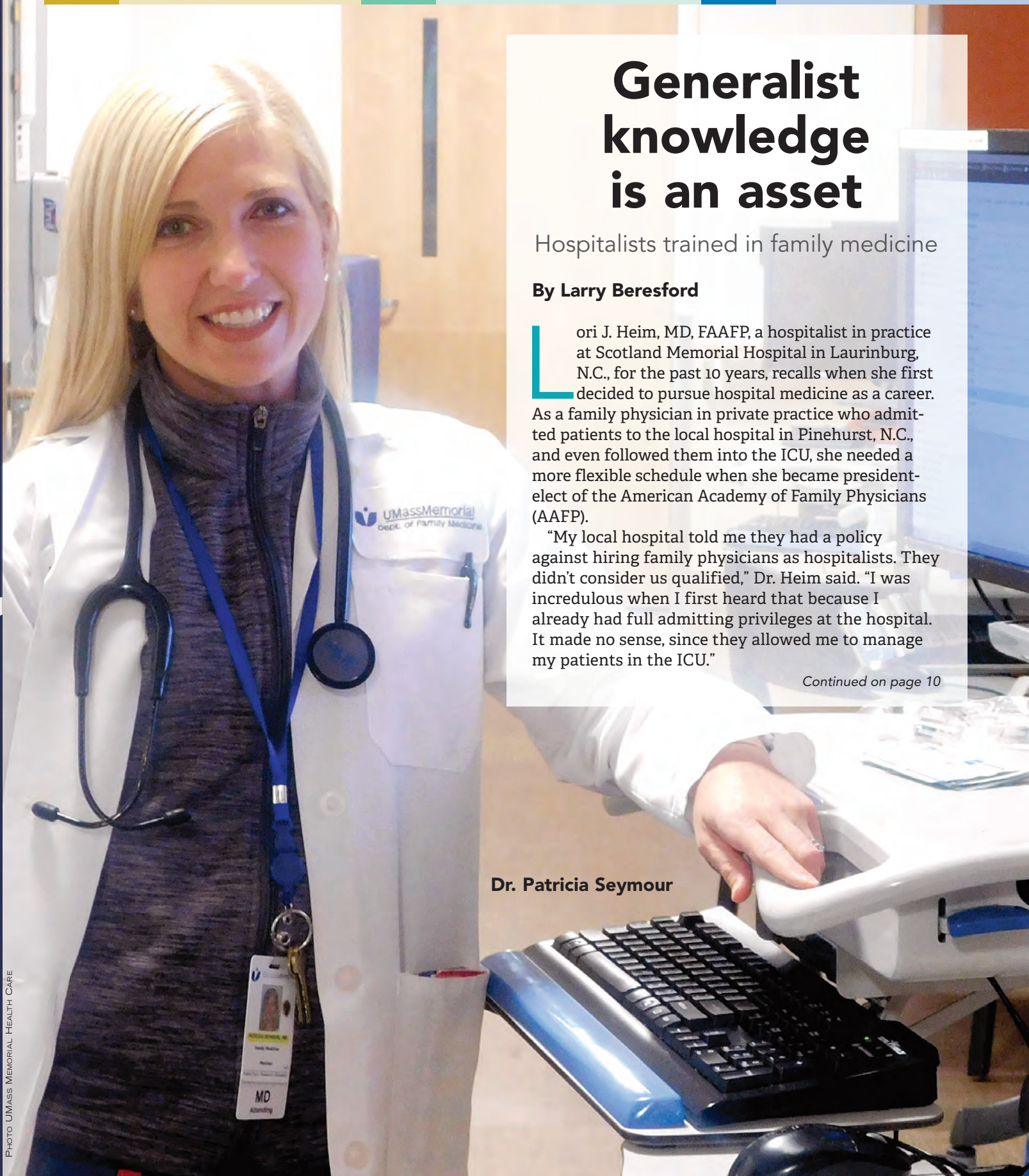


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Dr. Patricia Seymour

Generalist knowledge is an asset

Hospitalists trained in family medicine

By Larry Beresford

Lori J. Heim, MD, FAAFP, a hospitalist in practice at Scotland Memorial Hospital in Laurinburg, N.C., for the past 10 years, recalls when she first decided to pursue hospital medicine as a career. As a family physician in private practice who admitted patients to the local hospital in Pinehurst, N.C., and even followed them into the ICU, she needed a more flexible schedule when she became president-elect of the American Academy of Family Physicians (AAFP).

"My local hospital told me they had a policy against hiring family physicians as hospitalists. They didn't consider us qualified," Dr. Heim said. "I was incredulous when I first heard that because I already had full admitting privileges at the hospital. It made no sense, since they allowed me to manage my patients in the ICU."

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A staffing backup system is essential.

LEADERSHIP

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Believe it or not, leadership and fun go together.

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A third of serious malpractice claims due to diagnostic error

By Alicia Gallegos

MDedge News

A third of medical malpractice cases associated with patient death or permanent disability result from diagnostic errors by health providers, an analysis finds.

Lead investigator David E. Newman-Toker, MD, PhD, of Johns Hopkins University, Baltimore, and colleagues reviewed malpractice claims during 2006-2015 from medical liability insurer CRICO's Comparative Benchmarking System database, which represents 30% of all malpractice claims in the United States.

Investigators sought to identify diseases accounting for the majority of serious diagnosis-related harms associated with the claims. Of 55,377 closed claims, researchers identified 11,592 diagnostic error cases, of which 7,379 resulted in high-severity harm.

Of the high-severity claims, 34% stemmed from inaccurate or delayed diagnosis (Diagnosis. 2019 Jul 11. doi: org/10.1515/dx-2019-0019).

The majority of diagnostic mistakes (74%) causing the most severe harm were attributable to cancer (38%), vascular events (23%), and infection (14%). These cases resulted in nearly \$2 billion in malpractice payouts over a 10-year period, investigators found.

Clinical judgment factors were the primary reason behind the alleged errors, specifically: failure or delay in ordering a diagnostic test, narrow diagnostic focus with failure to establish a differential diagnosis, failure to appreciate and reconcile relevant symptoms or test results, and failure or delay in obtaining consultation or referral and misinterpretation of diagnostic studies.

"Diagnostic errors are the most common, the most catastrophic, and the most costly of medical errors," Dr. Newman-Toker said. "We know that this is a major problem, at an individual, personal level, but also at a societal level and something we really have to take action toward fixing."

This study breaks new ground by drilling into the major diseases most

commonly associated with diagnostic errors, Dr. Newman-Toker said. In the cancer category, the most common cancers linked to severe harm were lung, breast, colorectal, prostate, and melanoma. In the vascular category, the most common conditions were stroke; myocardial infarction; venous thromboem-



Dr. Newman-Toker

bolism; aortic aneurysm and dissection; and arterial thromboembolism. In the area of infection, sepsis; meningitis and encephalitis; spinal abscess; pneumonia; and endocarditis were the most common infections identified.

The findings provide a starting point to make improvements in the area of medical errors, said Dr. Newman-Toker, president of the Society to Improve Diagnosis in Medicine, an organization that aims to improve diagnosis and eliminate harm from diagnostic error.

"Although diagnostic errors happen everywhere, across all of medicine in every discipline with every disease, we might be able to take a big chunk out of this problem if we save a lot of lives and prevent a lot disability and if we focus some energy on tackling these problems," he said. "It at least gives us a starting place and a roadmap for how to move the ball forward in this regard."

The Society to Improve Diagnosis in Medicine has called on Congress to invest more funding into research to address diagnostic errors. Society CEO and cofounder Paul L. Epner noted that the 2019 House appropriations bill proposes not less than \$4 million for diagnostic safety and quality research, which is up from \$2 million last year.

"It's a small step, but in the right direction," Mr. Epner said. "[However,] the federal investment in research remains trivially small in relation to the public burden. That's why we urge Congress to commit to research funding levels proportionate to the societal cost, in both human lives and in dollars."

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Am I still a hospitalist?

HM as a force for change

**By Chad T. Whelan, MD,
MHSA, SFHM**

I wear a suit every day to work. I count the time between shifts in months, not days. Rather than looking for subtle diagnostic clues hidden in clinical information, I find myself up to my elbows in performance and financial data. Instead of meetings complicated by challenging family dynamics, I spend my time calming the waters between clinical departments that each feel slighted.

And yet, when people ask me what I do, I do not say I am a health system CEO. Rather, I am a hospitalist. I say it, not out of habit, but with pride and clear intention. Almost 20 years ago, I had to explain to my parents what a hospitalist was as I made the transition from primary care doctor to hospitalist. I told them that hospitalists take care of sick people who are in the hospital, but also are charged with making the hospital a better place to take care of people. I hope that, in some small way, in every role I have had over the past 20 years as a hospitalist, I have been able to do that.

While the small changes we can all make every day are important, massive changes to health care,

hospitals, and providers are coming. The forces driving these changes are manifold, complex, and powerful. Individual hospitalists, hospital groups, and hospitals will be challenged to keep up with responding to these changes. I hope, though, that our field, hospital medicine, will not be sitting there, waiting for the changes to come, but will instead be one of the forces for change.

I also believe that hospital medicine and health care delivery systems should drive the change in a coordinated and collaborative partnership. A partnership not built on self-advocacy but one in which we remember why we exist – to take care of people. A force for change that preserves the essential, evolves what needs improvement, and revolutionizes the archaic.

Partnerships between hospitalist groups and health care administration will always face the day-to-day challenges of balancing the need for resources with the ability to provide them, agreeing on how to measure and assess quality, and aligning rewards with priorities. However, by working together in venues that allow us to think beyond the day-to-day issues, we in hospital medicine will be leaders in the change that is coming. I believe that today the

Society for Hospital Medicine must be one of those venues. Through its committees, meetings, advocacy, publications, and most importantly, members, SHM will continue to shape the future of care delivery in this country and beyond.

SHM has been my professional home for almost 20 years, helping me think about how to make the hospital a better place to take care of people. Recent examples of SHM and its members partnering in this area include advocacy work to improve alternative payment models, such as Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), as well as educational efforts for its members on how to navigate the current rules around MACRA.

For many years, SHM has been the leader in professional organizations for leading the way on quality improvement. Through the Center for Quality Improvement, SHM not only offers robust educational tools to better enable members to lead efforts at their home institutions but also has led multi-institutional efforts to reduce harm that have been recognized nationally for their impact.

