On some days, Dr. Ryan Kirby brings a stethoscope to work. On other days, he brings a gun.

That’s because the first-year emergency medicine resident is also a cop.

“As a general rule, I am supposed to carry a gun while in public to be at a state of readiness,” said Kirby, a resident physician at Genesys Regional Medical Center with Michigan State University. “Practically, that doesn’t always work out. It’s kind of hard to ‘pack heat’ in scrubs.”

What started as a summer job became a second career for the 35-year-old Flint, Mich., native. But his path towards law enforcement began long before medical school, according to Kirby.

From 1996 to 2004, Kirby worked for the Genesee County Sheriff’s Department, which offered a unique program to cross train police officers as paramedics. The transition to emergency medicine was natural, Kirby said.

“The same type of deductive reasoning used to narrow a differential diagnosis is what it takes to reason through a criminal investigation,” said Kirby, who works two to three police shifts per month to give his fellow full-time officers a day off.

“Interviewing hundreds of people as witnesses, complainants and even suspects has helped me feel comfortable talking with people in general and narrowing my question scope to illicit the key facts,” he said.

continued on page 11
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The academic year in review

The academic year is almost over and we begin to transition to the next stage of our lives. Whether it’s becoming an intern, a senior resident, or a new attending, change is upon us. EMRA has gone through unprecedented changes and I would like to take a moment to reflect on what these changes have meant to us.

We have experienced many firsts this year. Our membership base is nearing 9,000 members strong, encompassing 5,500 residents; 1,200 medical students; 225 fellowship members; 100 international; and more than 1,700 alumni members. These numbers signify important news to me. For one, alumni membership was introduced a few years ago, and seventeen hundred people felt it important to continue their support of the organization that helped them through their training years. Of course, continued access to this great publication and the EMRA Antibiotic Guide doesn’t hurt.

Student membership has jumped tremendously from three short years ago. With nearly 1,500 students entering emergency medicine training programs each year, it’s evident that students are becoming more educated about their career prior to beginning training. Finally, with resident membership nearing six thousand, representing more than 90 percent of all residents in emergency medicine training programs, EMRA’s unified voice and consensus during Representative Council meetings are becoming even more influential.

EMRA is proud to be the recipient of this year’s ACEP Teamwork Award which recognizes a group’s outstanding contributions and participation in Council activities. I’m both proud and pleased to work with the last several years of EMRA Board of Directors, from those who recently finished their terms to those who are currently with us. It is truly an honor and a privilege to work with such a dedicated group of people. The future of our specialty is better with devoted people such as yourselves volunteering your time.

For those reading this article, I implore you to get involved. There are many reasons people choose not to participate, usually lack of time. Residency is tough, residency is time consuming, but nothing opens your eyes more to the specialty of emergency medicine than involvement with EMRA. From the ranks of committee members to the Board of Directors, EMRA will keep you informed on the long-term goals of our specialty. Daily shifts in the emergency department as a resident can get tiring, frustrating, and at times demoralizing, but nothing will help you realize your long-term goals as a resident more than participation on the national level. Organized medicine will allow you to appreciate the battles fought by our predecessors for recognition. Acceptance as a specialty is complete and we face new challenges today that need to be approached as a strong and unified field.

Another excuse that I’ve heard for not getting involved is the fear of not doing a good job. You are a physician, entrusted with people’s lives. You’ve made it through countless years of education, exams and volunteering. You all are capable of this challenge, all you need is the desire. Leadership is no easy task, but there are levels for everyone. There is a committee, a task force, or a board position to suit your abilities and desire for involvement. Your work and time is appreciated. We will be holding our annual elections in October for a new President-Elect, Vice-Speaker, Technology Coordinator, Academic Affairs Representative, and Secretary/EM Resident Editor. I invite anyone who’s interested to speak with me further about opportunities available.

When you graduate residency, you join a larger group. A group of approximately 27,000 board certified emergency medicine physicians. I hope that you don’t give up your voice by discontinuing your ACEP membership. Their organization has been fighting for our jobs for more than 40 years and will continue to support our rights as emergency physicians. Their roster, including resident members, is more than 27,000 strong, but they need every graduating emergency medicine resident to continue their membership. As they lobby Congress, approach the AMA, and release statements to the press, it is important to have as many of us standing behind them as possible. As a whole, and within the medical profession we are constantly in competition behind them as possible. As a whole, and within the medical profession we are constantly in competition for recognition and rights, and without a seat at the table during these discussions, we as a specialty will never get our needs represented.

In April, more than 100 residents were versed on the most important issues facing our specialty at the recent Leadership and Advocacy Conference in Washington, DC. We made up 25 percent of conference attendees, and more than 25 percent of resident attendees gave to NEMPAC at the resident Give-A-Shift Level. I commend these residents who learned firsthand the importance of involvement and had their eyes opened to the future of our specialty. Everyone at this conference was informed about the direction of emergency medicine and ways to make a difference.
I close with an open invitation to discuss any topic of your choosing: What is the Access to Emergency Medical Services Act? Why is the 20/220 pathway being closed and forcing us to repay our loans early? What is the physician workforce shortage including the emergency medicine workforce shortage? Email me at president@emra.org and I will do my best to answer any questions you have.

Meet your new President-Elect

Dr. Edwin Lopez graduated from the California Polytechnic University of Pomona in 2001, where he earned a Bachelor of Science in Biology. During this time, he participated in research endeavors at the San Jose State University and at the Baylor College of Medicine.

He was President of the emergency medicine interest group at St. George’s University after deciding to pursue a career in the specialty. Currently, he is a senior resident at the Detroit Medical Center/Wayne State University, Sinai-Grace Hospital Residency Program.

Dr. Lopez was elected to the EMRA Board of Directors in October 2007, first serving as the Vice-Speaker, then Speaker of the Council. As a program representative and chair of multiple committees, he has functioned in several capacities within the association. Notably, he served as the delegate to the American Medical Association’s Resident & Fellow Section and as an alternate councilor to the ACEP Council.

While in office, Dr. Lopez authored several publications including the regular Rep Update electronic newsletters, the EM Resident magazine Speaker Reports and most recently, the EMTALA chapter for the EMRA Emergency Medicine Advocacy Handbook.

After graduation, Dr. Lopez will be returning to Southern California as he has accepted a faculty position with the Loma Linda University Medical Center.
A long time ago, in a land far, far away two future emergency physicians became friends, and didn’t even realize their true destinies.

Well, not so far away. It was Jeffersonville, NY, 1998, when I met Giuliano De Portu. He and I, with about 100 rookie photographers, gathered at an exclusive conference known as Barnstorm.

When you are a young news photographer, one of the big honors is to be accepted to attend Eddie Adams’ Barnstorm workshop. Photo editors from Time, Sports Illustrated, The New Yorker, the Associated Press and Magnum photos, sifted through more than 1,000 portfolios of up-and-coming photographers from all over the globe. As luck would have it, Giuliano and I were assigned to the same team: the Purple Team.

Last year I was searching the Eddie Adams’ Barnstorm Website for other alumni and who do I see listed as a medical student at Ross University? It was my old friend Giuliano. It was good to see he’d continued shooting, and had also had a career change to medicine. We kept in contact over the year through email and I recently learned that he will be starting his emergency medicine residency at the University of Puerto Rico in July.

“I am pleased to announce a photography contest for our members. Send us your photos, your own moments in history, over the next two months. I welcome all types of photos, including portraits, landscapes, wildlife, black and white photos, as well as art and printmaking, and medical photography.”

“A surgeon’s hands.”

Photo courtesy of Giuliano DePortu
“There is no other way to tell a story succinctly and beautifully than with a photograph.”

There is no other way to tell a story succinctly and beautifully than with a photograph. Iconic images of the young girl running from napalm (photographed by Nick Ut), the girl crying over the dead body after the Kent State massacre (by John Filo), the lonely migrant mother (by Dorothea Lange) or the VietCong spy being shot by a South Vietnamese officer (by Eddie Adams), are slices of those moments in history.

I am pleased to announce a photography contest for our members. Send us your photos, your own moments in history, over the next two months. I welcome all types of photos, including portraits, landscapes, wildlife, black and white photos, as well as art and printmaking, and medical photography. The winners’ photos will be published in the October/November issue of EM Resident in time for Scientific Assembly.

I do miss lugging around my N90s and my assortment of lenses to various events, meeting people and telling their stories. Photojournalism taught me that everyone has a story to tell, and that is certainly evident in the emergency department.

Send entries to photocontest@emra.org. Items will be judged by our editorial staff, including former award-winning photojournalists Lisa Bundy, MD, and Giuliano De Portu, MD. The deadline for entries to be received is July 20, 2009. For complete submission guidelines and contest rules, please visit www.emra.org.

Leaders in a race in Eldoret, Kenya. Photo courtesy of Giuliano DePortu

Wanda Rodriguez cries over the unconscious body of Raul Santana. Santana and others had a violent confrontation with police during a 1998 telephone worker strike against the selling of the government owned company. Photo courtesy of Giuliano DePortu
Residents made their voices heard

The Leadership and Advocacy Conference has been a secret gem for the past decade, bringing together the leaders of the specialty to champion the challenges of emergency medicine. The number of attendees continues to grow annually. This year’s attendance exceeded 400, with a quarter of those being resident members. Residents were responsible for the overwhelmingly successful Resident and First Timers Track. The newly organized track included three stimulating lectures, dynamic roundtable discussions, media training, and an excellent networking opportunity at the EMRA/YPS reception. With nearly 140 in attendance, the audience included residents, young physicians, and even some attending physicians. Next year’s conference will expand on this dynamic programming and hopefully will have you in attendance!

The goal of the conference, to take the message of the Access to Emergency Medical Services Act to the Hill, was an awe-inspiring triumph. With 350 ACEP members holding more than 400 meetings, the importance of emergency medicine and the challenges of overcrowding / boarding to all of our patients was heard loud and clear. Members of Congress who had not before been receptive, opened their doors to listen and showed a keen interest for our message. Letter writing, telephone calls, and advocacy on your part will help to continue this message. Visit ACEP’s webpage on the AEMSA Act (HB1188/S468) if you want more information and want to get involved.

Cynics might say that attendance and publications are not what matter in politics, it is contributions to the PAC. Residents rose to the challenge. A higher percentage of residents gave-a-shift this year at the conference than the attending physicians. This made a strong statement and was acknowledged by ACEP President, Dr. Nick Jouriles, during the conference assembly. Hopefully these residents will be able to encourage their colleagues at home to do the same. The strength of a group’s PAC gets you a seat at the table of reform. Emergency medicine has been the safety net for 40 years and deserves to have a prominent chair in designing the future of medicine.

Thanks deserved

Many residents came as a result of their department or chapter’s sponsorship. The Chair’s Challenge, which sends residents to the conference for free, has continued to grow annually. Thanks to all of those programs are deserved. If your program did not participate, start advocating for your sponsored attendance next year now!

Residents recognized daily

The strength of the resident contribution to emergency medicine was seen as well in EMRA’s Emergency Medicine Advocacy Handbook which was distributed at the conference. ACEP supported the publication financially, but also in their recognition of the strong work of residents in creating the first advocacy manual available for emergency physicians. All attendees of the Leadership and Advocacy Conference received a copy of the handbook and the responses were overwhelmingly positive. Many program directors and chapter presidents are ordering it for their programs as part of their advocacy curriculum. If your program has not yet, encourage them to do so! Also thank the authors that are at your programs for their hard work this last year.
Your turn to get involved

Many residents are interested in advocacy, but feel as though they do not have the time to invest. I encourage you to become involved, whether it is on the local, regional, or national level. Find the time to write an editorial or talk to your hospital administrator. Maybe you will advocate for a state law that improves safety. Possibly your passion is EMS and you will become a medical director. Whatever your calling, find a way to start as a resident and get involved. The habits that you learn now are the ones that you will keep for life.

We all say that when life “slows down,” we will do what we are passionate about. The reality is that even as we are busy as residents, it will not get any better in the future. Whether time is filled with a new family, new job, new home, or all of the above, life finds a way to fill up the spare moments. If you care about an issue and have been putting it off, I encourage you to carve out the time to make it count now. It may be a little work, but you will appreciate it in the end. My personal mantra is this: it is the energy of activation that you have to overcome, everything after that is downhill. Find a way to get over that hump and make it happen today.

EMRA would like to thank the following programs for their support in funding residents to attend the ACEP Leadership and Advocacy Conference in Washington, D.C.

Alabama Chapter ACEP
Albany Medical Center
Arizona Chapter ACEP
Brown Emergency Medicine
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Virginia Commonwealth University
Wake Forest University
Washington University in St. Louis

“What is advocacy? Simply put, it is a core competency for each of us at the front lines of the ongoing healthcare crisis. Some will simplify advocacy to be ‘just politics,’ but it is so much more. Advocacy is defined as speaking for a cause, often for a vulnerable person. This is at the very heart of what Emergency Medicine does day in and day out...”

