING AND MEASURING - Pamela Goldman, DO	Delaware Room	11:00 AM – 12:00 PM
PRODUCT THEATER FUNCTION	Pennsylvania Room	12:00 PM – 1:00 PM
RECOGNIZING AND REPORTING CHILD ABUSE IN PENNSYLVANIA	Delaware Room	1:00 PM – 3:00 PM
UNCONSCIOUS BIAS - Lawrence Beaser, Esq.	Delaware Room	3:00 PM – 4:00 PM
TELEMEDICINE: MITIGATING RISKS FOR YOUR PATIENTS AND YOUR PRACTICE - Ingrid Hubbard Reidy	Delaware Room	4:00 PM – 5:00 PM

This schedule is tentative and subject to change. Please check the POMA website for the most up-to-date information.

CHOOSE Knowledge

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POMA 111th Annual Clinical Assembly & Scientific Seminar Registration Form

CHOOSE Knowledge

MAY 1-4, 2019
Radisson Valley Forge & Valley Forge Event Center, King of Prussia, PA
FOLLOW US: #POMA19

34 Category 1-A AOA CME Credits Available, Education Sponsored by POMA

POMA is accredited by the American Osteopathic Association to provide osteopathic continuing medical education for physicians. POMA will report CME and specialty credit commensurate with the extent of the physician's participation in this activity.

MAIL OR FAX COMPLETED REGISTRATION FORM TO POMA
MAIL: 1330 Eisenhower Blvd., Harrisburg, PA 17111
FAX: 717.939.7255 **PHONE:** 717.939.9318 ext. 170

OR

REGISTER ONLINE
www.POMA.org

PART 1 — REGISTRANT INFORMATION

Name_____ AOA Number _____ Guest Name_____

Office Address_____

City _____ State _____ Zip _____ Phone (_____) _____

Email_____ COM/Grad. Year _____ DOB* _____ Last 4 SSN* _____

*REQUIRED FOR CHILD ABUSE COURSE

Board Certified? ☐ Yes ☐ No If yes, are you: ☐ Osteopathic Boarded ☐ Allopathic Boarded ☐ Dual Boarded

Specialty(s) _____ NPI Number _____ PA MedMal Expiration (MM/YY) _____

PART 2A — REGISTRATION TYPE

	BEFORE 4/1	4/1-4/22	ON-SITE
☐ Active or Life Member of POMA or Respective State Society — Receives CME Credits	$495	$595	$695
☐ Life Member of POMA or Retired Physician — No CME Credits	$125	$125	$125
☐ DO/MD Non-members	$1020	$1120	$1220
☐ Osteopathic Residents and Students are Complimentary	$0	$0	$0
☐ Allied Health Professionals (PA, RN, CRNP, etc.)	$495	$595	$695
☐ Practice Manager/Administrator (registered physician name: _____)	$75	$75	$75

PART 2B — OPTIONAL BLS COURSE REGISTRATION

BLS COURSE - WEDNESDAY, MAY 1 - 9:00 AM - 1:00 PM

This course provides an opportunity to refresh your skills in foreign body airway obstruction and CPR for victims of all ages plus the use of an AED, all in an American Heart Association course led by AHA-certified instructors. Course materials will be sent by April 15, 2019 (pocket mask will be distributed during the course). **Course is limited to 60 participants and pre-registration is required.** Participants MUST be registered for the Clinical Assembly.

☐ Yes, I would like to register for the BLS for Physicians course.....$75

PART 3 — FUNCTION ATTENDANCE (INCLUDED WITH REGISTRATION)

DO YOU PLAN TO ATTEND THE:	I PLAN TO ATTEND	I DO NOT PLAN TO ATTEND
Wednesday Product Theater Luncheon	☐	☐
Thursday Product Theater Luncheon	☐	☐
Thursday Resident Leadership Forum (Residents and Students Only)	☐	☐
Friday Product Theater Luncheon	☐	☐
Friday Evening President's Reception & Banquet (2 tickets)	☐	☐
Saturday Product Theater Luncheon	☐	☐

PART 4 — PAYMENT METHOD

CHOOSE ONE:

☐ Check made payable to "POMA" | ☐ Visa ☐ Mastercard ☐ American Express ☐ Discover

Name on Card _____ Card No. _____ Exp. _____/_____ CVV_____

IF BILLING INFO IS DIFFERENT FROM PART 1:

Address _____ City _____ State _____ Zip_____

REGISTRATION FEE TOTAL:_____

POMA OFFICE USE ONLY: CHECK NO. _____ AMOUNT _____

NOTE: All registrations will be reviewed for accuracy and completeness by POMA prior to approval. A $75 processing fee will be deducted on cancellations received before April 1, 2019; a $100 processing fee will be deducted on cancellations between April 1 — April 21, 2019. NO REFUNDS will be given AFTER April 21. A grievance policy is included in the Clinical Assembly program booklet.

CME Quiz

Name _____

AOA # _____

1. What percent of acute asthma exacerbation patients received chest X-rays in the ER?
   a. 31%
   b. 55%
   c. 69%
   d. 89%

2. What was the percentage of positive chest X-ray results?
   a. 1.2%
   b. 7.8%
   c. 32.3%
   d. 78.9%

3. What factors were statistically significant in finding positive chest X-ray results?
   a. Chest pain, fever 38-39 C, fever > 39 C
   b. Fever 38-39 C, fever > 39 C, subsequent admission
   c. Fever 38-39 C, fever > 39 C, severe presentation
   d. Chest pain, severe presentation, fever > 39 C

4. Residents are indicated as one of the key sources of knowledge for students under the Graduate Medical Education Core Curriculum?
   True False

5. A survey conducted of residency deans by ACGME found that more than 75% indicated more instruction on training residents on how to teach was needed.
   True False

6. The One-Minute Preceptor Teaching tool has been found to be an effective training tool for residents to improve their teaching skills.
   True False

To apply for CME credit, *answer the following questions and return the completed page to the POMA Central Office, 1330 Eisenhower Boulevard, Harrisburg, PA 17111-2395; fax (717) 939-7255; e-mail cme@poma.org. Upon receipt and a passing scores of the quiz, we will forward 0.5 Category 2-B AOA CME credits to the AOA CME Department and record them in the POMA CME module.*

Answers to Last Issue's CME Quiz

1. True
2. e
3. True
4. True

(Questions appeared in the December 2018 Journal.)

Submit Your Ideas

Have a question, idea or opinion? We want to hear from you! No topic is off limits, no word count is required. Send a letter or original research to Mark Abraham, DO, JD, editor of the JPOMA c/o bdill@poma.org.

Protection you can trust.

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ISMIE is the medical professional liability insurance provider Pennsylvania's osteopathic physicians trust. As POMA's endorsed carrier, POMA members and their practices are eligible for new policy discounts, physician-led claims management, risk management webinars and onsite practice assessments. Visit us at POMA's 111th Annual Clinical Assembly and Scientific Seminar to discuss coverage options, or go to www.ismie.com/poma to learn more.

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