As we move further down the path from volume to value toward population health, the SHM Board



Dr. Whelan is CEO of Banner–University Medical Center Tucson (Ariz.) and a member of the SHM Board of Directors.

will be sure that the society continues to be a leader for its members and the health system at large as we face these changes. We have the opportunity in front of us to collectively embrace and create the changes coming toward us with that shared purpose of making wherever it is that we care for people better places to provide that care. How could one not be proud to say, with intent, “I am a hospitalist,” regardless of what it is that brings each of us to SHM.

Maximize your leadership in academic hospital medicine

AHA Level 2 course now available

By Nate O’Dorisio, MD

Over the past 2 decades, hospital medicine has grown from a nascent collection of hospitalists to one of the fastest growing specialties, with more than 60,000 active practitioners today.

Ten years ago, the need for mentoring and growth of a new generation of young academic faculty led to the development of the first Academic Hospitalist Academy (AHA) through the coordinated efforts of the Society of Hospital Medicine, the Society of General Internal Medicine, and the Association of Clinical Leaders of General Internal Medicine.

As modern medicine moves at an increasing pace, the intersection of patient care, research, and education has opened further opportunities for fostering the expertise of hospital medicine practitioners. The next level of training is now available with the advent of AHA’s Level 2 course.

Ever wonder why the new clinical service you’ve designed to improve physician and pa-

tient efficiency isn’t functioning like it did in the beginning? Patients are staying longer in the hospital, and physicians are working harder.



Dr. O’Dorisio

The principles of change management, personal leadership styles, and adult learning will be covered in the AHA Level 2 course. How do I get my project funded and then what do I do with the results? Keys to negotiating for time and resources as well as the skills to write and disseminate your work are integrated into the curriculum.

Participants will be engaged in an interactive course designed around the challenges of practicing and leading in an academic environment. AHA Level 2 aims to help attendees – regardless of their areas of interest – identify and acquire the skills necessary to advance their career, describe the business and cultural landscape of academic health systems, and learn how to leverage that knowledge; as well as to list resources and tech-

niques to continue to further build their skills, and identify and pursue their unique scholarly niche.

Based on the success of AHA’s Level 1 course and the feedback from the almost 1,000 participants who have attended, AHA Level 2 is a 2.5-day course that will allow for the exchange of ideas and skills from nationally regarded faculty and fellow attendees. Through plenary sessions, workshops, small groups, and networking opportunities, attendees will be immersed in the realm of modern academic hospital medicine. The new course is offered in parallel with AHA Level 1 at the Inverness Resort, outside of Denver, on Sept. 10-12, 2019.

The course will leave attendees with an individualized career plan and enhance their area of expertise. The lessons learned and shared will allow participants to return to their institutions and continue to lead in the areas of patient care, financial resourcefulness, and the education of current and future generations of hospital medicine specialists.

Dr. O’Dorisio is a Med-Peds hospitalist at the Ohio State University, Columbus.

Survey Insights

To be, or not to be ... on backup?

A staffing backup system is essential

By Romil Chadha, MD, MPH, SFHM; and Mara Babb, BA

It was late 2011. We were a practice of around 20 physicians, and just starting to integrate advanced practice providers into our practice. Our average daily census was about 100 patients and slightly more than 50% of our services were resident services. My boss, colleague, friend, and mentor – Charles “Chuck” Sargent, MD, and I were on service together early one Saturday morning; Chuck

the end Chuck and I took care of our colleague’s patients. Yes, it was an exhausting few days, but illness and family needs do not come announced. Now, close to a decade later, we are a practice of 70 physicians and 16 advanced practice providers, our average daily census is about 270 patients, and we have two backup physicians every day – known as Jeopardy-1 and Jeopardy-2. Paternity leave, maternity leave, minor illness, minor trauma, surgery, and family needs are common for our practice. We considered

Hospital Medicine’s *State of Hospital Medicine Reports (SoHM)* have been providing data about staffing backup systems every other year. Backup systems come in three flavors. The first system is no formal backup, which means the leaders of the program scramble for coverage every time there is a need. The second is a voluntary backup system in which clinicians volunteer to be on a backup schedule, and the third is a mandatory system in which all or most clinicians are required to be on the backup schedule.

The cumulative data reported in the 2014, 2016, and 2018 *SoHM* for hospital medicine groups serving adults only, children only, and both adults and children (weighted for number of groups reporting), suggests that 48.3% of respondent practices had no formal backup system, 31.7% had a voluntary system, and 20% had a mandatory backup system.

When we look at different populations served, the trend of “no formal backup system” responses is in decline. The 2014, 2016, and 2018 *SoHM* reports for hospital medicine groups serving adults, children, and both adults and children, reinforce such trends. The *SoHM* 2018 report shows 65.6% of hospital medicine groups serving children, 41.6% of groups serving adults, and only 25% of groups serving both adults and children have “no formal backup system.” Our medicine-pediatrics colleagues seem to be leading the trend and have already deduced that, for a solid practice, a backup system is a necessity.

It is also important to see the



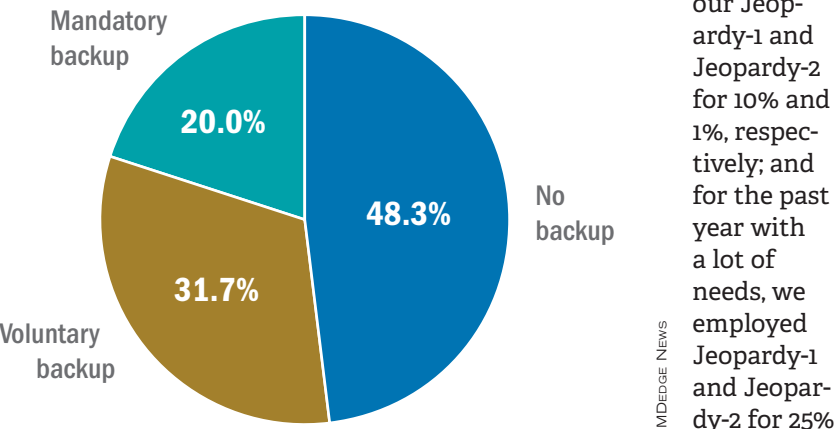
Dr. Chadha



Ms. Babb

Dr. Chadha is interim division chief in the division of hospital medicine at the University of Kentucky HealthCare in Lexington. He actively leads efforts of recruiting, scheduling, practice analysis, and operation of the group. He is a first-time member of the SHM Practice Analysis Committee. Ms. Babb is administrative support associate in the division of hospital medicine at University of Kentucky HealthCare.

The three flavors of staffing backup systems

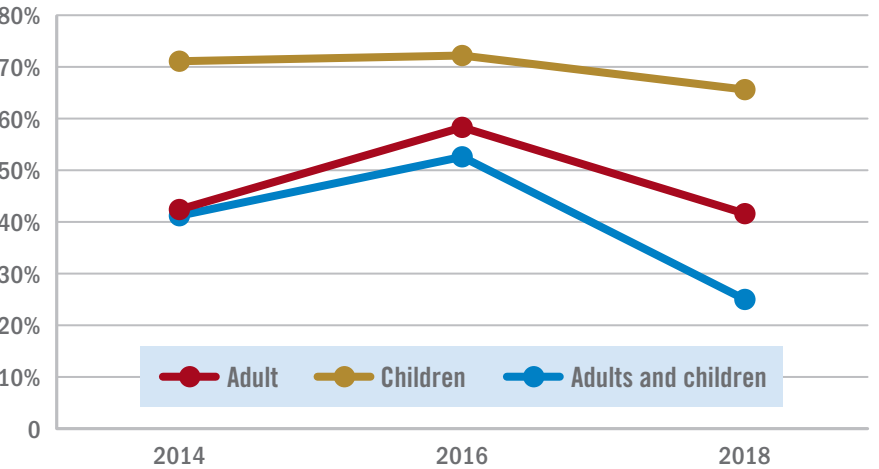


Note: Data cover groups serving adults, children, and both adults and children. Source: 2014, 2016, and 2018 *State of Hospital Medicine Reports*

gets a phone call that one of our colleagues was ill. With just 10 physicians working and 10 off, it was an ordeal for Chuck to call all 10 colleagues. Unlike most times, no one could come to moonlight that day. In

system is a necessary tool for almost every practice. Not having a formal backup system doesn’t mean you don’t need one or you don’t have one – it is just called “no formal backup system.” The Society of

Groups with no formal backup systems



Note: Data cover groups serving adults, children, and both adults and children. Source: 2014, 2016, and 2018 *State of Hospital Medicine Reports*

Prevalence ranking of compensation models for backup systems

First	Second	Third	Fourth
58.7%	26.4%	11.3%	3.6%
No additional compensation for being on the backup schedule but additional compensation if called into work.	No additional compensation associated with the backup plan.	Additional compensation for being on the backup schedule and additional compensation if called into work.	Additional compensation for being on the backup schedule but no additional compensation if called into work.

Note: Percentages are for groups serving adults only, but this pattern was seen almost every year, in most practice populations, and all subcategories. Source: 2018 *State of Hospital Medicine Report*

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The Future Hospitalist

The changing landscape of medical education

A brave new world

By Brian Kwan, MD, FHM;
Meghan Sebasky, MD, FHM; and
Elaine A. Muchmore, MD

It's Monday morning, and your intern is presenting an overnight admission. Lost in the details of his disorganized introduction, your mind wanders. "Why doesn't this intern know how to present? When I trained, all those admissions during long sleepless nights really taught me to do this right." But can we equate hours worked with competency achieved? And if not, what is the alternative? This article introduces some major changes in medical education and their implications for hospitalists.

Most hospitalists trained in an educational system influenced by Sir William Osler. In the early 1900s, he introduced the natural method of teaching, positing that student exposure to patients and experience over time ensured that physicians in training would become competent doctors.¹ His influence led to the current structure of medical education, which includes conventional third-year clerkships and time-limited rotations (such as a 2-week nephrology block).

While familiarity may be comforting, there are signs our current model of medical education is inefficient, inadequate, and obsolete.