In this clear, well-thought-out handbook, Dr. Schlicher and the chapter authors outline the essential issues surrounding Emergency Medicine today. Not just for the politically-minded, this resource is useful for the student, resident, physician, healthcare worker, patient or concerned citizen to help understand the important issues affecting all aspects of emergency care.

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More than 100 emergency medicine residents attended the recent ACEP Leadership and Advocacy Conference in Washington, DC. Make your voice heard — don’t miss next year’s event in April 2010.
First year resident strives to protect and serve

After graduating medical school in 2008, Kirby decided to return to his roots. He began to pull double-duty as an emergency medicine resident and police officer for the Swartz Creek Police Department.

Juggling the two careers has proven hectic, according to Kirby. But keeping them separate is another challenge altogether.

“The concern is obviously liability, because when he’s here, he’s a policeman,” said Swartz Creek Police Chief Rick Clolinger. “When he gets in a situation that’s medical, he takes caution in not crossing the lines between the two professions.”

While on patrol, Kirby said he has to resist the temptation to switch into ‘doctor mode.’ Instead, he allows pre-hospital providers to do their job, lending a hand only when needed.

When Kirby is at the hospital, he tries to down play his police background to patients. He finds that it deters the truthfulness of his patients’ histories, especially when it comes to illicit drug use and alcohol consumption.

But his double-life as a doctor does not go completely unnoticed at the police station.

“It makes me feel good because I get free medical advice without having to go to my doctor’s office,” Clolinger said. “It’s very nice for our community because he’s a good doctor and he’s an outstanding policeman. So to have someone on our staff like that is really an asset to our department.”

Despite the rigors of residency only beginning, Kirby said he plans to continue pursuing his passion outside the hospital. This may come to no surprise to his program director, Dr. Alan Janssen, who is himself a physician for the Oakland County Sheriff’s Department SWAT team.

Like his program director, Kirby aspires to become a SWAT team tactical physician, so that he may combine his knowledge of both fields to keep his fellow officers safe and healthy.

In the meantime, he will deal with the challenges of handling two professions.

“I have gone from job to job on occasion,” Kirby said. “And the other officers get a laugh when I show up to get changed in scrubs.”
It’s hard to believe that, by the time you are reading this article, my three years as an emergency medicine resident will have come to an end.

Never again will I have to respond to the question “are you a real doctor?” followed immediately by “…cause I don’t want to be seeing one of those interns” after I introduce myself to a patient. Done are the off-service rotations, hospital call and seemingly never-ending work hours. Coming back to residency was hard, no doubt about it, and I am looking forward to once again having more time to spend with my wife and two young children.

I would be remiss if I didn’t thank my wife for all the support she has offered and all that she has done for me and our children while I have been otherwise occupied with this little thing called residency. Preschool children don’t understand why Daddy is always at work, or that Daddy still has work to do even when at home. They have a very fixed sense of logic that at times I wish I could apply to my patient interactions. For example, when he doesn’t want to listen, my 3-year-old son has taken to saying either, “I can’t listen, my ears are closed,” or, “stop talking, my ears are all full.” Oh how I wish I could use those lines when I need to escape from a patient who has been rambling on about everything but the reason they are really in my emergency department. Or how about just being able to say mid-sentence, “I’m done, bye bye,” before walking out of the room or hanging up the telephone?

All kidding aside, though at times it seemed like I never saw my family these past three years, without my family there for me I might never had made it through. Residency is a trying time on both the resident and the resident family. Although life after residency will certainly be better, it will still be far from perfect.

Our profession is by nature one of high-stress, be it due to a patient who presents in extremis or simply a patient who is difficult to deal with, lack of resources, or any of the countless other stressors which we encounter during each shift. The effect of these stressors is evident in the high burn out rates among emergency medicine physicians.

While at work, we tend to focus on caring for our patients above caring for ourselves. How many times have you gotten to the end of your shift and realized that you hadn’t stopped to eat during your shift? Or that you’ve forgotten that it is your wife’s (or your own!) birthday?

In order to be able to succeed in our profession, wellness is a necessary aspect of everyday life. Society for Academic Emergency Medicine defines wellness
as “those skills, attitudes and beliefs that allow one to enjoy practicing emergency medicine for a long period of time, while at the same time allowing balance in one’s life.” Maintaining balance is essential to surviving in emergency medicine. Physician wellness remains a high priority issue for ACEP as evidenced by the inclusion of a membership section dedicated to wellness.

So, what measures can you take to help ensure your personal wellness, which ultimately results in providing better care for your patients?

Certainly, the best things to do are simple things such as proper sleep and diet. This is easy to accomplish in our profession, especially for a resident, right? Okay, maybe not. While issues such as scheduling are often out of our control, there are some simple steps that you can take.

Following a healthy (or healthier) diet is one thing, but perhaps even more important than what you eat is simply making sure that you do eat. Make a point to take a few minutes in the middle of your shift to eat something, and be sure that you are drinking adequate amounts of fluid (and perhaps caffeine!) throughout your shift.

Sleep is the next issue. Our profession is a unique one in that our doors never close, and you never know what the next thing to walk (or roll) through that door is going to be. We need to be constantly prepared, awake, and alert throughout our shifts, but the nature of our shifts often make sleep difficult. Be sure to maintain a proper sleep environment, a dark, quiet room, free of interruptions, to help ensure an appropriate amount of sleep regardless of the time of day.

Exercise is another key component to a well-rounded life. Even if it is just a 30 minute walk three times a week, remember that every little bit helps!

Maintaining positive interpersonal relationships is also vital to your overall wellness. Be it with a spouse, a parent, a child, or a friend, a 15 minute conversation can be all it takes to turn a bad day into a good one. The support that you receive from others is essential to maintaining a balanced life.

Though the bottom line is quality patient care, this cannot be accomplished without caring for yourself first.

Further information on the wellness section, which “provides an opportunity to learn what you can do to avoid burnout, enjoy a balanced life, and keep the vitality necessary to be a healthy emergency physician,” can be found at www.acep.org/acepmembership.aspx?id=30282.
Cell phones are being used to do a lot more than just dial numbers on the go. Look around, and I’m sure you’ll agree. It is hard to go anywhere without finding people futzing around on phones: surfing the web, messaging, keeping up with friends on social networking sites, expressing themselves via mobile “blogging” and/or “tweeting,” finding their way around with gps, taking photos, etc.

Some estimates show that “smart phones” represent about 90 percent of domestic cell phone growth in the past year. The problem with this trend is the seeming inverse relationship between features and battery life. The more bells and whistles your phone has, the more likely the battery life stinks.

I want to give you a list of “tweaks” that will enable you to use your phone for fun stuff like surfing the web and talking while increasing your battery life by more than 25 percent. This way you can use your phone and have it last a day in the pit.

- **Display settings:** Turn down the brightness of your screen. Set the brightness to as low as you can without losing the ability to read it. iPhone users should consider turning off “auto-brightness.” Decrease default time for screens to shut off from 1 minute to about 10 seconds of inactivity. If you’re done with your phone, then turn off the screen manually.

- **Audio settings:** Turn off the vibrate feature when not in silent modes. Turn down your ring tone volume. And try to keep your speakerphone usage to a minimum.

- **Communications settings:** Turn off the radios that you are not actively using (e.g., Bluetooth, IrDA, Wifi, and GPS). iPhone users can turn off the GPS by turning off “location services.” You can always turn these features on when you need them and you’ll see a significant improvement in battery life.

If your carrier allows you to select the type of Internet connections your phone uses, then turn off 3G (e.g., AT&T). GPRS/GSM/EDGE are slower than 3G, but are less battery intensive (especially when 3G coverage is limited). You would benefit from using these slower connections while doing things like messaging and composing emails, and only using the phone’s faster Internet connection when you want to do things like watching streaming video, etc.

Have your phone automatically check your email a little less often. The more frequently your phone checks for email the faster you drain batteries. Turn off “push” for email account such as Yahoo!, MobileMe or Microsoft Exchange. Have your phone “fetch” email at some predetermined interval like every one to two hours.

If you work in a “dead zone” then turn your phone off or put it in airplane mode, so your phone stops wasting significant amounts of energy looking for a signal that is not there.

Minimize web browsing, camera usage, media player, photo viewing, etc. If your phone allows multitasking – then close applications that you are not using rather than just minimizing them.

**About your batteries**

Believe it or not, cell batteries last the longest when they’re kept cool. So, don’t leave them in hot places like windows sills, cars or pant pockets. Ignore your phone when you first get it and it tells you that the battery is full. New batteries should be fully charged before their use.

Nickel-based batteries should be charged for about 16 hours. They should be fully discharged and then fully charged several times before starting normal charging patterns. It’s a good practice to fully discharge your nickel battery every two to three weeks.

Lithium ion batteries should be charged for about 5 hours. In contrast to nickel batteries, lithium-ion batteries have decreased battery life every time you fully discharge them. So when the battery gauges shows one bar left charge it. This being said, you should go fully charge and then drain the battery every couple of months.
Regions of EMRA led by dedicated few

The Emergency Medicine Residents’ Association (EMRA) is the largest and oldest independent resident organization in the world. With more than 9,000 members, EMRA has members in all corners of the nation. But did you know our membership is divided into geographic regions? EMRA is divided into 11 national regions and one international region. Each region is a vital component in the strength of our organization.

Each region is headed by a regional representative that is appointed by the Representative Council Speaker and Vice Speaker to serve a one or two year term. These “super representatives” were instituted to identify and empower new representative leaders, utilize members to help enhance the Representative Council, and to facilitate communication between program representatives and the EMRA leadership. They also serve to foster collaboration between residency programs within their respective region in an effort to strengthen the region and its members.

Despite covering a wide geographical area, regional representatives help to ensure that perspectives from different areas of the nation are presented to the EMRA Board of Directors. They contribute to our Representative Council by writing resolutions that direct EMRA to take a certain action or form a policy. Regional representatives contribute articles to our EM Resident magazine on a host of different topics. In addition, they are in constant communication with the Speaker and Vice Speaker in an effort to develop strategies to enhance program representatives.

The job requirements of the regional representatives are numerous, but worthwhile. Regional representatives are continually involved in the affairs of EMRA during the course of their term. As a result, they become quite familiar with the inner mechanics of EMRA, leaving residency as future leaders in emergency medicine leadership and advocacy.

Our regional representatives offer extraordinary and responsive service to the EMRA membership, program representatives and organization. I would like to thank all of our regional representatives for all their hard work over the years. If you are interested in applying for a regional representative position, please contact Edwin Lopez, Speaker of the Council, at speaker@emra.org or Kaedrea Jackson, Vice Speaker of the Council, at vicespeaker@emra.org.

Openings are available in:

- Region 1
- Region 4
- Region 5
- Region 6
- Region 7

Interested parties please email speaker@emra.org or vicespeaker@emra.org.
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The EMRA events at *Scientific Assembly* are specifically designed to meet the ever changing needs of residents and medical students alike in the specialty of Emergency Medicine. Receive valuable information that you need to succeed with more than 20+ hours of educational sessions, residency fair, job fair, Representative Council, and EMRA committee meetings, plus enjoy the opportunity to meet other residents and students from around the world. Visit [www.emra.org](http://www.emra.org) for more information.

### RESIDENT ACTIVITIES INCLUDE:

**EMRA Bloody Mary Breakfast**

Monday, October 5 / 9:00 am - 9:00 am

What better way to kick start the day than enjoying a hearty breakfast and bloody marys or mimosas with fellow residents? Hear all about what the week has in store for you at this must-attend primer to resident events at *Scientific Assembly*!

**EMRA Resident Forum**

Monday, October 5 / 9:00 am - 2:00 pm

Have you acquired all the information and development skills you need to succeed? We have expanded our educational program to help you get there. Residents definitely do not want to miss this forum and networking luncheon. Hot topics include:

- Developing Leadership Skills
- Fair Business Practices and Contract Basics
- Financial Planning for Young Physicians
- Maintaining Relationships outside the ED
- Maximize your Earnings
- Mechanics of the Job Search – Setting Yourself Apart: How to Stand Out in the Job Market
- Regional Breakouts for Job Seekers
- A networking lunch, and yes it’s FREE for residents!

**EMRA Job Fair**

Monday, October 5 / 5:00 pm - 7:00 pm

Looking for that perfect job? EMRA is here to help! All EM job seekers need to attend the largest and best Job Fair in the specialty of Emergency Medicine. With more than 150 companies expected to participate in this year’s event you are bound to find the job that is just right for you!

**EMRA Medical Student Forum**

Sunday October 4 / 8:00 am - 2:00 pm

We know that 3rd and 4th year medical students have a lot of questions regarding their transition to an EM residency and EMRA has compiled a panel of distinguished program directors, authors, and EM physicians to help you get those much needed answers. Areas of interest include:

- Career Paths in EM
- Getting Into the Residency of Your Choice
- How to Shine During Your Residency
- Interview Tips
- Strengthening Your Residency Application
- What Residency is Right for Me?
- Why Choose Emergency Medicine?