For one, the traditional system is failing to adequately prepare physicians to provide safe and complex care. Reports, such as the Institute of Medicine's (IOM) "To Err is Human,"² describe a high rate of preventable errors, highlighting considerable room for improvement in training the next generation of physicians.^{3,4}

Meanwhile, trainees are still largely being deemed ready for the workforce by length of training completed (for example, completion of 4-year medical school) rather than a skill set distinctly achieved. Our system leaves little flexibility to individualize learner goals, which is significant given some students and residents take shorter or longer periods of time to achieve proficiency. In addition, learner outcomes can be quite variable, as we have all experienced.

Even our methods of assessment may not adequately evaluate trainees' skill sets. For example, most clerkships still rely heavily on the shelf exam⁵ as a surrogate for medical knowledge. As such, learners may conclude that testing perfor-

mance trumps development of other professional skills.⁶ Efforts are being made to revamp evaluation systems to reflect mastery (such as Entrustable Professional Activities, or EPAs) toward competencies.⁷ Still, many institutions continue to rely on faculty evaluations that often reflect interpersonal dynamics rather than true critical thinking skills.⁶

Recognizing the above limitations, many educators have called for changing to outcome-based, or competency-based, training (CBME). CBME targets attainment of skills in performing concrete critical clinical activities,⁸ such as identifying unstable patients, providing initial management, and obtaining help. To be successful, supervisors must directly observe trainees, assess demonstrated skills, and provide feedback about progress.

Unfortunately, this considerable investment of time and effort is often poorly compensated. Additionally, unanswered questions remain. For example, how will residency programs continue to challenge physicians deemed "competent" in a required skill? What happens when a trainee is deficient and not appropriately progressing in a required skill? Is flexible training time part of the future of medical education? While CBME appears to be a more effective method of education, questions like these must be addressed during implementation.

Beyond the fact that hours worked cannot be used as a surrogate for competency, excessive unregulated work hours can be detrimental to learners, their supervisors, and patients. In 2003, the Accreditation Council for Graduate Medical Education (ACGME) implemented a major change in medical education: duty-hour limitations. The premise that sleep-deprived providers are more prone to error is well established. However, controversy remains as to whether these regulations translate into improved patient care and provider well-being. Studies published following the ACGME change demonstrate increasing burnout among physicians,⁹⁻¹¹ which has led some educators to explore the potential relationship between burnout and duty-hour restrictions.

The recent "iCOMPARE" trial, which compared internal medicine (IM) residencies with "standard duty-hour" policies to those with



Dr. Kwan



Dr. Sebasky



Dr. Muchmore

Dr. Kwan is a hospitalist at the Veterans Affairs San Diego Healthcare System (VASDHS) and an associate professor at the University of California, San Diego, in the division of hospital medicine. He is the chair of the SHM Physicians in Training committee. Dr. Sebasky is an associate clinical professor at UCSD in the division of hospital medicine. Dr. Muchmore is a hematologist/oncologist and professor of clinical medicine in the department of medicine at UCSD and associate chief of staff for education at VASDHS.

"flexible" policies (that is, they did not specify limits on shift length or mandatory time off between shifts), supported a lack of correlation between hours worked and burnout.¹² Researchers administered the Maslach Burnout Inventory to all participants.¹³ While those in the "flexible hours" arm reported greater dissatisfaction with the effect of the program on their personal lives, both groups reported significant burnout, with interns recording high scores in emotional exhaustion (79% in flexible programs vs. 72% in standard), depersonalization (75% vs. 72%), and lack of personal accomplishment (71% vs. 69%).

Disturbingly, these scores were not restricted to interns but were present in all residents. The good news? Limiting duty hours does not cause burnout. On the other hand, it does not protect from burnout. Trainee burnout appears to transcend the issue of hours worked. Clearly, we need to address the systemic flaws in our work environments that contribute to this epidemic. Nationwide, educators and organizations are continuing to define causes of burnout and test

Continued on following page

Continued from page 4

schedule, but additional compensation was provided when called into work." This kind of arrangement would be easiest to negotiate when the hospitalist and the employer sit across a table. There is nothing at risk for the employer when there isn't a need, or when there is a need to fill a shift.

The least common method was

"additional compensation for being on the backup schedule, but no additional compensation if called into work." From employers' perspectives, this is an extra expense and is not ideal for the hospitalist either. In the middle of the pack were "no additional compensation associated with the backup plan" (the second most common model), while the third most common model was

"additional compensation for being on the backup schedule, as well as additional compensation if called into work."

Once you have seen one hospital medicine practice, you have seen one hospital medicine practice. There are different needs for every group, and the backup system – as well its compensation model – has to be designed for it. Thankfully,

the SoHM reports reveal the patterns and trends so that we don't have to reinvent the wheel. For our practice, we decreased a week of clinical service for 2 weeks a year of backup. Every time we activate our backup system, the person coming in receives extra compensation or a similar shift off. In the long run, our backup system didn't kill us, but rather made us stronger as a group.

Continued from previous page

interventions to improve wellness.

A final front of change in medical education worth mentioning is the use of the electronic medical record. While the EMR has improved many aspects of patient care, its implementation is associated with decreased time spent with patients and parallels the rise in burnout. Another unforeseen consequence has been its disruptive impact on medical student documentation. A national survey of clerkship directors found that, while 64% of programs allowed students to use the EMR, only two-thirds of those programs permitted students to document electronically.¹⁴

Many institutions limit student access because of either liability concerns or the fact that student notes cannot be used to support medical billing. Concerning workarounds among preceptors, such as logging in students under their own credentials to write notes, have been identified.¹⁵ Yet medical students need to learn how to document a clinical encounter and maintain medical records.^{7,16} Authoring notes engages students, promotes a sense of patient ownership, and empowers them to feel like essential team members. Participating in the EMR also allows for critical feedback and skill development.

In 2016, the Society of Hospital Medicine joined several major internal medicine organizations in asking the federal government to reconsider guidelines prohibiting attendings from referring to medical student notes. In February 2018, the Centers for Medicare & Medicaid Services (CMS) revised its student documentation guidelines (see Box A), allowing teaching physicians to use all student documentation (not just Review of Systems, Family History, and Social History) for billable services.

While the guidelines officially went into ef-

Box A

"Students may document services in the medical record. However, the teaching physician must verify in the medical record all student documentation or findings, including history, physical exam, and/or medical decision making. The teaching physician must personally perform (or re-perform) the physical exam and medical decision making activities of the E/M service being billed, but may verify any student documentation of them in the medical record, rather than re-documenting this work."

fect in March 2018, many institutions are still fine-tuning their implementation, in part because of nonspecific policy language. For instance, if a student composes a note and a resident edits and signs it, can the attending physician simply cosign the resident note? Also, once a student has presented a case, can the attending see the patient and verify findings without the student present?

Despite the above challenges, the revision to CMS guidelines is a significant "win" and can potentially reduce the documentation burden on teaching physicians. With more oversight of their notes, the next generation of students will be encouraged to produce accurate, high-quality documentation.

In summary, these changes in the way we define competency, in duty hours and in the use of the EMR, demonstrate that medical education is continuously improving via robust critique and educator engagement in outcomes. We are fortunate to train in a system that respects the scientific method and utilizes data and critical events to drive important changes in practice. Understanding these changes might help hospitalists

relate to the backgrounds and needs of learners. And who knows – maybe next time that intern will do a better job presenting!

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Patients concerned about clinician burnout

By Richard Franki

MDedge News

Almost three-quarters of Americans are concerned about burnout among health care professionals, according to the American Society of Health-System Pharmacists.

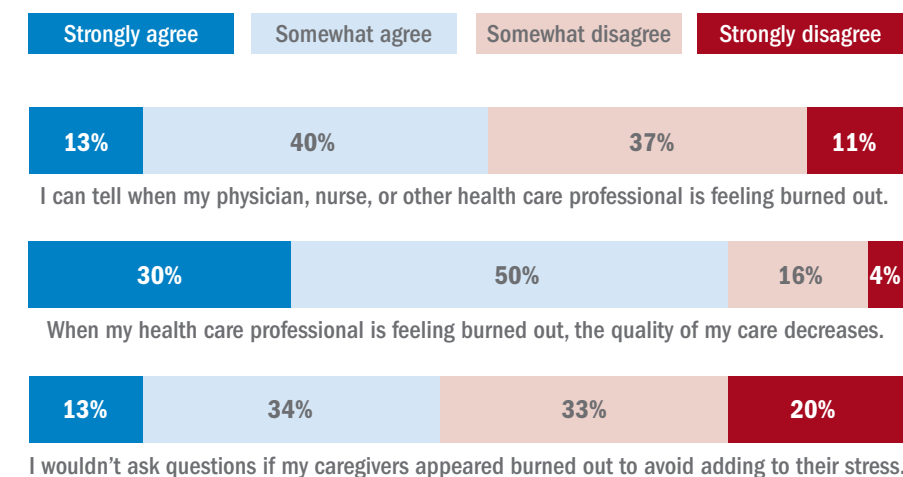
The public is aware "that burnout among pharmacists, physicians, nurses, and other professionals can lead to impaired attention and decreased functioning that threatens to cause medical errors and reduce safety," the ASHP said when it released data from a survey conducted May 28-30, 2019, by the Harris Poll.

Those data show that 23% of respondents were very concerned and 51% were somewhat concerned about burnout among health care providers. Just over half (53%) of the 2,007 adults involved said that

they could tell when a provider was burned out, suggesting that health care professionals "may be

conveying signs of burnout to their patients without knowing it," the society noted.

Patients surveyed about burnout in health care professionals



Note: Based on data for 2,007 U.S. adults who were polled online May 28-30, 2019.

Source: American Society of Health-System Pharmacists

A majority of respondents (80%) felt that the quality of their care was affected when their physician, nurse, pharmacist, or other health care professional was burned out, and almost half (47%) said that they would avoid asking questions if their provider appeared burned out because they wouldn't want to add to that person's stress, the ASHP said.

"A healthy and thriving clinician workforce is essential to ensure optimal patient health outcomes and safety," said Paul W. Abramowitz, PharmD, chief executive officer of the ASHP. "Within the healthcare industry, we are working to help build a culture of resilience and well-being to ensure that no patient or clinician is harmed due to burnout; but it takes a concerted effort from all entities involved – providers and healthcare organizations."