The medical student luncheon is a phenomenal opportunity to mix with program directors in a more intimate setting, which can answer any questions you can throw at them regarding residency years. A vital for all EMRA medical student members.

**EMRA Residency Fair**

Sunday, October 4 / 3:00 pm - 5:00 pm

Do you know where you want to match? Attend the EMRA Residency Fair to help you scout out the more than 100 residency programs from around the globe. Medical students cannot afford to miss this terrific opportunity to network with program directors, coordinators, and chief residents.

### MEDICAL STUDENT ACTIVITIES INCLUDE:

**EMRA Medical Student Governing Council Meeting**

Saturday, October 3 / 1:00 pm - 5:00 pm

What can you help accomplish as a member of this council? Come make a difference. All engaged medical students are encouraged to attend this meeting.

**EMRA MSGC/EMIG Representative Mixer**

Saturday, October 3 / 5:30 pm - 7:30 pm

Attend this fun and informal social opportunity to meet with other medical students, the MSGC officers, and EMIG representatives from around the country.

**EMRA Medical Student Forum**

Sunday October 4 / 8:00 am - 2:00 pm

We know that 3rd and 4th year medical students have a lot of questions regarding their transition to an EM residency and EMRA has compiled a panel of distinguished program directors, authors, and EM physicians to help you get those much needed answers. Areas of interest include:

- Career Paths in EM
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### REPRESENTATIVE COUNCIL AND MEMBERSHIP MEETINGS:

Council and membership meetings are your chance to participate in the governance of EMRA and in the policy development for the specialty. Candidates for EMRA Board or Council offices will have an opportunity to address the members. Representatives will also be presented with policy resolutions for deliberation and decision.

**EMRA Representative Council Reference Committee Public Hearing**

Monday, October 5 / 3:00 pm - 4:30 pm

**EMRA Representative Council Meeting and Town Hall**

Tuesday, October 6 / 9:00 am - 1:00 pm

**EMRA Committee Meetings**

Wednesday, October 7 / 1:00 pm - 5:00 pm

### OTHER FUN STUFF:

**EMRA Fall Awards Reception and 35th Anniversary Alumni Reunion**

Tuesday, October 6 / 5:00 pm - 7:00 pm

**EMRA Party**

Tuesday, October 6 / 9:00 pm - ?

What is all the hype about? Come join us and find out. Meet up with old friends and make new ones at this “renowned” EMRA event held at a local hotspot! It’s a great way to unwind after a full day of *Scientific Assembly* activities!
Talking with Taku

Wills passionate about medical student education

Dr. Charlotte Wills is the Associate Program Director and Director of Medical Student Education in the Department of Emergency Medicine at Alameda County Medical Center/Highland General Hospital in Oakland, Calif.

How did you get involved in medical student education?
After residency I stayed on at Highland. I took a junior faculty position that placed an emphasis on teaching. Because we have a large number of students rotating through our emergency department, there are a lot of educational opportunities with the medical students. My involvement with the students started with lectures and clinical teaching, but quickly expanded to the point where I was assigned the position of the medical student clerkship director. It was a fortunate development because this position fit my interests and was a natural progression of what I was already doing.

Why do you think your clerkship is so successful?
We have been successful because the department places a lot of value on the medical students. We view the clerkship as a “Farm System” for the major leagues. The students are tomorrow’s residents and emergency physicians, and our faculty gives them equal footing as the residents.

“There is nothing more rewarding in my career than coming to national meetings and seeing people that I remember as medical students who are now attendings and clerkship directors.”

Taku Taira, MD
Chief Resident
Bellevue/NYU
New York, NY
Immediate Past Chair, Research Committee

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when it comes to their teaching and education. I believe that this educational environment is the reason our rotation is so popular and we have been able to attract highly capable and talented people to our residency and to emergency medicine as a whole.

As a junior faculty member, what were some of the pitfalls of being in such an important position?
I think the largest pitfall for junior faculty is the feeling that you are not in a position to give advice. You have to realize that being 3 to 4 years removed from being a student is both a strength and a weakness. You can identify what they are going through, but you don’t have the advantage of time and experience. That’s why you need to also be able to draw from senior faculty to help guide both you and the students.

What do you see as the differences between the educational needs for medical students and for residents?
The educational needs of the medical student and the resident are on a continuum. Interns and medical students are similar; they are trying to develop a base of knowledge and the confidence to see a patient and to have an opinion on what to do. With senior residents, the focus shifts to learning about patient interaction, efficiency, and flow. It is clear that the medical students and the junior residents need guidance. However, the

notion that senior residents don’t want or need your help is inaccurate. The senior residents have needs and as teachers we have to find ways of teaching them in a supportive manner without being smothering.

Do you have any advice for somebody thinking about getting involved in medical education?
There is no such thing as being too junior to teach. The earlier that residents are exposed to teaching, the sooner they can decide if they want it to be part of their career. It starts with being aware of what is happening in your own department and realizing that there are opportunities at every level of training. Opportunities include things like teaching procedure labs and curriculum committees. Junior residents can easily lecture to the medical students on topics they already know.

Any final words?
I think that as emergency departments get busier and busier, it is really easy to forget that teaching is a lot of fun. I teach and am involved with medical students because it is fun. There is nothing more rewarding in my career than coming to national meetings and seeing people that I remember as medical students who are now attendings and clerkship directors. Having played a small part in where that person is today is incredibly rewarding.
Consider peeling the onion with a shotgun

I think it is just easier not to eat or drink during a shift to avoid the gastrocolic reflex. Often times, in our department the shared snack bonanza in the lounge and my own environmentally friendly Nalgene® bottle sabotage this simple strategy. Eventually I will find my bladder full and each time I try to walk to the bathroom to relieve the ever-growing mass in my pelvis, I get distracted with a lab test result, phone call or patient request. Despite the risk of teetering along the line of renal failure with dilated kidneys, there is the anticipation of the tiny masochistic joy obtained from relieving oneself after such brutal punishment.

Similarly, with an always increasing pressure from a steady flow of patients in a crowded emergency department, there is a great satisfaction from unblocking the backlog of patients waiting to be seen. To address this “efficiency” element of our residency training, the 2007 EM Model Update by Thomas, et al. identifies one of the tasks of an emergency physician as “simultaneously consider[ing] multiple factors involved in patient care that may alter the direction of patient management.”

However, unlike a clinical disease entity such as myocardial infarction, emergency department efficiency has no standard of practice and evidence-based studies are few and far between. So this conveniently leaves an open niche where experience-based, anecdotal “n of 1” knowledge can still be shared.

Recently I overheard one of my favorite attendings defend his “shotgun” approach to patient flow management in our government-run hospital, “With everyone else getting a part of the stimulus bill, why shouldn’t our patients?” Grouping your orders in sick patients can improve flow by bombarding your patient with ECG, X-rays and labs simultaneously rather than piecemeal. You get results faster to push patients towards admission while keeping the nurses and techs from running back and forth to the patient’s bedside and away from completing orders you wrote on all the other patients in the emergency department. Why not get the blood cultures now instead of waiting for the CXR, lactate level, or the third CBC after the first two hemolyzed? Few would argue against frontloading your orders before even seeing the hypotensive, tachycardic, and febrile patient with a cough.

Medical purists may object citing the increased costs and risks of unnecessary testing as evidenced by the estimated $67 billion spent on defensive medicine each year. And, of course, there’s always the old adage of “be careful what you ask for.” Not only do you have increased time waiting for labs to be drawn, and the tests performed, you must actually stop to interpret those results. The occasional “incidental-oma” now forces you to address that mild hypokalemia on your ankle sprain patient. On the other hand spending hours “peeling the onion” with one lab test at a time, or other test sequentially doesn’t necessarily improve patient flow and may even lead to delayed care.

Some areas beyond the control of the physician directly include lab turnaround...
Consider peeling the onion with a shotgun time, radiology turnaround time, inpatient bed control, or technological hurdles and fall under systems and institutional management. The areas we do control can also increase our efficiency, which improves patient satisfaction, and most importantly, our educational experience.

One article by Denny, et al. in Canada identifies multiple strategies to streamline your practice without compromising accuracy or increasing error. They divide strategies into three categories: physical, cognitive, and disposition. Carrying the proper tools on you (trauma shears, ultrasound), anticipating diagnostic bottlenecks and engaging simpler cases before tackling more complicated ones, and engaging consultants early after determining disposition seem simple, but can often fall by the wayside when you run in survival mode.

As you progress through residency, part of your education outside of the textbook is learning to manage your patient flow. With experience comes improved efficiency, but with increasing crowding and an aging population, finding that balance between a shotgun and a scalpel may be the difference between complete chaos and competent care.

**References**

A fond farewell: It’s time to steer your own ship

It has been a wonderful year for me, and I have enjoyed every minute of my tenure. It was a pleasure to meet so many of you at conferences, meetings, and on the interview trail. The experiences I have had throughout this year have opened my eyes to so many issues in emergency medicine, medical education, and healthcare. I have had the privilege of working with an incredibly talented Medical Student Council, and the honor of representing medical students on EMRA’s Board of Directors. For those opportunities, I thank you.

A short year ago I launched my year as Chair of the Medical Student Governing Council with a small list of promises to all of you for the year to come. In my articles I’ve provided information about issues important to you as a medical student, calls to action for the needy and advice to get out of the emergency department and experience all that emergency medicine has to offer. Medical student programming at ACEP’s Scientific Assembly has never been better, or better attended. Medical students now represent more than 13 percent of EMRA’s membership, with close to 1,200 student members. It has been a successful year to say the least.

As my tenure as Chair ends and John Anderson takes over, I’d like to leave you with what I think is the unifying theme for the year, not just for me, but probably for the nation as a whole: Be involved. Whether it’s getting involved with your class leadership, joining the 911 Legislative Network, working on a political campaign, or organizing a sock drive, do something that interests you.

People out there every day are making decisions that affect you. Congress is working on healthcare reform and physician reimbursement, EMRA is drafting policy and by-laws regarding your training, your school is working on curriculum development and the list goes on. We can’t be all places at once, and to try would overwhelm anyone. However, we can choose what we’re passionate about and we can get involved. You can be the one making those decisions, or at least, participating in them.

Too often I hear students say they can’t get involved, or it’s not their place as students, but this couldn’t be further from the truth. We are the future; if not now, when? Every decision made today directly effects our lives for years to come, more years than the congressman or attending currently calling the shots. It’s up to us to take the wheel and steer this ship.

I hope this past year has been as rewarding and exciting for you as it has for me, and I know the years to come will be as well. Whatever you choose to do, be it academics, community, rural, policy, research, or something no one has done yet, be sure you’re the one setting the course and making the decisions.
“I am excited to work with this year’s new Medical Student Council, an extremely talented group with a variety of interests and experience.”

New MSGC chair to continue high leadership standards

As the yearly progression for medical students begins — from the classroom to the wards, from the wards to the selection of a specialty, and from the role of student to the responsibility of intern — the Medical Student Governing Council and Medical Student Council likewise make the transition from past leadership to future direction.

I would like to thank the outgoing Medical Student Governing Council as they move forward in their careers. With the enthusiasm and abilities of this group, I am sure that they will all continue to be leaders in their new positions. I would also like to thank outgoing Chair, Chris Scott, for his vision and directorship throughout the year. We will work our hardest to uphold the high standard set by this group.

For those of you undergoing personal career transitions who have not visited the EMRA Website recently, there are many great resources available for students. For rising second years, consider the mentorship program to help gain exposure to the field of emergency medicine. For third years, check out some of the clinical pearls, as well as the recorded lectures from leaders in the specialty on the residency application process from *Scientific Assembly* in 2008. If you are beginning your fourth year, you can find a wealth of emergency medicine-specific information on writing a CV, interviewing, planning your schedule, and many other helpful links.

In addition to the many resources, opportunities, and relationships that EMRA provides for students, this year we hope to continue to enhance communication with medical student members and encourage non-members to join. As such, we will reach out with student-specific information in publications, such as the *EM Resident* and *What’s Up in Emergency Medicine?* as well as events such as the medical student forum and residency fair at *Scientific Assembly* in Boston in October 2009.

Furthermore, I encourage students to reach out to us with any questions or concerns. You can reach me, or one of the regional representatives, through email addresses provided at www.emra.org under the “Medical Student Governing Council” tab.

I am excited to work with this year’s new Medical Student Council, an extremely talented group with a variety of interests and experience. With representatives from across the country, as well as across the globe, I am confident that we will be able to accurately reflect the interests of the medical student community and continue to foster and cultivate student involvement in emergency medicine.

I look forward to working with all of you this year and encourage you to let us know how we can better serve you.

*John Anderson, MSIV*

University of Colorado School of Medicine
Aurora, CO
Medical Student Governing Council Chair

“We will work our hardest to uphold the high standard set by this group.”
Medical student finds inspiration at the Capitol

This past April I had the opportunity to join other medical students, residents and attendings in Washington, DC, to attend ACEP’s Leadership and Advocacy Conference. With health care reform at the forefront of public discourse, it was an inspiring and informative trip.