PTSD in the inpatient setting

A problem hiding in plain sight

By Kathlyn Fletcher, MD; Brian Kwan, MD, FHM; and Scott Steinbach, MD

“I need to get out of here! I haven’t gotten any sleep, my medications never come on time, and I feel like a pincushion. I am leaving NOW!” The commotion interrupts your intern’s meticulous presentation as your team quickly files into the room. You find a disheveled, visibly frustrated man tearing at his intravenous line, surrounded by his half-eaten breakfast and multiple urinals filled to various levels. His IV pump is beeping, and telemetry wires hang haphazardly off his chest.

Mr. Smith had been admitted for a heart failure exacerbation. You’d been making steady progress with diuresis but are now faced with a likely discharge against medical advice if you can’t defuse the situation.

As hospitalists, this scenario might feel eerily familiar. Perhaps Mr. Smith had enough of being in the hospital and just wanted to go home, or maybe the food was not up to his standards.

However, his next line stops your team in its tracks. “I feel like I am in Vietnam all over again. I am tied up with all these wires and feel like a prisoner! Please let me go.” It turns out that Mr. Smith had a comorbidity that was overlooked during his initial intake: posttraumatic stress disorder.

Impact of PTSD

PTSD is a diagnosis characterized by intrusive recurrent thoughts, dreams, or flashbacks that follow exposure to a traumatic event or series of events (see Table 1). While more common among

veterans (for example, Vietnam veterans have an estimated lifetime prevalence of PTSD of 30.9% for men and 26.9% for women),¹ a national survey of U.S. households estimated the lifetime prevalence of PTSD among adult Americans to be 6.8%.² PTSD is often underdiagnosed and underreported by patients in the outpatient setting, leading to underrecognition and undertreatment of these patients in the inpatient setting.

Although it may not be surprising that patients with PTSD use more mental health services, they are also more likely to use nonmental health services. In one study, total utilization of outpatient nonmental health services was 91% greater in veterans with PTSD, and these patients were three times more likely to be hospitalized than those without any mental health diagnoses.³ Additionally, they are likely to present later and stay longer when compared with patients without PTSD. One study estimated the cost of PTSD-related hospitalization in the United States from 2002 to 2011 as being \$34.9 billion.⁴ Notably, close to 95% of hospitalizations in this study listed PTSD as a secondary rather than primary diagnosis, suggesting that the vast majority of these admitted patients are cared for by frontline providers who are not trained mental health professionals.

PTSD in the hospital

But, how exactly can the hospital environment contribute to decompensation of PTSD symptoms? Unfortunately, there are few empiric data to guide us. Based on what we do know of PTSD, we offer the following hypotheses.

Patients with PTSD may feel a loss of control or



Dr. Fletcher Dr. Kwan Dr. Steinbach

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Table 1. Posttraumatic stress disorder diagnostic criteria (DSM-5)

Diagnostic criteria	Description
Criterion A: Exposure to traumatic stressor, either as victim, perpetrator, or witness (one required)	Traumatic events include death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence. Stressor can be indirect (e.g., learning a close friend or relative was exposed to trauma)
Criterion B: Reexperiencing symptoms (one required)	Recurrent, unwanted, and intrusive memories, flashbacks, or traumatic nightmares; intense or prolonged distress or marked physiological activity after exposure to reminders of traumatic event(s)
Criterion C: Avoidance behaviors (one required)	Persistent effortful avoidance of distressing trauma-related stimuli after the event
Criterion D: Cognitive distortions (two required)	Being unable to recall key features of the traumatic event; persistent (and often distorted) negative beliefs and expectations about self, other people, or the world in general; persistent distorted blame of self or others for causing the traumatic events; negative emotional state that persists; decreased interest in important activities; not able to experience positive emotions
Criterion E: Increased arousal (two required)	Irritable or aggressive behavior; self-destructive or reckless behavior; hypervigilance; exaggerated startle response; difficulty concentrating; sleep problems
Criterion F: Duration (required)	Persistence of symptoms (in criteria B, C, D, and E) for more than 1 month
Criterion G: Functional impairment (required)	Symptoms create distress or functional impairment (e.g., social or occupational)
Criterion H: Exclusion (required)	Symptoms are not caused by medication, substance use, or other illness

Source: Dr. Fletcher, Dr. Kwan, Dr. Steinbach

helplessness when admitted to the inpatient setting. For example, they cannot control when they receive their medications or when they get their meals. The act of showering or going outside requires approval. In addition, they might perceive they are being “ordered around” by staff and may be carted off to a study without knowing why the study is being done in the first place.

Triggers in the hospital environment may contribute to PTSD flares. Think about the loud, beeping IV pump that constantly goes off at random intervals, disrupting sleep. What about a blood draw in the early morning where the phlebotomist sticks a needle into the arm of a sleeping patient? Or the well-intentioned provider doing prerounds who wakes a sleeping patient with a shake of the shoulder or some other form of physical touch? The multidisciplinary team crowding around their hospital bed? For a patient suffering from PTSD, any of these could easily set off a cascade of escalating symptoms.

Knowing that these triggers exist, can anything be done to ameliorate their effects? We propose some practical suggestions for improving the hospital experience for patients with PTSD.

Treatment of PTSD in the inpatient setting

Perhaps the most practical place to start is with preserving sleep in hospitalized patients with PTSD. The majority of patients with PTSD have sleep disturbances, and interrupted sleep routines in these patients can exacerbate nightmares and underlying psychiatric issues.⁵ Therefore, we should strive to avoid unnecessary awakenings.

While this principle holds true for all hospitalized patients, it must be especially prioritized in patients with PTSD. Ask yourself these questions

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during your next admission: Must intravenous fluids run 24 hours a day, or could they be stopped at 6 p.m.? Are vital signs needed overnight? Could the last dose of furosemide occur at 4 p.m. to avoid nocturia?

Another strategy involves bedtime routines. Many of these patients may already follow a home sleep routine as part of their chronic PTSD management. To honor these habits in the hospital might mean that staff encourage turning the lights and the television off at a designated time. Additionally, the literature suggests music therapy can have a significant impact on enhanced sleep quality. When available, music therapy may reduce insomnia and decrease the amount of time prior to falling asleep.⁶

Other methods to counteract PTSD fall under the general principle of “trauma-informed care.” Trauma-informed care comprises practices promoting a culture of safety, empowerment, and healing.⁷ It is a mindful and sensitive approach that acknowledges the pervasive nature of trauma exposure, the reality of ongoing adverse effects in trauma survivors, and the fact that recovery is highly personal and complex.⁸

By definition, patients with PTSD have endured some traumatic event. Therefore, ideal care teams will ask patients about things that may trigger their anxiety and then work to mitigate them. For example, some patients with PTSD have a severe startle response when woken up by someone touching them. When patients feel that they can share their concerns with their care team and their team honors that observation by waking them in a different way, trust and control may be gained. This process of asking for patient guidance and adjusting accordingly is consistent with a trauma-informed care approach.⁹ A true trauma-informed care approach involves the entire practice environment but examining and adjusting our own behavior and assumptions are good places to start.

Treatment summary

Psychotherapy is preferable over pharmacotherapy, but both can be combined as needed. Individual trauma-focused psychotherapies utilizing a primary component of exposure and/or cognitive restructuring have strong evidence for effectiveness but are primarily outpatient based.

For pharmacologic treatment, selective serotonin reuptake inhibitors (for example, sertraline, paroxetine, or fluoxetine) and serotonin norepi-

nephine reuptake inhibitors (for example, venlafaxine) monotherapy have strong evidence for effectiveness and can be started while inpatient. However, these medications typically take weeks to produce benefits. Recent trials studying prazosin, an α_1 -adrenergic receptor antagonist used to alleviate nightmares associated with PTSD, have demonstrated inefficacy or even harm, leading experts to caution against its use.^{10,11} Finally, benzodiazepine and atypical antipsychotic usage should be restricted and used as a last resort.¹²

In summary, PTSD is common among veterans and nonveterans. While hospitalists may rarely admit patients because of their PTSD, they will often take care of patients who have PTSD as a comorbidity. Therefore, understanding the basics of PTSD and how hospitalization may exacerbate its symptoms can meaningfully improve care for these patients.

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Family Medicine

Continued from page 1

Then an opportunity opened at Scotland Memorial, located an hour away. “That has been a fabulous experience for me,” she said. The transition was relatively easy, following more than 2 decades of office practice. Dr. Heim’s hospitalist group now includes eight full-time clinicians who have a mix of family medicine and internal medicine backgrounds.

“I’ve never felt anything other than collegial support here. We go to the ER to evaluate patients and decide whether to admit them, and we do a lot of medical procedures. I’m not practicing pediatrics currently, but I have no problem conducting a gynecological exam. I think my experience in family medicine and primary care has been an asset,” Dr. Heim said. “I’m not sure I would be a hospitalist today if I had not been elected president of AAFP, but it was fortuitous.”



Dr. Heim

Respect for HTFMs is growing

Hospitalists trained in family medicine (HTFM) are a small but important segment of this field and of the membership of the Society of Hospital Medicine. The board specialties of physicians who work in the hospital are not always broken out in existing databases, but HTFMs are believed to represent about 8% of SHM members, and somewhere around 10%-15% of the total hospitalist workforce. According to SHM’s 2018 *State of Hospital Medicine Report*, 65% of hospital medicine groups employed at least one family medicine-trained provider in their group.¹

SHM’s Special Interest Group (SIG) for HTFMs reports to the society’s Board of Directors. The American Academy of Family Medicine, with 131,400 members, also has a Member Interest Group (MIG) for HTFMs. When AAFP recently surveyed its members to identify their primary patient care practice location, only 4% named the hospital (not including the emergency department), while 3% said the hospital emergency department.²

Among 32,450 adult primary care-trained hospitalists surveyed for the June 2016 AAMC In Brief of the American Association of Medical Colleges, 81.9% of the hospitalists identified internal medicine as their specialty, while 5.2% identified themselves as family physicians.³ A 2014 Medical Group Management Association survey, which reported data for 4,200 hospitalists working in community hospitals, found that 82% were internal medicine trained, versus 10% in family medicine and 7% in pediatrics.

Family medicine hospitalists may be more common in rural areas or in small hospitals – where a clinician is often expected to wear more hats, said hospitalist David Goldstein, MD, FHM, assistant director of the family medicine residency program at Natividad Medical Center, Salinas, Calif., and cochair of SHM’s family medicine SIG. “In a smaller hospital, if there’s not sufficient volume to support full-time pediatric and adult hospital medicine services, a family medicine hospitalist might do both – and even help staff the ICU.”

A decade or so ago, much of the professional literature about the role of HTFMs suggested that some had experienced a lack of respect or of equal job opportunities, while others faced pay differentials.³⁻⁵ Since then, the field of hospital medicine has come a long way toward recognizing their



Dr. Geyer



Dr. Gundersen

contributions, although there are still hurdles to overcome, mainly involving issues of credentialing, to allow HTFMs to play equal roles in the hospital, in the ICU, or in residency training. The SHM 2018 *State of Hospital Medicine Report* reveals that HTFMs actually made slightly higher salaries on average than their internist colleagues, \$301,833 versus \$300,030.

Prior to the advent of hospital medicine, both family medicine and internal medicine physicians practiced in much the same way in their medical offices, and visited their patients in the hospital, said Claudia Geyer, MD, SFHM, system chief of hospital medicine at Central Maine Healthcare in Lewiston. She is trained and boarded in both family and internal medicine. “When hospital medicine launched, its heavy academic emphasis on internists led to underrecognition of the continued contributions of family medicine. Family physicians never left the hospital setting and – in certain locales – were the predominant hospitalists. We just waited for the recognition to catch up with the reality,” Dr. Geyer said.

“I don’t feel family medicine for hospitalists is nearly the stepchild of internal medicine that it was when I first started,” Dr. Heim said. “In my multihospital hospitalist group, I haven’t seen anything to suggest that they treat family medicine hospitalists as second class.” The demand for hospitalists is greater than internists can fill, while clearly the public is not concerned about these distinctions, she said.

Whether clinicians are board certified in family medicine or internal medicine may be less important to their skills for practicing in the hospital than which residency program they completed, what emphasis it placed on working in the hospital or ICU, electives completed, and other past experience. “Some family medicine residencies offer more or less hospital experience,” Dr. Heim said.

Jasen Gundersen, MD, MBA, CPE, SFHM, president of acute and post-acute services for the national hospital services company TeamHealth, agreed that there has been dramatic improvement in the status of HTFMs. He is one, and still practices as a hospitalist at Boca Raton (Fla.) Regional Hospital when administrative responsibilities permit.

TeamHealth has long been open to family medicine doctors, Dr. Gundersen added, although some of the medical staff at hospitals that contract with TeamHealth have issues with it. “We will talk to them about it,” he said. “We hire hos-

pitalists who can do the work, and we evaluate them based on their background and skill set, where they’ve practiced and for how long. We want people who are experienced and good at managing hospitalized patients. For new residency grads, we look at their electives and the focus of their training.”

What is home for HTFMs?

Where are HTFMs most likely to find their professional home? “That’s hard to answer,” said Patricia Seymour, MD, FHM, FAAFP, an academic hospitalist at the University of Massachusetts-Worcester. “In the last 4-5 years, SHM has worked very hard to create a space for HTFMs. AAFP has a hospital medicine track at their annual meeting, and that’s a good thing. But they also need to protect family physicians’ right to practice in any setting they choose. For those pursuing hospital medicine, there’s a different career trajectory, different CME needs, and different recertification needs.”

Dr. Seymour is the executive cochair of SHM’s family medicine SIG and serves as interim chief of a family medicine hospitalist group that provides inpatient training for a family practice residency, where up to a third of the 12 residents each year go on to pursue hospital medicine as a career. “We have the second-oldest family medicine-specific hospitalist group in the country, so our residency training has an emphasis on hospital medicine,” she explained.

“Because I’m a practicing hospitalist, the residents come to me seeking advice. I appreciate the training I received as a family physician in communication science, palliative care, geriatrics, family systems theory, and public health. I wouldn’t have done it any other way, and that’s how I counsel our students and residents,” she said. Others suggest that the generalist training and diverse experiences of family medicine can be a gift for a doctor who later chooses hospital medicine.

AAFP is a large umbrella organization and the majority of its members practice primary care, Dr. Heim said. “I don’t know the percentage of HTFMs who are members of AAFP. Some no doubt belong to both AAFP and SHM.” Even though both groups have recognized this important subset of their members who chose the field of hospital medicine and its status as a career track, it can be a stretch for family medicine to embrace hospitalists.

“It inherently goes against our training, which is to work in outpatient, inpatient, obstetric, pediatric, and adult settings,” Dr. Heim said. “It’s difficult to reconcile giving up a big part of what defined your training – that range of settings. I remember feeling like I should apologize to other family medicine doctors for choosing this path.”

Credentialing opportunities and barriers

For the diverse group of practicing HTFMs, credentialing and scope of practice represent their biggest current issues. A designation of Focused Practice in Hospital Medicine (FPHM) has been offered jointly since 2010 by the American Board of Family Medicine (ABFM) and the American Board of Internal Medicine (ABIM), although

their specific requirements vary.

Eligible hospitalist candidates for the focused practice exam must have an unrestricted medical license, maintenance of current primary certification, and verification of 3 years of unsupervised hospital medicine practice experience. ABIM views FPHM not as a subspecialty, but as a variation of internal medicine certification, identifying diplomates who are board certified in internal medicine with a hospital medicine specialization. They do not have to take the general internal medicine recertification exam if they qualify for FPHM.

ABFM-certified family physicians who work primarily in a hospital setting can take the same test for FPHM, with the same eligibility requirements. But ABFM does not consider focused practice a subspecialty, or the Certificate of Added Qualifications in Family Medicine as sufficient for board certification. That means family physicians also need to take its general board exam in order to maintain their ABFM board certification.

ABFM's decision not to accept the focused practice designation as sufficient for boarding was disappointing to a lot of hospitalists, said Laura "Nell" Hodo, MD, FAAFP, chair of AAFP's hospital medicine MIG, and a pediatric academic hospitalist at Icahn School of Medicine at Mount Sinai, New York. "Many family physicians practice hospital medicine exclusively and would prefer to take one boarding exam instead of two, and not have to do CME and board review in areas where we don't practice anymore," Dr. Hodo said, adding that she hopes that this decision could be revisited in the future.

A number of 1-year hospital medicine fellowships across the country provide additional training opportunities for both family practice and internal medicine residency graduates. These fellowships do not offer board certification or designated specialty credentialing for hospitalists and are not recognized by the American College of Graduate Medical Education (ACGME), which sets standards for residency and fellowship training. "But they reflect a need and an interest in optimizing the knowledge of hospital medicine and developing the specific skills needed to practice it well," Dr. Geyer noted.

She directs a program for one to three fellows per year out of the Central Maine Family Medicine Residency program and Central Maine Medical Center in Lewiston, and is now recruiting her 10th class. At least 13 other hospital medicine fellowships, out of about 40 nationwide, are family medicine based. "We rely heavily on the Core Competencies in Hospital Medicine developed by SHM, which emphasize clinical conditions, medical procedures, and health care systems. Gaining fluency in the latter is really what makes hospital medicine unique," Dr. Geyer said.

Often residency graduates seeking work in hospital medicine are insufficiently prepared for hospital billing and coding, enacting safe transitions of care, providing palliative care, and understanding how to impact their health care systems for quality improvement, patient safety, and the like, she added.

Dr. Geyer said her fellowship does not mean just being a poorly paid hospitalist for a year. "The fellows are clearly trainees, getting the full benefit of our supervision and supplemental training fo-

cused on enhanced clinical and procedural exposure, but also on academics, quality improvement, leadership, and efficiency," she said. "All of our fellows join SHM, go to the Annual Conference, propose case studies, do longitudinal quality or safety projects, and learn the other aspects of hospital medicine not well-taught in residency. We train them to be highly functional hospitalists right out of the gate."

Until recently, another barrier for HTFMs was their ability to be on the faculty of internal medicine residency programs. Previous language from ACGME indicated that family medicine-trained physicians could not serve as faculty for these programs, Dr. Goldstein said. SHM has lobbied ACGME to change that rule, which could enable family medicine hospitalists who had achieved FPHM designation to be attendings and to teach internal medicine residents.



Dr. Aymond

Needed in critical care – but not credentialed

One of the biggest frustrations for family medicine hospitalists is clarifying their role in the ICU. SHM's Education Committee recently surveyed hospitalist members who practice in the ICU, finding that at least half felt obliged to practice beyond their scope, 90% occasionally perceived insufficient support from intensivists, and two-thirds reported moderate difficulty transferring patients to higher levels of intensive care.⁶ The respondents overwhelmingly indicated that they wanted more training and education in critical care medicine.

"I want to highlight the fact that in some settings family physicians are the sole providers of critical care," Dr. Goldstein said. Meanwhile, the standards of the Leapfrog Group, a coalition of health care purchasers, call for ICUs to be staffed by physicians certified in critical care, even though there is a growing shortage of credentialed intensivists to treat an increasing number of older, sicker, critically ill patients.

Some internal medicine physicians don't want to have anything to do with the ICU because of the medical and legal risks, said David Aymond, MD, a family physician and hospitalist at Byrd Regional Hospital in Leesville, La. "There's a bunch of sick people in the ICU, and when some doctors like me started doing critical care, we realized we liked it. Depending on your locale, if you are doing hospital medicine, critically ill patients are going to fall in your lap," he said. "But if you don't have the skills, that could lead to poor outcomes and unnecessary transfers."

Dr. Aymond started his career in family medicine. "When I got into residency, I saw how much critical care was needed in rural communities. I decided I would learn everything I could about it. I did a hospital medicine fellowship at the University of Alabama, which included considerable involvement in the ICU. When I went to Byrd Regional, a 60-bed facility with 8 ICU beds, we did all of the critical care, and word started to spread in the community. My hospitalist partner and I are now on call 24/7 alternating weeks, doing the

majority of the critical care and taking care of anything that goes on in an ICU at a larger center, although we often lack access to consultation services," he explained.

"We needed to get the attention of the Society of Critical Care Medicine (SCCM) to communicate the scope of this problem. These doctors are doing critical care but there is no official medical training or recognition for them. So they're legally out on a limb, even though often they are literally the only person available to do it," Dr. Aymond said. "Certainly there's a skills gap between HTFMs and board-certified intensivists, but some of that gap has to do with the volume of patients they have seen in the ICU and their comfort level," he said.