As a fourth-year student, I had just finished my clinical rotations and had some time before beginning residency at University of Cincinnati this summer. The conference, which includes meals, is free of charge and open to anyone. There were many lectures and roundtables about the issues facing emergency medicine. It was a unique opportunity to hear from both political and emergency medicine leaders as well as other experts from around the country.

Many call this one of the best conferences of the year because of its relatively small and often informal nature. It was a chance to meet the leaders of emergency medicine over breakfast, lunch or drinks and absorb their wisdom and ideas. I was fortunate to join ACEP President, Dr. Nicholas Jouriles at a small informal dinner and hear his thoughts as well as find out what ACEP is doing. The networking with other medical students, residents and attendings was unparalleled, and made the trip for me.

So how can you as a medical student get involved and advocate for our patients and specialty? The most important thing to do is be informed. Visit the EMRA and ACEP Websites. Get involved in EMRA and local ACEP chapters. Subscribe to alerts at (http://www.capwiz.com/acep/mlm/signup/) and find out about the active issues facing our specialty. Join the ACEP 911 Legislative Network. EMRA recently published the Emergency Medicine Advocacy Handbook that outlines the nuts and bolts of the legislative process, and provides tips on how to advocate effectively.

Once you are aware of the issues take action. Call or email your congressperson (find them at http://capwiz.com/acep/dbq/officials/?lvl=L) and voice your opinion. Even a brief phone call can have an impact.

I recently received an action alert about an important issue one day while waiting for rounds; I made a two-minute phone call to my legislator. To my surprise, a few weeks later I received a personal letter from her thanking me for calling and telling me what she did to address the issue. This illustrated to me the value of advocacy. Our voices count.

While in Washington we had the opportunity to meet with Congresswoman Jean Schmidt of Ohio and inform her about the issues facing emergency medicine. She spent 20 minutes listening to our stories of overcrowding, boarding and the unavailability of on call specialists. We also met with the deputy chief of staff for Representative John Boehner, the House Minority Leader, to encourage the passage of bills supporting emergency care.

With so many people lobbying for a variety of issues, and many misconceptions about emergency medicine out in the public and press, it is important to educate our elected officials. Many are unaware of the stories that transpire daily in our emergency departments and are willing to learn about the realities “in the pit.”

Every person is a potential patient of ours should an emergency arise. As future emergency medicine physicians we are used to advocating for our patients on a micro scale. We often have to convince other physicians we are used to advocating for our patients during an emergency arise. As future emergency medicine physicians we are used to advocating for our patients on a micro scale. We often have to convince other physicians we are used to advocating for our patients during a call and roundtables about the issues facing emergency medicine. It was a unique opportunity to hear from both political and emergency medicine leaders as well as other experts from around the country.

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Once you are aware of the issues take action. Call or email your congressperson (find them at http://capwiz.com/acep/dbq/officials/congress) and encourage them to incorporate emergency care in health care reform and support our bills. There are also important emergency medicine issues that are handled at the state and local level. Contact your local elected official (http://www.capwiz.com/acep/dbq/officials/?lvl=L) and voice your opinion. Even a brief phone call can have an impact.

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Every person is a potential patient of ours should an emergency arise. As future emergency medicine physicians we are used to advocating for our patients on a micro scale. We often have to convince other services to consult and admit patients or perform tests. This is macro advocacy, where we advocate for not only our future patients, but patients from all over the country.

If the recent presidential and congressional elections showed anything it was that every vote counts. Our elected representatives desire our votes and consequently are sensitive to the needs of their constituents. With emergency care at a breaking point and health care in crisis our patients and specialty need support. Take action, be part of the solution, you can make a difference. Come to Washington, DC next April, it is well worth the trip. I guarantee you will have an amazing time.
Respect EMS role in emergency medical care

When pursuing a career in emergency medicine, there must be recognition, respect and attention given to the important role and capabilities of emergency medical services (EMS). Emergency medicine does not start in the hospital. It begins in the field when EMS providers initiate patient contact. A basic understanding of the role and capabilities of EMS in the continuum of acute care helps to ensure the best patient care.

The extensive training received by EMS providers is the foundation of their vital role to emergency medical care. This training is centered on the fundamental skills of basic life support and advanced life support. Basic life support consists of basic airway management, the initiation of CPR, the administration of oxygen support, immobilization, first aid, and depending on state-specific laws and policies, administration of selected medications. Advanced life support consists of advanced airway management, more advanced medication administration, EKG interpretation, and procedures such as needle decompression and defibrillation.

EMS plays a critical role in initial patient assessment. The EMS curriculum focuses on assessment and recognition of signs and symptoms along with an overall impression of the patient’s condition. The assessment report of the patient’s condition along with other important scene details provided by EMS can help the emergency physician in forming a differential diagnosis before the patient arrives at the hospital.

While on the scene, EMS crews will attempt to perform initial stabilization of the patient. The severity of the patient’s condition as well as the stability and safety of the scene itself determine how rapidly the patient is transported. Case in point, if there is a hemodynamically stable patient with a simple extremity fracture sustained at the school playground, EMS is likely to spend relatively more time on scene than if a patient is unable to protect his or her airway secondary to an anaphylactic reaction. Trauma patients will be immobilized and initially stabilized with oxygen and control of obvious hemorrhage. If paramedics responded to the call, IV lines will be started and medications might be administered. The initial care of the acutely-ill patient often begins with EMS providers.

The EMS crew often works with the medical director or dispatching agency to activate a sequence of essential hospital resources such as the trauma team, additional specialists, or the cardiac catheterization lab. The activation of these resources usually begins with the brief description of the patient and pertinent clinical information. For example, the EMS crew might provide the emergency department staff with the following report: “We have a 45-year-old male patient with acute onset substernal chest pain radiating to the left jaw with associated diaphoresis and ST-segment elevation on EKG. BP is 150/86, HR 106, respirations 24 and shallow. ETA is 10 minutes.” This brief yet vital information communicates a wealth of clinical information to the emergency physician and ensures the rapid assessment and initiation of definitive treatment when the patient arrives in the emergency department.

When the patient arrives at the emergency department, additional details provided by the EMS crew can provide critical information that has considerable impact on patient care. For instance, EMS professionals often observe clues at the scene, such as empty pill bottles or building layout that answer questions about an unconscious patient or about the mechanism of a traumatic injury. These may be the only details that the emergency physician has available to him or her.

As our colleagues in the care of the acutely-ill patient, EMS providers should be treated with the respect that is due to professionals who, in the name of patient care, risk their own safety daily. These professionals help to form the foundation of the care provided to patients in the emergency department.

“A basic understanding of the role and capabilities of EMS in the continuum of acute care helps to ensure the best patient care.”
Hemoptysis cause difficult to determine

**History**

A 75-year-old female presents to the emergency department, complaining of spitting up blood. She was brought in by EMS, who was called because the patient's physical therapist witnessed her spitting up bright red blood. She denies any nausea, vomiting, or abdominal pain. She also reports feeling weak since this morning.

Her past medical history is significant for breast cancer, severe pulmonary hypertension, endometrial cancer now s/p total hysterectomy, lung pseudotumor, mechanical pulmonary valve, CHF, atrial fibrillation, and hypertension. Her past surgeries are a unilateral mastectomy, pacemaker placement x 2, open heart surgery x 2 (ASD, cadaveric pulmonary valve and tricuspid repair), mechanical prosthetic pulmonic valve replacement, and a tricuspid valve annuloplasty. Her home medications include lopressor, hydralazine hcl, Micardis, Nexium, Lasix, spironolactone, Levaquin, and Coumadin. She has allergies to Septra, penicillin, and lisinopril. She was living at home prior to admission and currently being treated for a UTI with Levaquin.

**Initial workup**

- CBC - WBC 14.3 HCT 29.3 Platelets 188
- Chem 10 – Na 141 K 3.4 Cl 105 CO2 30 BUN 30 Cr 0.7
- INR 4.89
- D-dimer 2.75ug/ml (positive above 0.4)
- Troponin was negative.
- BNP 2116
- Lactate 1.0
- Urinalysis: negative
- ECG: atrial fibrillation, rate of 115bpm, no evidence of ST elevation or depression
- CXR - Continued right-sided pseudotumor w/ possible infiltrate in R upper and middle lobes, bilateral effusions
- CT Pulmonary Angiogram: There was no evidence of pulmonary embolism, aortic aneurysm or aortic dissection. There was significant, chronic dilatation of the pulmonary arterial system, most prominent within the left main and main pulmonary arteries. There was also significant dilatation of the right atrium, interval development of scattered foci of alveolar consolidation in a bronchopneumonia pattern, mild layering bilateral pleural effusions

**Physical exam**

Vital signs are as follows: BP 185/86, Pulse 100-120s, respiratory rate 14, T 97.6°F, pulse ox 98% on 3LNC. Physical exam was remarkable for a thin elderly female in NAD, A&Ox3; crusting of blood around lower lip, no obvious source of blood in nares or mouth. Breath sounds were diffusely diminished bilaterally, coarse on right greater than left, with end expiratory wheezing. Heart sounds are irregularly irregular, with loud multiple mechanical clicks. Extremity pulses are intact, 3+ pitting edema.

**What is in your differential diagnosis for hemoptysis? How can you narrow this down after your workup?**

The differential diagnosis for hemoptysis includes pulmonary embolism (PE), bronchiectasis, bronchitis, tuberculosis,
pulmonary hypertension, CHF, pneumonia, lung cancer, Goodpasture syndrome, Wegener’s granulomatosis, influenza, and foreign body. The most common cause of hemoptysis is infection, most commonly bronchitis. In this patient, she was considered low risk for PE, and since PE was in the differential diagnosis, a d-dimer was ordered. It was positive therefore a CTPA was ordered. The CTPA was negative for PE, but did indicate a possible pneumonia. She also did have a history significant for pulmonary hypertension and CHF, which could have been contributing to the hemoptysis.

ED and Hospital course: The patient initially was stable, but then began to have bouts of hemoptysis (~300ml) and hypoxia. Her O2 sats decreased to 80 to 85% with the hemoptysis. At this time, she was intubated and placed with her right side down (as this was the suspected area of bleeding). She was treated with vitamin K, FFP and PRBCs, and started on vancomycin, aztreonam and gentamycin given her PCN allergy and a recent hospitalization to cover for hospital acquired pneumonia.

She was admitted to the ICU and an emergent bronchoscopy was performed. Blood throughout her airways was visualized, but there was no active bleeding. Cardiothoracic surgery was also consulted, and determined that patient was not a candidate for lung resection because of her severe pulmonary hypertension. She underwent a diagnostic arteriogram by IR, which also revealed no active bleeding, but the source was visualized. The angiogram identified the source as a bronchial artery, and embolization was successful. She did not re-bleed during this hospital course.

The evaluation of someone with hemoptysis starts with the history and physical exam. It might be difficult to determine where the etiology of the bleeding is. It might be unclear whether it is coming from the GI tract or the upper airway, and workup to differentiate between them all might be necessary. The amount of hemoptysis is important to delineate for both diagnosis and treatment, but can also be difficult to determine.

Massive hemoptysis is variably defined as 100ml to greater than 600ml of blood within 24 hours. In the case of massive hemoptysis, airway protection and protection of the nonbleeding lung is extremely important. If blood spills into the non-bleeding lung, the airway could become blocked by blood clot or decrease gas exchange. In order to protect the nonbleeding lung, positioning the patient with the bleeding side down can prevent spillage.

You should address the ABCs in these patients, and correct any coagulopathies. Early intubation with a large ETT should be considered. Also, intubating the right or left mainstem bronchus could be considered, though technically difficult. Emergent bronchoscopy can be performed for both diagnosis and treatments such as cautery, epinephrine or vasopressin injection, topical thrombin or laser therapy.

In cases when a patient is stable enough to go to CT, a chest CT can help to determine the location and the source of the bleeding. Some studies have shown that both CT and bronchoscopy increases diagnostic yield. For continued bleeding, arteriographic embolization can acutely stop the bleeding and be used for a bridge to surgery. Unfortunately, some patients with embolization rebleed in the next 6 to 12 months. Emergent surgery for lung resection is a last resort when other interventions are unsuccessful.

Clinical pearls
- Addressing a patient’s ABCs are key in the treatment of massive hemoptysis, and any coagulopathies should be corrected.
- The patient should be positioned with the bleeding sign down.
- A CT scan may be able to provide the location as well as the etiology of the bleeding, but may not be possible in the unstable patient who cannot leave a closely monitored setting.
- Early intubation and emergent bronchoscopy can be both diagnostic and therapeutic.
- A pulmonologist and thoracic surgeon should be consulted for patients with massive hemoptysis.

References
Emergency medicine residents are familiar with change. To stay on top of your game, you balance your PGY status, salary changes, practice opportunities, debts, expenses, budgets, families, and numerous other situations. As you balance your personal and professional lives, I want to take this opportunity to provide you with an update of the most recent changes in the financial community, as they relate to you. The following information is current as of May 1, 2009.