SHM is pursuing initiatives to help address this gap, including collaborating with SCCM on developing a rigorous critical care training curriculum for internal medicine and family medicine hospitalists, with coursework drawn from existing sources, said Eric Siegal, MD, SFHM, a critical care physician in Milwaukee. "It doesn't replace a 2-year critical care fellowship, but it will be a lot more than what's currently out there for the nonintensivist who practices in the ICU." SCCM has approved moving forward with the advanced training curriculum, he said.

Another priority is to try to create a pathway that could permit family medicine-trained hospitalists to apply for existing critical care fellowships, as internal medicine doctors are now able to do. SHM has lobbied ABFM to create a pathway to subspecialty certification in critical care medicine, similar to those that exist for internists and emergency physicians, Dr. Goldstein said, adding that ACGME, which controls access to fellowships, will be the next step. Dr. Aymond expects that there will be a lot of hoops to jump through.

"David Aymond is an exceptional hospitalist," Dr. Siegal added. "He thinks and talks like an intensivist, but it took concerted and self-directed effort for him to get there. Family practitioners are a significant part of the rural critical care workforce, but their training generally does not adequately prepare them for this role – unless they have made a conscious effort to pursue additional training," he said.

"My message to family practitioners is not that they're not good enough to do this, but rather that they are being asked to do something they weren't trained for. How can we help them do it well?"

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Dr. Siegal

Dispatch from HM19: COPD updates

By Nageshwar Jonnalagadda, MD, MPH, FHM; and Venkatrao Medarametla, MD, SFHM, FACP

Session presenter

Cathy Grossman MD, FCCP, CHSE

Session title

COPD Updates 2019

Session summary

Chronic obstructive pulmonary disease (COPD) is the third most common cause of death in the United States and accounts for close to 730,000 admissions and 120,000 deaths per year.¹ That correlates to one death every 4 minutes. By 2020, the adjusted cost of COPD in the United States was projected to be approximately \$50 billion.²

Every COPD exacerbation is associated with economic, social, and mortality burdens. The probability of survival decreases to 20% by the end of 5 years in patients with frequent readmissions, compared with patients with no acute exacerbations of COPD.³ The Global Initiative for Chronic Obstructive Lung Disease (GOLD) recently released its 2019 report and gave fresh guidance

on medication changes to consider in patients who have had a COPD exacerbation.

At HM19, Cathy Grossman, MD, assistant professor of medicine in the division of pulmonary and critical care medicine at Virginia Commonwealth University, Richmond, discussed the updates. She explained that most of the patients who are treated by hospitalists are GOLD group C or group D, and stressed the importance of involving the pulmonology team in the care of these patients.

Dr. Grossman explained that GOLD 2019 recommended using eosinophil counts to predict the effect of inhaled corticosteroids (ICS), added to regular maintenance bronchodilator treatment, in preventing future exacerbations. These effects are observed to be incrementally increasing at higher eosinophil counts. For patients who are taking a long-acting beta₂-agonist or muscarinic antagonist (LABA or LAMA), and have a high eosinophil count (at least 300 cells/mcL, or at least 100 cells/mcL plus a history of several exacerbations), one could consider adding an ICS.⁴ For patients who

don't fulfill these criteria, one could try a LABA plus a LAMA. However, one has to be cautious as some of these patients get intravenous dexamethasone by emergency medical services and admission labs may not show eosinophils.

A caveat to using ICS is that, in some of these of the patients, ICS may lead to bacterial overgrowth and therefore more pneumonias, and that may be contributing to frequent admissions of these patients. In such patients, discontinuation might be a viable option. The guidelines recommend starting GOLD group C and D patients with LAMA or LAMA/LABA combination inhalers, and ICS if they have high eosinophil counts. If patients are already on triple therapy, one could add roflumilast⁵ or a macrolide.

The effectiveness of noninvasive positive-pressure ventilation (NIV) in COPD patients with prolonged hypercapnia after ventilatory support for acute respiratory failure remains unclear, although there are some data to support the use of home NIV in patients with COPD and obstructive sleep apnea, both with and without hypercapnia. Dr. Grossman mentioned that there are still many unanswered questions, like identifying the right patient, right time, and right settings, and more studies are underway.

Dr. Grossman concluded that bread-and-butter topics like smoking cessation counseling, inhaler instruction, and referral to pulmonary rehab



Dr. Jonnalagadda



Dr. Medarametla

Dr. Jonnalagadda is a physician adviser, and Dr. Medarametla is medical director, of hospital medicine at Baystate Medical Center in Springfield, Mass.

are still the most important tools to decrease COPD exacerbations.

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New analysis challenges fluid resuscitation guidelines

By Ted Bosworth

MDedge News

Treating children in shock with a bolus of saline or albumin fluid imposes counterproductive effects on respiratory and neurologic function, ultimately increasing risk of death, according to a detailed analysis of available data.

Several sets of guidelines for resuscitation of patients in shock have advocated volume expansion with bolus intravenous fluid, but that recommendation was based on expected physiologic benefits not a randomized trial. The only randomized trial associated this approach

showed increased mortality, and a new analysis of these and other data appears to explain why.

According to the findings of a study led by Michael Levin, MD, of Imperial College London, "volume resuscitation is associated with deterioration of respiratory function and neurological function in some patients" (*Lancet Respir Med.* 2019;7:581-93). The authors stated that saline-induced hyperchloremic acidosis appears to have been "a major contributor" to the observed increase in adverse outcomes. The authors say the findings might be relevant to adults as well as children.

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Patients with COPD at heightened risk for CAP requiring hospitalization

By Mark S. Lesney

MDedge News

Patients with chronic obstructive pulmonary disease are at a significantly increased risk for hospitalization for community-acquired pneumonia (CAP), compared with patients without COPD, a large prospective study has found.

Jose Bordon, MD, and colleagues aimed to define incidence and outcomes of COPD patients hospitalized with pneumonia in the city of Louisville, Ky., and to extrapolate the burden of disease in the U.S. population. They conducted a secondary analysis of data from the University of Louisville Pneumonia Study, a prospective population-based cohort study of all hospitalized adults with CAP who were residents in Louisville, from June 1, 2014, to May 31, 2016.

COPD prevalence in Louisville was derived via data from the 2014 Behavioral Risk Factor Surveillance System (BRFSS) as well as from the 2014 National Health Interview Survey (NHIS). In addition, the researchers analyzed clinical outcomes including time to clinical stability (TCS), length of hospital stay (LOS), and mortality, according to Dr. Bordon, an infectious disease specialist at Providence Health Center, Washington, and colleagues on behalf of the University of Louisville Pneumonia Study Group.

The researchers found an 18-fold greater incidence of community-acquired pneumonia in patients with COPD, compared with non-COPD patients.

A total of 18,246 individuals aged 40 and older with COPD were estimated to live in Louisville.



The researchers found that 3,419 COPD patients were hospitalized because of CAP in Louisville during the 2-year study period. COPD patients, compared with non-COPD patients, were more likely to have a history of heart failure, more ICU admissions, and use of mechanical ventilation, compared with patients without COPD. The two groups had similar pneumonia severity index scores, and 17% received oral steroids prior to admission. COPD patients had more pneumococcal pneumonia, despite receiving pneumococcal vaccine significantly more often than non-COPD patients.

The annual incidence of hospitalized CAP was 9,369 cases per 100,000 COPD patients in the city of Louisville. In the same period, the incidence of CAP in patients without COPD was 509 per

100,000, a more than 18-fold difference.

Although the incidence of CAP in COPD patients was much higher than in those without, the difference didn't appear to have an impact on clinical outcomes. There were no clinical differences among patients with vs. without COPD in regard to time to reach clinical improvement and time of hospital discharge, and in-hospital mortality was not statistically significantly different between the groups, the authors reported. The mortality of COPD patients during hospitalization, at 30 days, at 6 months, and at 1 year was 5.6% of patients, 11.9%, 24.3%, and 33.0%, respectively vs. 6.6%, 14.2%, 24.2%, and 30.1% in non-COPD patients. However, 1-year all-cause mortality was a significant 25% greater among COPD patients, as might be expected by the progression and effects of the underlying disease.

"[Our] observations mean that nearly 1 in 10 persons with COPD will be hospitalized annually due to CAP. This translates into approximately 500,000 COPD patients hospitalized with CAP every year in the U.S., resulting in a substantial burden of approximately 5 billion U.S. dollars in hospitalization costs," the researchers stated.

"Modifiable factors associated with CAP such as tobacco smoking and immunizations should be health interventions to prevent the burden of CAP in COPD patients," even though "pneumococcal vaccination was used more often in the COPD population than in other CAP patients, but pneumococcal pneumonia still occurred at a numerically higher rate," they noted.

The study was supported by the University of Louisville with partial support from Pfizer. The authors reported having no conflicts.

Risk of cardiac events jumps after COPD exacerbation

By Bianca Nogrady

MDedge News

Acute exacerbations in chronic obstructive pulmonary disease could also trigger a cardiac event such as MI or stroke, particularly in older individuals, new research has found.

In Respiriology, researchers report the outcomes of a nationwide, register-based study involving 118,807 patients with chronic obstructive pulmonary disease (COPD) who experienced a major adverse cardiac event after an exacerbation.

They found that the risk of any major cardiac adverse event increased 270% in the 4 weeks after the onset of an exacerbation (95% confidence interval, 3.60-3.80). The strongest association was seen for cardiovascular death, for which

there was a 333% increase in risk, but there was also a 257% increase in the risk of acute MI and 178% increase in the risk of stroke.

The risk of major adverse cardiac events was even higher among individuals who were hospitalized because of their COPD exacerbation (odds ratio, 5.92), compared with a 150% increase in risk among those who weren't hospitalized but were treated with oral corticosteroids and 108% increase among those treated with amoxicillin with enzyme inhibitors.

The risk of a major cardiac event after a COPD exacerbation also increased with age. Among individuals younger than 55 years, there was a 131% increase in risk, but among those aged 55-69 years there was a 234% increase, among those aged 70-79 years the risk increased 282%,

and among those aged 80 years and older it increased 318%.

Mette Reilev, from the department of public health at the University of Southern Denmark, Odense, and coauthors suggested that acute exacerbations were associated with elevated levels of systemic inflammatory markers such as fibrinogen and interleukin-6, which were potentially prothrombotic and could potentially trigger cardiovascular events.