**Savings rates**

- For the most part, savings rates (money markets, CD rates, savings accounts) have all plummeted to around 1.0% - 1.5% annual yield. This is not a reason to move that money in to something else though, like gold. Keep your cash savings in savings and remember that it is for emergencies and financial confidence.
- Because of member benefits, many credit unions have the most competitive rates at the moment for these cash assets.
- Another source of good cash yields is in permanent life insurance contracts. Some of the guaranteed accounts in these plans are paying in excess of 5.0%, although there are restrictions and considerations involved in using such an asset as your savings account.

**Student loans**

Effective July 1, 2009, Economic hardship deferrals are scheduled to change dramatically, potentially squeezing the cash flow of everyone who had planned to defer through residency. Make sure you contact your lender and understand what this means to you and what repayment obligations you may be forced to begin. We are seeing most of the repayments in the $350.00 - $390.00 per month range, a chunk of change on a resident’s pay. This may force a change in your monthly priorities.

**Disability insurance**

Always in a state of change, the disability industry continues to provide increasing opportunities to emergency medicine residents. Following are the most recent movements in that industry:

- Residents are now able to purchase up to $5,000 of monthly specialty specific / own occupation coverage and lock in the ability to increase by up to another $10,000 in the future.
- There are three companies with specialty specific contracts through age 65 or 67.
- Only one company is left with own occupation and no limitations on
mental nervous disorders – all others are 24 months.

- Three of the five major disability companies now limit the amount of disability insurance a resident can get if they have a signed contract that will have group long term disability benefits – obtain disability insurance before you sign your contract!

- Conversion options can often provide great benefits if you have medical history and are not able to purchase individual disability coverage or have medical history that would lead to an undesirable contract. Consult your GME or human resources department for information. If you have adverse medical history - It is critical that you do this before you finish your training!

- ** The EMRA Disability Program provides you with an independent analysis of the most competitive contracts in your state, makes a recommendation specific to your needs and does all the work for you! For more info: complete the survey at www.integratedwealthcare.com/financialeducation **

Life insurance
The life insurance marketplace continues to be under priced, in my opinion. Fundamental changes in the way life insurance is bought and now sold by clients should result in gradual and perhaps significant price increases over the next 7 to 10 years.

- **Insurance tip** - This is a good time to “warehouse” insurance. Buy a lot more than you need and lock in a low premium now, while in your most healthy and lowest age bracket. In the future, you already have coverage and if you don’t need it you can cancel or potentially sell it to a settlement company.

- **Buy term** – There are a lot of good reasons to buy permanent life insurance. Not many of them make sense during residency. In the early years of your training or practice, buy lots of term insurance for pennies on the dollar and direct your other cash towards paying off debt, building savings, and funding retirement.

**Retirement strategies**
Roth IRAs continue to provide significant tax leverage for residents.

- **Tax tip:** If you have been max funding your Roth IRA during residency and will soon lose the ability due to increased income, consider max funding a non-deductible traditional IRA. In the year 2010 you can convert any funds in that IRA in to your Roth IRA (paying taxes on any gains) and ultimately end up being able to get two or three more years of Roth funding! Consult your tax advisor or financial planner for planning strategies.

Independent contractors
If you are pursuing a position as an independent contractor, the following may be helpful in getting yourself started and staying organized:

- Establish yourself as an actual legal entity such as an LLC or S-Corp
- Establish a separate checking account in the name of the entity and also get a credit card in that entity name
- Deposit all emergency medicine related income in to that corporate account and pay yourself a salary or “Owners Draw” from those funds
- Run all business expenses through that corporate account and all individual expenses through your individual account
- As you gain financial stability, hire an outside practice manager or bookkeeper to maintain all of your contracting, billing and coding, reimbursements and to maintain your bank accounts.
- Spend your time away from the emergency department doing something completely unrelated and enjoyable.

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“Effective July 1, 2009, Economic hardship deferrals are scheduled to change dramatically, potentially squeezing the cash flow of everyone who had planned to defer through residency.”
In emergency medicine, the ABCs are one of the crucial aspects of our everyday lives. As part of airway management, we should also feel comfortable with the initial mechanical ventilation settings and parameters. Patients arrive at the emergency department with variety of illnesses that may require us to secure the airway in order to increase oxygen delivery to their tissues. Conditions such as neuromuscular disorders, pneumonia, pulmonary embolism, sepsis, noncardiogenic and cardiogenic pulmonary edema will require different ventilator settings.

Once we have established the clinical scenario that led to our patient’s respiratory failure, ventilator settings must be addressed. In order to achieve this, we as clinicians must understand the basic concepts of mechanical ventilation. Invasive ventilation is focused towards the following goals: protecting the airway, improving gas exchange, alleviating respiratory distress, and assisting with airway and lung healing. Every patient is different, but most of them will fall within one of these categories.

- **Failure to perform the work of breathing.** This applies to every patient who cannot move air within his lungs, such as Guillan-Barre, tetanus, quadriplegics, and botulism.

- **Failure to oxygenate.** Poor oxygenation secondary to a disease process is seen in Pulmonary Embolism, Pneumonia, Aspiration, and Sepsis.

- **Failure to ventilate.** Patients cannot get rid of carbon dioxide secondary to an increase in dead space as seen on COPD or restrictive lung conditions.

- **Failure to protect the airway or nonpulmonary causes for respiratory failure.** This applies to the status epilepticus patient, intoxications, trauma and altered mental status with failure to protect the airway.

In order to set disease-specific mechanical ventilator parameters, we must familiarize ourselves with ventilator mode, respiratory rate (RR), tidal volume (Vt) and FiO2 requirements, while keeping the patient’s clinical scenario in mind. The emergency physician must be aware of the available equipment and understand the various settings that can be modified to provide adequate ventilation. There are numerous
modes and ventilators, but to mention a few, AC and SIMV are two of the most commonly used and helpful modalities used in the emergency department.

**Assist Control (AC)**

With this mode the patient will receive full respiratory support either because of his initiative or at the set interval, either way a full mechanical breath is delivered. This mode is great for patients with failure to perform the work of breathing and is not useful to wean them from the ventilator. The parameters to be set with this mode are: Vt, Positive end-expiratory pressure (PEEP), RR and FiO2.

**Synchronized Intermittent Mandatory Ventilation (SIMV)**

This mode was introduced to ventilate neonates with rapid respiratory rates and provides partial ventilatory support. SIMV prevents progressive lung hyperinflation (breath stacking) and autoPEEP in patients with tachypnea. It also helps prevent respiratory muscle atrophy from prolonged periods of mechanical ventilation. Minute ventilation is set so that the machine will initiate if no spontaneous breath is developed by the patient. Any breath can be initiated by the patient, but the volume will be dependent on the patient’s effort. This mode is great to wean a patient from the mechanical ventilator. Parameters to be set with this mode: Vt, PEEP, RR, FiO2 and Inspiratory pressure or Pressure Support (PS) for the initiated breaths.

As we mentioned earlier, we must decide disease-specific ventilator parameters once we have stratified our patients. Here are several examples of parameters that can be applied based on the patient’s needs as discussed above.

- **Failure to work.** These patients usually have no lung pathology. Their parameters need only aid in normal ventilation until they recover, thus the following MV parameters can be used: Mode: AC, RR: 12, Vt: 8ml/kg, PEEP: 5cm H2O or lower FiO: 21%, once they start to recover, consider SIMV mode.

- **Failure to oxygenate.** Hypoxic respiratory failure, these patients need higher levels of oxygen. These patients will benefit from increased PEEP, thus the following parameters should be used: Mode: SIMV, RR: 14, Vt: 8ml/kg, PS: about 15cm H2O, PEEP: 10cm H2O, FiO2: 50%.

- **Failure to ventilate.** In hyperbaric respiratory failure as in COPD or any restrictive lung disease, the patients suffer from air trapping and over distended lungs. They may not tolerate high VTs or high PEEP. Mode: AC; RR: 8; Vt: 6 ml/kg; PEEP: 5cm H2O or lower; FiO2: 35% and titrate to maintain oxygen saturation above 90%.

- **Failure to maintain airway.** A decreased respiratory drive (intoxication, trauma, seizures) will lead to hypercarbic respiratory failure. They don’t suffer of any lung pathology, thus they only need support to soon be weaned from the ventilator. Mode: SIMV; RR: 12; Vt: 8ml/kg; PS: 10cmH2O; PEEP: 5cmH2O; FiO: 30% or less.

The choice of mode and ventilator setting should be geared towards correcting the underlying respiratory problem, while providing adequate minute ventilation to meet the metabolic demand and avoid any harm. Close monitoring should be established once the patient is intubated. Continuous assessment of vital signs, oxygen saturation, mental status changes, and serial ABGs should be followed in order to help solve the patient’s clinical condition. Remember, every patient is different.

**References**

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Emergency medicine physicians (EP) assimilate vast quantities of information in a myriad of medical fields and utilize the latest imaging modalities and tests to offer the highest standard of care to patients. Although intended to diagnose and triage emergent patients, EPs continue to act as a safety net for our country’s uninsured/underinsured populations, frequently offering primary care services.

With emergency departments (ED), hospital wards and intensive care units operating at or over capacity, patients are commonly boarded in the ED, sometimes for two or more days. During their extended stay in the ED, patients may undergo testing that had been traditionally reserved to in-patient wards or units. We anticipate that this reality is only likely to grow. One of the tests EPs should be familiar and comfortable with is the electroencephalogram (EEG).

The EEG can provide the trained eye with invaluable information as to the patient’s neurologic status and function and can even impact diagnosis and treatment options for the EP. We have designed a three part series to elucidate the use of an EEG in an emergency setting.

Part I of our series introduces the basic principles of EEG to provide a context for the EPs later interpretation of EEGs. Part II offers several case studies EPs are likely to encounter including herpes encephalitis, coma/traumatic brain injury, etc. Part III is designed to offer clinical pearls for the busy EP and to test your knowledge.

At normal functioning capacity, the brain produces low voltage electrical activity. This neuro-electrical activity can be measured via the electroencephalogram (EEG), which is recorded ordinarily from the scalp via small, highly sensitive surface electrodes. Although the precise origin of this electrical activity is unknown, most neurophysiologists theorize that this activity represents dendritic synaptic potentials in cortical pyramidal cells [1].

This electrical activity results in a range of normal EEG recordings with various characteristics, reflective of age and states of consciousness. Consequently, the trained eye understands normal variations and can recognize generalized malfunction of the brain by correctly interpreting EEG data and may also identify localized or paroxysmal abnormalities.

With the EEG, electrical activity is recorded from many different standard sites on the scalp according to the international (10 to 20) electrode placement system. The nasopharyngeal lead is a long electrode that is passed through the nose and rests on the back of the throat near the mesial aspect of the temporal lobe [2]. Since the typical EEG machine has 16 to 20 channels, a series of different 16 to 20 groups of electrode pairs are evaluated. Recording electrical activity requires measurement of voltage between two electrode sites. It is impossible to record from all possible pairs of electrodes at the same time.

There are two different styles of recording:
1. In the referential method (previously referred to as “monopolar”), a series of different electrodes are all referred to the same electrode (e.g., the “references”), which is presumed to be relatively electrically inactive (this is similar to the limb leads of an electrocardiogram). Commonly used references are the ears (A1 and A2), vertex (C2) or a non-cephalic reference, such as a “balanced neck-chest” system.
2. With the bipolar method (which utilizes leads that are similar to the chest leads of an electrocardiogram), a series of electrodes in a line are recorded serially as successive pairs. The first recording
is taken from the first and second electrodes, and the second recording, from the second and third electrodes, and so on. Use of the different montages gives various views of the electrical activity from different parts of the brain.

The electrical activity from any electrode pair can be described in terms of amplitude and frequency. Amplitude ranges from 5 µV to 200 µV. Frequency of EEG activity ranges from 0 Hz to approximately 20 Hz. The frequencies are described by Greek letters:

1. Delta — 0 to 4 Hz
2. Theta — 4 to 8 Hz
3. Alpha — 8 to 12 Hz
   (See Figure 1 and 2)
4. Beta — More than 12 Hz  (see Figure 1)

In the normal awake adult with eyes closed, there is a prominent alpha rhythm observed in the posterior part of the head. (See figure 1) The amplitude of the alpha falls off anteriorly, which is frequently replaced by some low voltage beta activity. Often, a little low voltage theta activity is observed in fronto-central or temporal regions. The alpha rhythm disappears (or blocks) when the eyes open. This rhythm (which is prominently posterior, blocks eye opening, and is usually in the alpha frequency range) is frequently called the alpha rhythm.

With drowsiness (stage I sleep), the alpha rhythm gradually disappears, fronto-central beta activity may become more prominent and fronto-central-temporal theta activity becomes most significant. As sleep deepens, high voltage single or complex theta or delta waves, which are called vertex sharp waves, appear centrally.