"Additionally, exacerbations may trigger type II myocardial infarctions secondary to an imbalance in oxygen supply and demand," they wrote.

The authors raised the question of whether cardiovascular prevention strategies should be part of treatment recommendations for people with COPD, and suggested that

prevention of COPD exacerbations could be justified even on cardiovascular grounds alone.

"Studies investigating the effect of cardiovascular treatment on the course of disease among COPD exacerbators are extremely scarce," they wrote. "Thus, it is currently unknown how to optimize treatment and mitigate the increased risk of [major adverse cardiovascular events] following the onset of exacerbations."

However, they noted that prednisolone treatment for more severe exacerbations may have a confounding effect, as oral corticosteroids could induce dyslipidemia, hypertension, and hyperglycemia, and increase long-term cardiovascular risk.

Six authors declared funding from the pharmaceutical industry – three of which were institutional support – unrelated to the study.

Key Clinical Question

Anticoagulant therapy for AFib in patients with end-stage renal disease

Warfarin or apixaban are sensible options

By Faye Farber, MD; Neil Stafford, MD; Suchita Shah Sata, MD; Rami Abdo, MD; Shree Menon, DO; Megan Brooks, MD; Adam Wachter, MD; Poonam Sharma, MD, SFHM

Case

A 78-year-old woman with end-stage renal disease (ESRD) is hospitalized with cellulitis and is incidentally found to be in atrial fibrillation. She does not have a history of mitral stenosis, nor does she have a prosthetic valve. She does have a history of hypertension, diabetes, and prior stroke without residual deficits.

After counseling her about the risk of stroke associated with atrial fibrillation (AFib) she makes it clear she is interested in pharmacologic therapy to minimize her risk of stroke and asks what medication you would recommend for anticoagulation.

Brief overview of the issue

Anticoagulation for AFib is indicated for stroke prophylaxis in patients with an elevated risk of stroke. The CHA₂DS₂-VASc score is useful in calculating an individual patient's risk of stroke and as a decision tool to determine who would benefit from anticoagulation, and it is recommended in the American Heart Association guidelines.¹

Low-risk patients (CHA₂DS₂-VASc score of 0 in men or 1 in women) should not be started on anticoagulation for stroke prophylaxis. For anyone with a risk factor, other than being female, anticoagulation is indicated and should be considered.

The guideline recommends anticoagulant therapy, not antiplatelet agents. For most of the recent past, this has meant a vitamin K antagonist (warfarin) or sometimes a low-molecular-weight heparin injected subcutaneously. Over the past decade, however, with the approval of multiple direct oral anticoagulants (DOACs), nonwarfarin oral anticoagulation has grown in popularity as the prophylactic

medication of choice.²

While the data for patients with preserved renal function are robust, there are far fewer data to guide decision making for patients with end-stage renal disease.

Overview of the data

Until the introduction of DOACs, warfarin was the main agent used for stroke prophylaxis in patients with end-stage kidney disease and AFib. Professional guidelines favored warfarin for these patients who were mostly excluded from DOAC trials. Specialized conferences also looked at this issue.

The Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference, which reviewed chronic kidney disease and arrhythmias, noted that there were no randomized controlled trials that examined the efficacy and safety of anticoagulation in chronic kidney disease patients with estimated creatinine clearance less than 30 mL/min. They remarked that there was insufficient high-quality evidence to recommend warfarin for the pre-

vention of stroke in patients with AFib and dialysis-dependent chronic kidney disease.

Since, according to other trials, DOACs had better safety profiles in other populations, the conference noted that lower-dose apixaban (2.5 mg orally twice daily) or rivaroxaban (15 mg daily) may be considered in this population until clinical safety data were available. Furthermore, the conference recommended that these patients be treated with a multidisciplinary approach in regards to anticoagulation and have an annual reevaluation of treatment goals, along with a risk-benefit assessment.³

Since the publication of the 2018 AHA guidelines and the guidance document that resulted from the KDIGO conference, additional research has been published comparing anticoagulation with a DOAC versus warfarin for AFib in patients with ESRD.

"Outcomes associated with apixaban use in patients with end-stage kidney disease and atrial fibrillation in the United States" was an observational, retrospective, cohort study that compared outcomes in dialysis patients who took warfarin for AFib with those who took apixaban.⁴ Patients' data were taken from the U.S. Renal Data System database and were included in the final analysis if they had ESRD, a recent diagnosis

of AFib or atrial flutter, and a new prescription for either warfarin or apixaban. Outcome measures were stroke or systemic embolism, major bleeding (critical site, transfusion, or death), gastrointestinal bleeding, intracranial bleeding, or death. Drug usage and compliance were assessed using Medicare Part D prescription information.

A total of 25,523 patients met the inclusion/exclusion criteria and had taken either warfarin (n = 23,172) or apixaban (n = 2,351). For selection bias in these cohorts, a subset of the warfarin patients was selected based on prognostic score matching. The prognostic score was calculated from the baseline characteristics (which included age, stroke history, diabetes, smoking, antiplatelet medication, liver disease, prior bleeding, and CHA₂DS₂-VASc score). Kaplan-Meier and Cox regression analysis were used to give hazard ratios and 95% confidence intervals for each outcome measure. Prespecified subgroup analyses were conducted to compare apixaban doses, where 44% were prescribed 5 mg b.i.d. and 56% were prescribed 2.5 mg b.i.d.

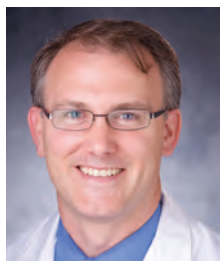
In the study, patients in the apixaban group had a significantly lower risk of major bleeding as compared with the warfarin group (HR, 0.72; 95% CI, 0.59-0.87; P less than .001)

Key Points

- According to 2019 American Heart Association guidelines, warfarin or apixaban are reasonable options for stroke prevention for patients who have end-stage renal disease and who plan for anticoagulation because of atrial fibrillation.
- Recent observational data suggest that apixaban may be safer than warfarin in this population.
- Several randomized, controlled trials are ongoing that may help determine the optimal agent to use in this setting.
- Until more definitive data are available, a reasonable approach is to discuss the risks and benefits of various treatment strategies with patients, and engage a multidisciplinary team (cardiologist, nephrologist, primary care provider, pharmacist) in the decision-making process.



Dr. Farber



Dr. Stafford



Dr. Sata



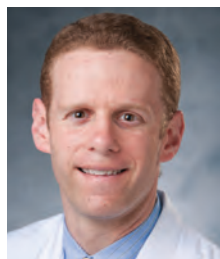
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with overall high rates of major bleeding in both groups at 19.7 and 22.9 per 100 patient-years in the apixaban group and warfarin group, respectively. There was no difference in the rate of stroke/systemic embolism between patients receiving apixaban and warfarin (HR, 0.88; 95% CI, 0.69-1.12; $P = .29$). There was a non-significant trend toward decreased risk of GI bleeding in the apixaban group and no significant differences between the groups in the rates of intracranial bleeding. Apixaban was also associated with a nonsignificant trend toward lower risk of mortality (HR, 0.85; 95% CI, 0.71-1.01; $P = .06$).

Notably, censoring rates because of expired prescriptions or a 1-month gap between prescriptions were high in both groups and the majority of censoring occurred within the first 12 months. Additionally, in dose-specific analyses, patients receiving the 5-mg, twice-daily dose were found to have statistically significant decreases in risk of stroke/systemic embolism ($P = .035$) and mortality ($P = .005$) as compared with the 2.5-mg, twice-daily dose without significant differences in GI or intracranial bleeding.

There are three ongoing, open-label, randomized, controlled trials examining anticoagulation for non-valvular AFib in patients with ESRD on hemodialysis with two comparing apixaban to warfarin (or deriva-

tive) and the other warfarin versus no anticoagulation.⁵ All trials are in adult patients with documented AFib and CHA₂DS₂-VASc score of at least 2. AKADIA (Germany based) plans to enroll 222 patients and compares a vitamin K antagonist (INR goal, 2-3) with 2.5-mg b.i.d. apixaban patients with ESRD on hemodialysis for at least 3 months with primary outcome of major and clinically relevant nonmajor bleeding and secondary outcome of thromboembolic events, as well as apixaban levels pre- and post hemodialysis.

RENAL-AF (U.S. based) plans to enroll 762 patients and compares 5 mg b.i.d. apixaban (with 2.5 mg for selected patients) with warfarin in people of chronic hemodialysis with primary outcome of days to first major or clinically relevant nonmajor bleeding event and secondary outcome of stroke, systemic embolism, mortality, adherence, and plasma apixaban levels. AVKDIAL (France based) plans to enroll 855 patients and compares no anticoagulation with vitamin K antagonists in patients on hemodialysis for at least 1 month, with primary outcome of cumulative incidence of severe bleeding and thrombosis.

Application of the data to our original case

Our patient is Medicare age with ESRD and newly diagnosed non-

valvular AFib. Recent data suggest apixaban could be used for stroke prevention instead of the prior standard of care, warfarin. This approach is supported in the 2019 guidelines.¹

Patients with ESRD have an increased risk of bleeding and apixaban was shown to have less bleeding complications than warfarin in this analysis. However, only standard-dose apixaban was associated with a statistically significant lower risk of stroke/systemic embolism, major bleeding, and death. Reduced-dose apixaban had a lower risk of major bleeding but no difference for stroke/systemic embolism or death.

Reduced-dose apixaban is used for patients who have two out of the following three criteria: aged at least 80 years, weight of at least 60 kg, and creatinine of at least 1.5 mg/dL. Therefore, many Medicare-age patients with ESRD would not be indicated for the dose of apixaban that was shown to improve the most important outcomes of stroke/SE and death.

It may still be beneficial to use apixaban in this patient since it appears to work as well as warfarin for stroke/systemic embolism pre-

vention with less bleeding complications.

Bottom line

For patients who have decided to pursue an anticoagulation strategy for stroke prevention in AFib and have end-stage renal disease, either warfarin or apixaban are sensible options.