Stage II sleep is characterized by increased numbers of vertex sharp waves and centrally predominant runs of sinusoidal 12 to 14 Hz activity called sleep spindles. See Figure 3. Deeper sleep, characterized by progressively more and higher voltage theta and delta activity, is not usually seen in routine EEG recordings.

With the information provided in part I of this series, the EP should now be familiar with awake and sleep waveform patterns and variants as part of routine EEG interpretation. In Part II of this series, we will illustrate several instances of neurologic dysfunction and the EP will be able to call on his skills with EEG waveforms as a new weapon in his diagnostic arsenal. We will conclude with Part III and offer some clinical pearls for the interpretation of EEGs under pathologic conditions and allow the practitioner to test their understanding with a quiz.

Acknowledgement
The authors would like to thank Lawrence Roy MBA, RRT, Director, Cardiopulmonary Services for Moffitt Cancer Center, his assistance with the EEG figures.

References
An 89-year-old woman with a history of diabetes and hypertension presents to the emergency department complaining of weakness. The history was primarily obtained from the patient’s daughter as the patient herself had difficulty with speech and could not provide the full history. The patient was last seen by her daughter at approximately midnight and was in her usual state of health, talking and moving all of her extremities normally.

The patient went to bed and shortly after that the patient’s daughter heard some abnormal breathing sounds coming from the patient’s room. The daughter went to check on the patient and she was not speaking and could not move her right side. The family called 911 and the patient arrived in the ED about 45 minutes later.

On physical exam, the patient was tachycardic with a pulse of 112 and hypertensive with a blood pressure of 201/111. In general, the patient did not respond to verbal commands. Her pupils were sluggishly reactive and equal bilaterally. The rest of her neurological exam showed that the patient grimaced to pain and had a fixed gaze to the left. She moved her left upper extremity voluntarily although not to command. She had decreased movement of the right upper and lower extremities.

The patient was placed on a cardiopulmonary monitor and given oxygen by face mask initially. A finger-stick glucose was 242. IV access was obtained and blood and urine were sent for analysis. The patient was then taken urgently to CT scan; the images are shown.

**Question**

What does the CT scan show? What other signs on CT scan are often seen with this finding? Does this sign guide your management regarding thrombolytics?

**Answer**

The CT scan of the brain shows a hyperdense MCA sign on the left, which is one of the CT signs of acute thrombus. To the “newbie” this finding may be mistaken for blood. The other findings associated with acute ischemic change that are sometimes found with the hyperdense MCA sign on CT scan are:

- Hypoattenuation involving one-third or more of the middle cerebral artery (MCA) territory
- Obscuration of the lentiform nucleus
- Cortical sulcal effacement
- Focal parenchymal hypoaattenuation
- Loss of the insular ribbon or obscuration of the Sylvian fissure
- Loss of gray-white matter differentiation in the basal ganglia

"The presence of these early CT signs have been found to imply a worse prognosis."
These acute ischemic changes can be found on head CT within 24 hours and may be visible within three hours of stroke onset. Pathophysiologically speaking, most of these changes are primarily due to cytotoxic edema.

How often does one find these changes in acute stroke? In the NINDS trial, 31 percent of patients with CT performed within three hours of the onset of stroke had early ischemic changes when the CT scans were carefully reviewed. Specifically, hyperdensity of the MCA, which indicates the presence of thrombus inside the artery lumen, can be seen on CT in 30 to 40 percent of patients with an MCA distribution stroke. The presence of these early CT signs have been found to imply a worse prognosis. In a systematic review in the journal, Radiology, Wardlaw and Mielke found that the presence of these signs was associated with an increased risk of poor functional outcome. Because of this, there is debate about whether early infarction signs should be considered when deciding whether or not to use intravenous thrombolytics for acute ischemic stroke. In the often-cited NINDS trial, patients with early ischemic changes involving more than one-third of the MCA territory had a worse outcome and because of this, currently some clinical guidelines exclude these patients from treatment with thrombolytics.

However, studies that re-analyzed data from the NINDS trial noted that although patients with early ischemic changes on head CT tend to have worse outcomes, they still seemed to benefit from or have no harm done by thrombolytic therapy. Still, the statistical power in the subgroup of patients with early ischemic changes on CT was not big enough to detect differences, so the issue stays controversial.

On top of all of this controversy, it remains that early CT signs of acute ischemia are very subtle and difficult to detect, even by an experienced neuroradiologist, and especially when the changes involve one-third or less of the MCA territory. In one study by Schriger, et al. early infarctions on noncontrast brain CT were missed in more than 50 percent of cases.

In this patient’s case, the signs of acute ischemia were recognized and because the patient was still well within the three hour window for IV tPA. The benefits vs. risks of treatment were discussed with the patient’s family. The patient’s family elected to go ahead with treatment. The patient was endotracheally intubated with rapid sequence induction and with the consultation of stroke neurology, was given IV tPA.

Later the next day, the patient developed persistent bradycardia and hypotension, and she was started on a dopamine infusion. However, the patient’s neurologic exam never improved and it became clear that she was neurologically devastated. A repeat head CT showed an extensive left hemispheric infarction. This, as well as the patient’s poor prognosis, was conveyed to the family, who decided to withdraw life sustaining measures. This was done and the patient peacefully expired two days later.

References
We are the first line of defense for this vulnerable population

**Case**

The patient is a previously healthy 2-year-old male who presents with a one day history of abdominal pain. Per the mother, the patient had been vomiting and was noted to have decreased appetite. Mom also reports that patient’s abdomen appears “swollen.”

Mom reports a history of falling off a bunk bed two months prior. She also reports that the patient fell down a set of stairs the previous month.

The patient was seen on two separate occasions in Mexico. On the 2nd visit, the patient underwent an exploratory surgery and was found to have hemorrhagic pancreatitis. The patient was sent to Tucson for further care.

**Background**

April is National Child Abuse Prevention Month. As I prepare my article for *EM Resident*, I remember my patient. Nonaccidental trauma was a major consideration when he presented, despite repeated denial by his mother. Later in his hospitalization, mom admitted that her boyfriend had repeatedly punched her son in the stomach. I think that this case highlights how important our role is in the defense against child abuse.

Urgent recognition of child abuse is an important role that we have as emergency physicians. It is our job to treat the children we see acutely and also to identify suspected abuse so that subsequent and potentially more serious events do not occur. It is estimated that if an abused child is not identified on first presentation, he or she has a 50 percent chance of further abuse and a 10 percent chance of dying from future events.[3]

Each year, approximately 1.4 million children (3 percent of the pediatric population) are victims of abuse. Greater than 60 percent of these children are less than 1 year old and 80 percent are less than 3 years of age. Of the total cases, 160,000 are considered potentially life-threatening, with an estimated 2,500 deaths per year.[4,5] Of children presenting to the emergency department, the incidence of child abuse is 10 percent. Nonetheless, child abuse is often unidentified and underreported.

Approximately 17 percent of all abuse cases are a form of physical abuse.[6]
most common physical manifestation is bruising, which is often revealed by a thorough physical examination. However, many cases of abuse (such as the case mentioned previously) are not always as obvious to the naked eye. To better identify cases of abuse, one must be cognizant of the “red flags” in the history and physical exam.

**Historical concerns**
- The history is not consistent with the injury presentation.
- The information is vague or lacks significant detail.
- The history is not consistent with developmental milestones.
- The history changes with time and further questioning.
- There is delay in seeking appropriate medical treatment.[3]

**Intraabdominal trauma**
Abdominal injuries from abuse have a mortality rate of nearly 50 percent. Mortality from abdominal trauma is second only to head injury. The most common mechanisms of injury are direct hits, kicks or pressure applied to the abdomen. The liver is the most commonly affected organ followed by the spleen. The right lobe of the liver is the most susceptible to injury due to its location near the ribs and spine. Pancreatic injuries are much less common.[2]

GI perforation can also occur with direct trauma. My patient’s mother gave a history of trauma involving a staircase. A study by Huntimer, et al. in *Pediatrics* in 2000 looked at reported cases of stair trauma and found that there were no described cases of perforation involved with falling down stairs.[2]

**Important signs/symptoms**
- Bruising or other skin manifestations
- Nausea or vomiting
- Abdominal pain or distention
- Back pain
- Poor urine output
- Shock, tachycardia, or hypotension

Early detection of children as potential victims of abuse is critical. First-line treatment is no different than any other patient presenting to our emergency departments. However, early involvement of a multi-disciplinary team including social services, law enforcement, and Child Protective Services is vital for this special patient population.

Emergency physicians are evermore becoming the first line of defense for this vulnerable population. It may not be the most uplifting part of our job, but it remains one of the most important.

**References**
Pediatric Pearls
An evidence-based approach to pediatric orthopedic emergencies

From the May 2009 issue of Pediatric Emergency Medicine Practice. Reprinted with permission. To access your EMRA member benefit of free online access to all EM Practice and Pediatric EM Practice issues, go to www.ebmedicine.net/emra, call 1-800-249-5770, or email ehm@ebmedicine.net.

1. “I didn’t see a fracture on the forearm x-ray.”
Radiographic findings may be subtle in patients with torus (or Salter-Harris I) fractures. In cases with a mechanism consistent with the injury, tenderness at the distal metaphysis (or over the physis) on examination, and no obvious fracture on x-ray, patients should be considered to have a torus (or Salter-Harris I) fracture and should be treated as such.

2. “I thought this patient had a typical torus fracture, but this x-ray doesn’t look like a torus fracture.”
Patients who sustain torus fractures may present with persistent pain for two main reasons. Angulated buckle fractures may be misdiagnosed initially, resulting in prolonged healing and persistent pain. Secondly, bony cysts may develop at the initial fracture site, serving as a nidus for pain and prompting return to the ED.

3. “My patient with a supracondylar fracture has no signs of elevated compartment pressure in the ED, so it is unlikely to develop after discharge.”
Compartment pressure may continue to elevate after discharge as edema continues to increase. Take care to properly immobilize the extremity and to review warning signs with patients and their parents.

4. “I can’t fully reduce the supracondylar fracture. Is close enough acceptable?”
The inability to fully reduce a supracondylar fracture should prompt pediatric orthopedic consultation, including transfer if necessary, as incomplete reduction has been associated with long-term limitations in range of motion.

5. “The patient didn’t look sick. I didn’t think that he could have a septic joint.”
Clinical prediction algorithms may only predict a subset of patients with septic arthritis. Even with three positive predictors, the variables developed by Luhman, et al, only predicted 70% of the cases of septic arthritis.

6. “The mechanism simply wasn’t there for a fracture so I didn’t splint the injury.”
If the child indicates that a joint hurts and there is evidence of trauma, it is better to be overly conservative and splint rather than miss a subtle Salter-Harris type fracture.

7. “I was distracted by the open tib/fib fracture and completely missed the chest contusions.”
Evaluate all victims of multiple trauma using ATLS protocols with attention to the ABCs and primary survey followed by a thorough second-ary survey. Do not be distracted by the most obvious injury.

8. “There was just a small wound over the fracture. I didn’t think that it could be an open fracture.”
Bone ends may pull back through the skin after causing an open fracture. Assume that any wound in proximity to a fracture communicates with the fracture until it is proven not to.
Complications in pregnancy—Part II: Hypertensive disorders of pregnancy and vaginal bleeding

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1. New onset seizures that occur between 48 hours and 4 weeks after delivery should be considered late onset eclampsia until proven otherwise.

2. Although a patient with new onset preeclampsia may look well, there is no way to adequately predict who will progress to eclampsia, thus they all should be considered for admission.

3. If a pregnant patient in the latter half of pregnancy presents with hypertension, a normal urinalysis does not rule out the development of preeclampsia. A 24-hour urine sample is the most reliable means of documenting proteinuria.

4. Do not rely on a normal ultrasound to rule out a placental abruption. An ultrasound is insufficient to diagnosis abruption. Therefore, placental abruption is a clinical diagnosis.

5. Know the capabilities of your obstetric facilities. If you are unable to provide care, stabilize the patient to the ability of the facility and transfer the patient to a facility with capability of providing high-risk obstetric care.

6. In any patient with severe preeclampsia or eclampsia, magnesium is the drug of choice to prevent first time and recurrent seizures.

7. Not all placental abruptions present with vaginal bleeding. A patient with a concealed abruption may present with fetal distress, abdominal pain, and in severe cases maternal shock.

8. Be wary of HELLP syndrome. Patients may appear clinically well, but any patient who presents with preeclampsia in the latter half of pregnancy should be screened with labs to exclude HELLP syndrome.

9. Work with obstetric services. Often critically ill patient will end up in the ED prior to transfer to an obstetric unit. Having clearly defined protocols and expectations will improve care in this critically ill population.

ATTENTION
Senior Residents

Be sure to take advantage of your exclusive discount for Emergency Medicine Practice—available through July 30 only. Plus, Emergency Medicine Practice is offering the limited-edition book “An Evidence-Based Approach To Techniques & Procedures For The 21st Century” with all new subscriptions in June—supplies are limited; subscribe today to receive your free copy!

As you know, EMRA members receive free online access to Emergency Medicine Practice for the duration of your residency through EMRA and EB Medicine’s exclusive partnership.

For a limited time you can now receive the discounted rate of $199 (a $100 savings!) for a full subscription to Emergency Medicine Practice, including 12 monthly evidence-based print issues, 48 CME credits per year, full online access to archived issues and additional CME, and more.

To subscribe call 1-800-249-5770 email ebm@ebmedicine.net or visit http://ebmedicine.net/signup.cfm and enter Promotion Code 9GR9DA.
The EMRA Rep Council worked diligently on the six resolutions that were presented along with voting for the next EMRA President-Elect.

New Orleans Narration

Bourbon Street without EMRA

The EMRA Rep Council worked diligently on the six resolutions that were presented along with voting for the next EMRA President-Elect.

Bourbon Street WITH EMRA... any questions?

FERNE/EMRA Sim Wars

PARTICIPATING RESIDENCY PROGRAMS

Carolina Medical Center
Newark Beth Israel Medical Center
Advocate Christ Medical Center
University of California-San Francisco

WINNERS: University of California (San Francisco)/San Francisco General Hospital Program
(pictured left to right) Caitlin Bilotti, Eric Silman, Jenny Wilson and Susan Promes (Program Director)
Winners
University of Alabama, Birmingham

Left to right: Stephen Tantama, EMRA RRC-EM Rep, Jim McLester, Michael Bindon, and Charles Nunez of University of Alabama at Birmingham, and Emily Merchant, EMRA Academic Affairs Representative.

We’ll take famous physicians for 200...

Ohio State University
Left to right: Hannah Conley, Justin Adkins, and John Tanner.

University of Maryland
Left to right: Azher Merchant, Sanober Shaika, and Adam Friedlander.

Orlando Regional Medical Center
Left to right: Jason Porter, Marcy Rosenberg, and F. Eike Flach.

Louisiana State University – New Orleans
Left to right: Laura Mutter, Rusty Peoples, and Beth Skeins.

Georgetown University
Left to right: B. Elizabeth ("Liz") Delasobera, Scott Osborn, and Matt Borloz.
It’s time to nominate yourself or a colleague for an EMRA Award. Visit the Website for application instructions. Deadline for submission is August 15. Awards will be presented at the EMRA Award Reception during Scientific Assembly in Boston, MA, October 6, 2009.

**Spring Award Winners**

- **ACADEMIC EXCELLENCE AWARD**: Jody Vogel, MD, Denver Health Medical Center, Denver, CO
- **DEDICATION AWARD**: Taku Taira, MD, Bellevue/New York University, New York, NY
- **DR. ALEXANDRA GREENE MEDICAL STUDENT AWARD**: Rachel Levitan, Tulane University School of Medicine, New Orleans, LA
- **JEAN HOLLISTER EMS AWARD**: Kelly Gahan, MD, Carolinas Medical Center, Charlotte, NC
- **LOCAL ACTION GRANT**: Brian Geyer, University of Arizona College of Medicine, Tucson, AZ
- **RESEARCH GRANT**: Hasmig Jinivizian, MD, Drexel University College of Medicine, Philadelphia, PA
- **RESIDENCY COORDINATOR OF THE YEAR**: Melinda Carter, Medical University of South Carolina, Charleston, SC
- **ASSISTANT RESIDENCY DIRECTOR OF THE YEAR**: Susan Stroud, MD, University of Utah, Salt Lake City, UT
- **RESIDENCY DIRECTOR OF THE YEAR**: Andrew Ulrich, MD, FACEP, Boston Medical Center, Boston, MA
- **ROBERT J. DOHERTY, MD, FACEP/EMRA/ACEP TEACHING FELLOWSHIP SCHOLARSHIP**: Britney Anderson, MD, University of Colorado, Denver, CO

**Local Action Grant**

Promoting the involvement of emergency medicine residents in community service and other activities that supports the specialty of emergency medicine.

**EMRA Mentorship Award**

This award recognizes an EMRA alumnus who has demonstrated exceptional service as a mentor for medical students and/or residents in Emergency Medicine. The dedicated recipient is an outstanding role model for future emergency physicians.

**Leadership Excellence Award**

Presented to a resident who has demonstrated outstanding leadership ability.

**EMRA Travel Scholarship to Scientific Assembly**

These $500 scholarships assist a resident or student member of EMRA in the costs associated with attendance of Scientific Assembly. Up to three applicants may be chosen based on financial need and academic pursuit.

For more information, visit www.emra.org.
Silencing the aftermath

I take him out with one solid hit. His curly blonde clown hair lies haphazardly across his face, he is so still. A stab of fear steals my breath and then returns it as he starts to stir. Sliding through the bar pretzels strewn across the floor, he attempts to upright his hefty frame.

My brother grabs my arm and we hurry out of the bar through the back door. I can hear the absurdly fat bartender yelling, “Hey, get your butts back in here, punks!” as the door swings shut.

“Luke, why did you have to get in his face like that?” I ask angrily as I shake out my throbbing hand.

“Who cares, Nick? That Marine right hook was intense!” he says gleefully as he slides into the passenger seat. “Besides,” he adds, “that guy was a jerk.”

Shaking my head annoyed, I start the car. After some awkward adjusting of my knee around the steering wheel, I pull out of the nearly empty lot.

As I steer with my left hand, cradling my right hand to my stomach, I glance cautiously at him. Leg jiggling and popping his knuckles, he stares out of the window and bobs his head in absolutely no sync to the ballad crooning from the radio. He’s gotten taller since I’d left, if that is even possible. He towers over me, but I can see the adolescent worry in his eyes even now. I wonder what he’s thinking about.

He is the youngest in our family. The brooder, he constantly slides into a deep reverie of thought that no amount of nudging or poking can break him out of.

“Where to now, bro?”

“Home, loser. I can’t take you anywhere, you’re a freakin’ disaster.”

“Aw, come on Nick. One more place, just one more. I don’t wanna go home.” He bobs with enthusiasm and creaks the springs in the worn leather bucket seats. Why is he so excited? Ever since he got to high school, he is just a touch too enthusiastic. Why are high schoolers so high on life, anyway? All I remember was that a dog pound was more appealing than high school.

He talks me into coffee and as he walks into the gas stations to grab two cups, I watch him with such an intensely desperate desire to protect him that it physically hurts me to think about it. More pain than my knee has ever given me.

***

I wake up before my alarm goes off and I lie there trying to ignore the rays of light peering innocently through the slots in the blinds. To the light, the stillness of the morning is like any other.

My body knows better. Today marks an anniversary of something more than another sunrise, another day of work and class, or another day of my life. Every muscles aches with rebellion in anticipation for what is to come, but I push it aside.

I step outside the apartment building and start with a clean jog down the empty street. I nod at the bleary-eyed paperboy with gangly arms, he reminds me of Luke. With every jolt of my body making contact with the unforgiving ground, my muscles scream silently in a protest that I ignore. As I turn into the last straightaway of my run, my brain shuts off. I pick up speed, knowing I will regret it later. I hear the click of heels behind me, and my jog becomes a sprint that becomes an escape. Arms pumping, heels flying, sneakers hitting the pavement, I can almost feel my fatigues rustle against the wind my body creates.

I fly, each stride long and even, as I pass mailbox after mailbox until I reach my building and skid to a stop. I don’t even bother to stretch and lever my hands on my knees, gulping the sweet morning air. My knee is already throbbing, feeling the punishing afterthoughts of my emotions.

***

Editor’s note: Here is the final installment of our EM Reflections short story. You can check out the previous installment by checking out the EM Resident archives on the EMRA Website at www.emra.org. Please share your talents with us! Submit articles, stories, artwork or photographs to emresidenteditor.org.

-LB

continued on page 46
like a child’s writing with a thick yellow pencil, the silences leave indentations that cannot be erased.

“Dude.”

Keys jingle in my face and I look up to the irritated face of the Chinese student with thick plastic glasses. He hands me his ID card. I swipe the card and hand it back. As he turns and heads towards an empty computer, a girl steps up and offers me her ID. She looks vaguely familiar with long wavy brown hair, mossy green eyes, and… what is she wearing? The stop sign red shirt with the loudest yellow flowers drowns out any silence as it billows without any wind to provoke it. Her layers of necklaces clink and tinkle like wind chimes and I can faintly make out the rustlings of sound and explosions of color. I am suddenly reminded of a music box my mother used to keep her jewelry in. She would open it, and as she rummaged around I could hear the plinking of a delicate melody unfamiliar to me.

The girl’s lips part and she beings to speak. In that moment, the silence floods back and I cannot hear her. Like that day, the noise of the explosion clouded my senses until all I could hear is the sound of nothing. The quietness of an empty house and the smoke curling from my cigarette as ashes fell to the pristine snow with a hiss. The stillness before the explosion, before the impact lodged the hot metal into my knee and blood spattered soundlessly onto the white hot sand like glass beads spilling and skidding over concrete.

As my eyes focus again on her, I realize her green eyes look at me curiously. I didn’t hear a thing she said. What was I supposed to do now? Finally, I just smile.


As her hips lean into the desk and lips curve into a crooked smile, noises around me register as silence turns into sound.

Alphabet Soup  Benjamin Lawner, DO, University of Maryland

If you are interested in running for a position, please email your CV, a statement of interest (200 words or less), letter of support from your residency director, and photo (jpeg format) to mbyers@emra.org by September 6, 2009. EMRA will post statements and photos received from candidates on the EMRA Website. Nominations from the council floor will be accepted.
From Toxicologic

1. Lithium intoxication is associated with which of the following ECG abnormalities:
   (a) Prolonged QT interval
   (b) A wide QRS complex
   (c) Short QT interval
   (d) A narrow QRS complex

2. GI hemorrhage is characteristic of which toxic ingestion?
   (a) Lithium
   (b) Iron
   (c) Phosphorus
   (d) Arsenic

3. The antidote for iron poisoning is:
   (a) Dimercaprol
   (b) Deferoxamine
   (c) N-acetylcysteine
   (d) Calcius disodium ethydate (EDTA)

4. Severe salicylate poisoning (serum level > 100mg/dL) requires specific treatment to remove the absorbed toxin. The therapeutic modality of choice is:
   (a) N-acetylcysteine
   (b) Acidification of the urine
   (c) Charcoal hemoperfusion
   (d) Hemodialysis

5. The key to the treatment of lithium overdose is in understanding its excretion mechanism. Almost all of it is excreted unchanged in the urine. Reabsorption of the drug occurs primarily at:
   (a) The proximal renal tubule
   (b) The ascending limb of the loop of Henle
   (c) The distal renal tubule
   (d) None of the above

INTERNATIONAL OPPORTUNITY

Four to eight week rotation in Ghana, West Africa (all expenses covered)

PROGRAM PURPOSE
To provide clinical training, process improvement, hands-on bedside teaching, and supervise clinical service delivery, using United States trained emergency physicians at the district level hospital in Ghana.

PROGRAM OBJECTIVES
With the support of GE Foundation and in collaboration with the Ghana Health Service, we have developed a pilot project to provide technical knowledge transfer at Kintampo District Hospital and Mampong District Hospital for 3 years with United States trained Emergency Physicians serving an average of 6 week blocks (4-8 week blocks are also acceptable).

The program has four main components that integrate with other public health programs in Ghana; specifically ‘diagonalizing’ traditional vertical programs within the multidisciplinary approach of emergency medicine within Ghana.

sidHARTe PROGRAM INFORMATION
The sidHARTe Program consists of the following components:

1. Supervising clinical service delivery at either Kintampo District Hospital or Mampong District Hospital
2. Training of health staff which includes: physicians, medical officers, midlevel providers, nurses and midwives (technical knowledge transfer of medical equipment training into practice)
3. Health systems process improvements with the Ghana Health Service and other programs
4. Monitoring & Evaluation (external evaluation)

The program started January 1, 2009 and will continue through December 31, 2011.
The sidHARTe program will cover all program travel related costs incurred during the rotation. Details to follow upon sidHARTe program acceptance.

APPLICATION PROCESS

ELIGIBILITY
Emergency Medicine Resident Physicians must be in their third or fourth year of training at an accredited US program in Emergency Medicine by July 2008. For Emergency Medicine Attending Physicians, those who are board prepared or board certified in EM are welcome to apply.

Please note: All sidHARTe Program participants must be covered by international malpractice insurance during their international health rotation in Ghana. The sidHARTe Program is unable to provide this coverage. All participants are responsible for providing proof of their own international malpractice insurance.

PROCESS
Please email CV immediately with possible travel dates. Physicians are asked to submit the application below, a CV, a cover letter (delineating previous international experience) and two letters of recommendation—one of which must be from a program director if the applicant is an Emergency Medicine Resident Physician.

sidHARTe Program
Columbia University
Mailman School of Public Health
Population and Family Health—Program on Forced Migration and Health
60 Haven Avenue, B-4, Suite 432
New York, NY 10032

It is the applicant’s responsibility to collect all materials and enclose in ONE packet. Incomplete application packets will not be reviewed.

To confirm our receipt of your packet, please contact our program manager Ms. Tanya Hart via email to: sidharte@columbia.edu

APPLICATION (please print clearly and/or circle answers)

Name: ___________________________ City: ___________________________ State: ___________________________ Zip: __________

Home Telephone: ___________________________ Cell Phone: ___________________________ Pager: ___________________________

Country of Citizenship: ___________________________ Email: ___________________________

Current Employment: ___________________________

Residency and Year of Graduation: ___________________________

Current Residents: PGY1 PGY2 PGY3 PGY4 Current Fellows: ___________________________

International Malpractice Insurance Coverage? Yes No Have You Worked Internationally Before? Yes No If Yes in What Capacity: ___________________________

Languages Spoken: ___________________________

Length of Elective: 4 weeks 6 weeks 8 weeks

Date Preferences: First Date Period: ___________________________ Second Date Period: ___________________________ Third Date Period: ___________________________
Residents’ Perspective Call for submissions

**Deadline: July 14, 2009**

The Residents’ Perspective section of *Annals of Emergency Medicine* has been a fixture in the journal since 1993 and provides a peer-reviewed venue for the unique perspective of the resident physician. We publish brief articles authored or co-authored by residents, including data-based reviews of important topics that have not been well covered elsewhere, informative instructional pieces of particular interest to residents, and occasionally, well-referenced position papers. We also welcome small-scale original research articles, especially those that address educational innovations and are presented in the context of a broader discussion of the current literature. We do not publish individual opinion pieces.

We are particularly, though not exclusively, interested in pieces co-authored by residents and expert faculty in the field. If you have a topic you would like to cover and are not able to find a co-author, please contact us, as we may be able to suggest one.

To develop a manuscript for the Residents’ Perspective section, please complete a brief literature review on your chosen topic to ensure that it has not recently been covered elsewhere and then submit a 300-word structured abstract. The abstract should include the following information: the proposed title and authors (not included in the 300 words); a brief background of the topic, including its significance to emergency medicine practice; an outline of the proposed structure of the article; and any pertinent references. If you are interested in submitting a well-referenced original manuscript that is already completed, please contact us by e-mail.

All submitted abstracts should be received by July 14th, 2009. Once abstracts have been approved, final manuscripts should be received within 2 months of approval date.

Submit abstracts by email to Aaron Brown, MD and Suzanne Lippert, MD, MS, Resident Fellows at annalsfellow@acep.org.

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International Emergency Medicine Fellowship

Application Deadline: November 20, 2009

[www.brighamandwomens.org/DIHP/IEM](http://www.brighamandwomens.org/DIHP/IEM)

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Attend the Ohio Chapter ACEP Emergency Medicine Review Course (EMR) for a comprehensive review of emergency medicine, and preparation for certification and the qualifying exam.

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**Fast Facts & Fundamentals:**
- August 16-18, 2009
- More than 15 lectures in rapid review format and self study stimuli review

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Florida, Orlando: THE BEST OPTION FOR PEDIATRIC EMERGENCY MEDICINE PHYSICIANS! Florida Emergency Physicians is interviewing for Peds EM Fellowship or EM/Peds EM Fellowship-Trained positions to fill our Children’s Emergency Medical Department. We are celebrating our 40th year as a stable organization and are proud to announce our Emergency Medicine Residency Program that began in July 2008. Children’s ED sees in excess of 15,000 visits annually. Florida Hospital Orlando is currently building a new ED, and expanding its pediatric inpatient services. Orlando is a growing and rapidly expanding city, with many attractions, proximity to beaches, and ideal easy living! FEP offers a very attractive compensation package with excellent benefits; including an EXCEPTIONAL RELOCATION PACKAGE. Contact Brian A. Nobie, MD, FACEP at 800-268-1318. Send CVs to: Susan Yarcheck, Recruitment Coordinator, E-mail syarcheck@psrinc.net or by fax 407-875-0244.

Iowa, Des Moines: Health System Emergency Physicians (HSEP) is a well-established, physician-owned group. With expected growth, HSEP invites BC/BP Residency-trained EM physicians to join their group in providing continued notable service to Iowa Lutheran Hospital (ILH) and Iowa Methodist Medical Center (IMMC). ILH is a Level III trauma center that houses a 23-bed ED with an annual patient volume of 24,000. Located in downtown Des Moines, IMMC is a Level I trauma center, 15-bed ED with a patient volume of 34,000. Physicians are employees and receive an industry competitive, guaranteed hourly rate, and a comprehensive benefits package including a 401(k) and profit sharing retirement program, and malpractice with tail coverage. Physicians provide coverage daily. Enjoy numerous outdoor activities, or college sports for your enjoyment. Iowa is well known for its quality of affordable public education, and takes pride in the academic success of our students. Contact Teri Geen at (800) 346-0747 ext. 3168 or email tgeen@psrinc.net.

Maryland, Baltimore: The Department of Emergency Medicine at the University of Maryland is recruiting full-time academic physicians for its downtown Baltimore community-affiliated facilities. Candidates must be BC/BP in emergency medicine and will be hired at the rank of instructor or assistant professor. Faculty members staff the Emergency Departments at University of Maryland Medical Center, the Baltimore VA, Mercy Medical Center, Maryland General Hospital, and Bon Secours Hospital. Our physicians are required to provide clinical coverage and participate in the Department’s educational programs as well as research initiatives. Please forward your CV to Brian J. Browne, MD, Chairman, in care of Susan Kamen, MD, Chairman, in care of Susan Kamen.

Indiana, Evansville: Level I Trauma Center sees 54,000 ED pts./yr. St. Mary’s Medical Center is a 490-bed tertiary care center serving southwestern Indiana, southern Illinois and western Kentucky. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax 330-493-8677.
Michigan, Battle Creek: BC Emergency Medicine physician sought for democratic group in 50,000 volume ED. Excellent package offers shareholder status at one year with no buy-in! Benefits include pension, family medical plan, CME, incentive income, malpractice, more. Stable group with outstanding physician retention record. Contact Kim Avalos Rooney, Premier Health Care Services, (800) 726-3627, ext. 3674, krooney@phcsday.com, fax (937) 312-3675.

Michigan, Grand Blanc: FT/PT, EM, BC/BP physicians for two 20,000 volume satellite ED’s and/or FT/PT, EM, BC/BP physicians for 64,000 volume main ED. Genesys Regional Medical Center is a beautiful 400 bed state-of-the-art hospital built in 1997 with a 26-position EM Residency and most specialty residencies. Our EM physician corporation offers employee status with full benefits, including CME allowance, dues coverage, first year Profit Sharing, malpractice coverage, and very competitive hourly compensation. Applicants please call or send CV to: Michael J. Jule, DO, FACEP, Director Emergency Services, One Genesys Parkway, Grand Blanc, Michigan 48439-1477, or email to mjule@genesys.org, or call (810) 606-5951.

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Nebraska, Omaha: Democratic group seeks BP/BC EM physician. This is truly a state-of-the-art hospital. ED has an annual census of 24,000 with coverage of 24-32 physician hours plus 12 hours MLP coverage daily. Enjoy employer-funded pension, additional incentive, family medical plan, shareholder opportunity, more. Contact Kim Avalos Rooney, Premier Health Care Services, (800) 726-3627, ext.3674, krooney@phcsday.com, fax (937) 312-3675.

New York, Kingston: Benedictine Hospital is a respected 222-bed community hospital situated in the Hudson River Valley in the foothills of the Catskill Mountains. Full service facility, active EMS service and a helipad on the grounds. 24,000 ED pts./yr. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax CV to 330-493-8677.

North Carolina, outside Charlotte: Gaston Memorial Hospital - Join a stable, democratic group of young, innovative BC and EM residency trained doctors at this prestigious location just outside Charlotte, NC. Gaston Memorial Hospital treats 90,000 ED pts./yr. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax CV to 330-493-8677.

North Carolina, Charlotte: PEMA, a local dynamic democratic group practicing for 25+ years seeks BC/BP EM physicians. PEMA is comprised of young, progressive, and innovative providers.

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North Carolina, Kinston: Located in the center of eastern North Carolina, Kinston is less than 60 miles to the east are some of the most beautiful beaches of the Carolina coast and 35 miles from Greenville. 200-bed full-service community hospital treats 39,000 ED pts./yr. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD, (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax 330-493-8677.

North Carolina, Morehead City: Located in a sound-side seaport, Morehead City is a thriving, growing community. New 21,000 sq ft ED sees 37,000 ED pts./yr. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax 330-493-8677.

North Carolina, New Bern: Respected 313-bed regional medical center located at the intersection of the Trent and Neuse Rivers just off the central coast. 65,000
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Contact: Ludi Jagminas, M.D., Chief, Emergency Medicine, Memorial Hospital of Rhode Island, 111 Brewster Street, Pawtucket, RI 02860; Fax: (401) 729-3112 or call (401) 729-2419. An Equal Opportunity Employer.
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Please forward CV to:

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4615 Oleander Drive, Suite 201-A
Myrtle Beach, SC 29577
or fax to 843-497-6601
or email kdehart@carolina-health.com.

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Ohio, Multi Area: Resident Moonlighting Opportunities

- Democratic group has moonlighting opportunities for EM Residents in several Ohio locations including: Northern Cincinnati suburb; North Dayton, Southwest of Columbus, and Lima area. These opportunities provide appealing hourly compensation & malpractice coverage; and environments with optimal physician/patient ratios. For additional information contact Rachel Klockow, Premier Health Care Services (800) 406-8118, rklockow@phcsday.com, fax (954) 986-8820.

Ohio, Barberton: Barberton Citizens Hospital is a full-service community hospital in southern suburban Akron with 38,000 ED visits/yr. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax 330-493-8677.

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Ohio, Cambridge: Southeastern Ohio Regional Medical Center is a 177-bed, full-service medical center and Level III Trauma Center treating 34,000 ED pts./yr. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax 330-493-8677. 

Ohio, Cincinnati: Start your Emergency Medicine career on the right path. As an equity ownership group Premier Health Care Services provides opportunity for shareholder status after just one year with no buy-in. Choose from three locations within appealing northern Cincinnati suburbs. Premier offers the ideal balance of a shareholder model with the strength of a contract group. Our 22-year old group remains employee owned and managed; and provides financial stability from its continued, well-planned growth. Premier’s equity model means full participation for every physician. Dedicated to the advancement of the specialty, Premier fosters innovation. Our Risk Management program is nationally lauded and our educational contributions have also received acclaim; Premier physicians contribute to the EM community within ACEP, AAEM & EDPMA. Excellent package also includes employer funded pension, family medical plan, CME, and more. Contact Kim Rooney, (800) 726, 3627, ext. 3674, e-mail: krooney@phcsday.com fax (937) 312-3675. 

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Ohio, Dayton Area: Excellent opportunities with Democratic group for EM physicians in appealing locations north of Dayton. Locations include 18,000 volume ED in St Mary’s; 29,000 volume ED in Sidney, and 27,000 volume ED in Greenville. Work within an established, stable group with optimal patient/physician ratios and acclaimed risk management program. Excellent model and benefits providing malpractice, employer-funded pension, family medical plan, CME, incentive income, plus shareholder opportunity at one year with no buy-in! Contact Michele Wilkerson, Premier Health Care Services, (800) 726-3627, ext 3672, mwilkerson@phcsday.com, fax (937) 312-3673.

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Ohio, Lodi: Fully accredited 30-bed hospital with acute and skilled care facilities is part of the Akron General Health System. Brand new 12-bed ED has 12 private rooms including cardiac and trauma. 10,000 ED pts./yr. with 12 and 24 hr. shifts. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD (careers@emp.com), Emergency Medicine Physicians, 4535 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax 330-493-8677.

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**Pennsylvania, York:** Memorial Hospital in York is host to a respected osteopathic EM residency program and sees 41,000 annual ED visits. Outstanding partnership opportunity includes equal profit sharing, equity ownership, funded pension, open books, full benefits and more. Contact Steve Rudis, MD, (careers@emp.com), Emergency Medicine Physicians, 4355 Dressler Rd, NW, Canton, OH 44718. 800-828-0898 or fax 330-493-8677. ■

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**West Virginia, Charleston & Bluefield:** EM Physician opportunities within democratic group in Charleston and Bluefield, WV. Charleston opportunity is within three-hospital system with 100,000 annual visits. This facility includes a Level I trauma center and numerous allopathic & osteopathic residency programs including EM. Bluefield opportunity is a 36,000 volume ED located on WV/VA border. This scenic location neighbors the state’s highest mountain. Enjoy working within an established, stable group with optimal patient/physician ratios and acclaimed risk management program. Excellent model and benefits providing malpractice, employer-funded pension, family medical plan, CME, incentive income, plus shareholder opportunity at one year with no buy-in! Contact Rachel Klockow, Premier Health Care Services, (800) 406-8118, rklockow@phcsday.com, fax (954) 986-8820. ■
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