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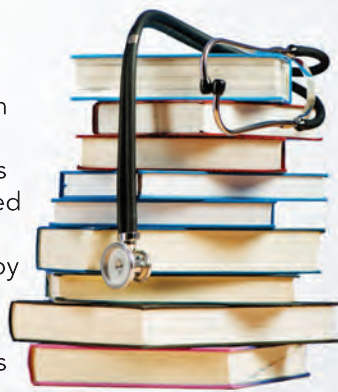
Clinician reviews of HM-centric research

By Mel L. Anderson, MD, FACP; Jacob Blount, MD; Matthew Hoegh, MD;
Bryan Lublin, MD, MPH; Kasia Mastalerz, MD; and Tyler Miller, MD

Hospital Medicine Section, Veterans Affairs Eastern Colorado Health Care System, Aurora

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By Mel L. Anderson, MD, FACP

1 PAP use associated with lower mortality

CLINICAL QUESTION: What is the association between positive



Dr. Anderson

airway pressure (PAP) treatment for obstructive sleep apnea (OSA) and mortality at long-interval follow-up?

BACKGROUND: OSA is a key modifiable risk factor for adverse

cardiovascular outcomes and is increasingly prevalent in older populations. PAP improves OSA severity, increases oxygenation, and reduces daytime sleepiness. Its effect on major adverse cardiovascular outcomes remains uncertain.

STUDY DESIGN: Retrospective cohort study of the Sleep Heart Health Study.

SETTING: Nine existing U.S. epidemiologic studies.

SYNOPSIS: Of the 392 patients analyzed, 81 were prescribed PAP and 311 were not. Investigators controlled for OSA severity, history of stroke or MI, hypertension, diabetes, weight, smoking, and alcohol intake. The adjusted hazard ratio for death at mean 11 years was 42% lower for those prescribed PAP.

BOTTOM LINE: PAP markedly lowers mortality in OSA, with survival

curves separating at 6-7 years.

CITATION: Lisan Q et al. Association of positive airway pressure prescription with mortality in patients with obesity and severe obstructive sleep apnea. *JAMA Otolaryngol Head Neck Surg.* 2019 Apr 11. doi: 10.1001/jamaoto.2019.0281.

2 Suboptimal statin response predicts future risk

CLINICAL QUESTION: What are the differences in LDL cholesterol responses among primary prevention patients prescribed statins, and do those differences predict future cardiovascular risk?

BACKGROUND: Rates of LDL-C reduction with statin therapy vary based on biological and genetic factors, as well as adherence. In a general primary prevention population at cardiovascular risk, little is known about the extent of this variability or its impact on outcomes.

STUDY DESIGN: Prospective cohort study.

SETTING: Primary care practices in England and Wales.

SYNOPSIS: Across a cohort of 183,213 patients, 51.2% had a suboptimal response, defined as a less than 40% proportional reduction in LDL-C. During more than 1 million person-years of follow-up, suboptimal statin response at 2 years was associated with a 20% higher hazard ratio for incident cardiovascular disease.

BOTTOM LINE: Half of patients do not have a sufficient response to statins, with higher attendant future risk.

CITATION: Akyea RK et al. Sub-optimal cholesterol response to initiation of statins and future risk of cardiovascular disease. *Heart.* 2019 Apr 15;0:1-7. doi: 10.1136/heart-jnl-2018-314253.

Dr. Anderson is chief, hospital medicine section, and deputy chief, medicine service, at the Veterans Affairs Eastern Colorado Health Care System, Aurora.

By Jacob Blount, MD

3 Treatment developments in obstructive hypertrophic cardiomyopathy (oHCM)

CLINICAL QUESTION: Is there an effective serum level of mavacamten that decreases left ventricular outflow tract (LVOT) gradient in patients with oHCM?

BACKGROUND: oHCM is characterized by mutations in sarcomeric proteins. Mavacamten is a small-molecule modulator of cardiac myosin, commonly affected in oHCM.

STUDY DESIGN: Open-label, non-randomized phase 2 trial.

SETTING: Five academic medical centers.

SYNOPSIS: A total of 21 patients with oHCM were randomized to cohort A, high-dose mavacamten without additional therapy (beta-blockers, CCBs), or cohort B, low-dose mavacamten plus additional medical therapy. The LVOT gradient at 12 weeks improved in both cohorts: Cohort A had a mean change of -89.5 mm Hg (95% confidence interval, -138.3 to -40.7; $P = .008$) and cohort B -25.0 mm Hg (95% CI, -47.1 to -3.0, $P = .020$).

BOTTOM LINE: This phase 2 trial provides proof of concept and identified a plasma concentration of mavacamten needed to decrease the LVOT significantly. Phase 3 trials hold significant promise.

CITATION: Heitner SB et al. Mavacamten treatment for obstructive hypertrophic cardiomyopathy: A

clinical trial. *Ann Intern Med.* 2019 Apr 30. doi: 10.7326/M18-3016.

Dr. Blount is a hospitalist at the University of Colorado at Denver, Aurora.

By Matthew Hoegh, MD

4 Canagliflozin protects diabetic kidneys

CLINICAL QUESTION: Do sodium-glucose cotransporter 2

(SGLT2) medications protect at-risk kidneys in type 2 diabetes?

BACKGROUND: Type 2 diabetes is the leading cause of kidney failure worldwide. Few treatment options exist to help im-



Dr. Hoegh

prove on this outcome in patients with chronic kidney disease.

STUDY DESIGN: CREDENCE (industry-sponsored) double-blind, randomized placebo-controlled trial.

SETTING: 695 sites in 34 countries, 4,401 patients.

SYNOPSIS: The trial was stopped early after a planned interim analysis on the recommendation of the data and safety monitoring committee. Canagliflozin reduced serious adverse renal events or death from renal or cardiovascular causes at 2.62 years (11.1% vs. 15.5% with placebo; number needed to treat, 23).

BOTTOM LINE: Canagliflozin lowered serious adverse renal events people with type 2 diabetes who also had chronic kidney disease.

CITATION: Perkovic V et al. Canagliflozin and renal outcomes in type 2 diabetes and nephropathy. *N Engl J Med.* 2019 Apr 14. doi: 10.1056/NEJMoa1811744.

5 Worrisome health disparities among transgender adults

CLINICAL QUESTION: Do disparities in physical and mental health exist in the transgender patient population?

BACKGROUND: The transgender population historically has not been

identified in population research. Little is known about their health care needs.

STUDY DESIGN: Survey review.

SETTING: Large, continuously operative health survey.

SYNOPSIS: The Centers for Disease Control and Prevention added an optional Sexual Orientation and Gender Identity module to the Behavioral Risk Factor Surveillance System in 2014. Compared with non-transgender responders, transgender adults (0.55% of responders) were more likely to report “fair” or “poor” health status (24.5% vs. 18.2%), were more likely to have experienced severe mental distress in the last 30 days (20.3% vs. 11.6), and were more likely to be physically inactive (35% vs. 25.6%), smoke cigarettes (19.2% vs. 16.3%), and lack health care coverage (20.1% vs. 14.6%).

BOTTOM LINE: Transgender adults report worse physical and mental health status. Physicians should consider these disparities during screening and treatment.

CITATION: Baker K. Findings from the Behavioral Risk Factor Surveillance System on health-related quality of life among U.S. transgender adults, 2014-2017. *JAMA Intern Med.* 2019 Apr 22. doi: 10.1001/ja-

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Dr. Hoegh is a hospitalist at the University of Colorado at Denver, Aurora.

By Bryan Lublin, MD, MPH

6 One-year mortality after dialysis initiation nearly double prior estimates

CLINICAL QUESTION: What is the 1-year mortality rate after dialysis initiation in patients older than age



Dr. Lublin

65 years?

BACKGROUND:

The United States Renal Data System registry estimates that approximately 30% of patients die within 1 year of initiating hemodialysis.

STUDY DESIGN: Retrospective, observational analysis.

SETTING: The Health and Retirement Study is a nationally representative survey of Medicare beneficiaries during 1998-2014. Medicare claims were linked to mortality data from the National Death Index.

SYNOPSIS: Among 391 patients who

initiated dialysis, 22.5%, 44.2%, and 54.5% died within 30 days, 6 months, and 1 year, respectively. After multivariate adjustment, 1-year mortality was higher among those who initiated dialysis while inpatients (hazard ratio, 2.17; 62.2%), had any activity of daily living dependence prior to dialysis (HR, 1.88; 73.0%), or had more than four comorbidities (HR, 1.5; 59.9%).

BOTTOM LINE: Medicare beneficiaries may have significantly higher mortality after initiating dialysis than prior data suggest.

CITATION: Wachterman MW et al. One-year mortality after dialysis initiation among older adults. *JAMA Intern Med.* 2019 Apr 22. doi: 10.1001/jamainternmed.2019.0125.

Continued on following page

Short Takes

New guidelines on use of erythropoiesis-stimulating agents (ESAs) in chemotherapy-related anemia

ESAs and biosimilars may be offered to cancer patients with chemotherapy-associated anemia receiving palliative treatment if Hb is less than 10 to reduce transfusion needs. Iron supplementation may improve response. ESA risks of thromboembolism, cardiovascular events, and mortality must be carefully weighed.

CITATION: Bohlius J et al. Management of cancer-associated anemia with erythropoiesis-stimulating agents: ASCO/ASH clinical practice guideline update. *J Clin Oncol.* 2019 May 20;37(15):1336-51.

E-cigarettes and seizures

The Food and Drug Administration issued a special announcement noting an increase in reports of seizure activity especially among youth and young adults in response to e-cigarette use. Ask patients about vaping and report related seizures to the FDA.

CITATION: Some e-cigarette users are having seizures, most reports involving youth and young adults: FDA special announcement.



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7 Anticoagulation in cirrhosis: Best practices

CLINICAL QUESTION: How should the various coagulation abnormalities of cirrhosis be managed based on existing evidence?

BACKGROUND: Alterations to the coagulation cascade put cirrhotic patients at higher risk for bleeding and thrombotic complications.

STUDY DESIGN: Expert review.

SETTING: Literature review.

SYNOPSIS: The authors provide 12 best practice recommendations, including use blood products sparingly in the absence of active bleeding out of concern for raising portal pressures; low-risk paracentesis, thoracentesis, and upper endoscopy do not require routine correction of thrombocytopenia or coagulopathy; for active bleeding or high-risk procedures, correct hematocrit to above 25%, platelets to more than 50,000, and fibrinogen to above 120 mg/dL; the risk of thrombosis, including venous thromboembolism and portal vein thrombosis, is high in these patients despite elevated INR values.

As such, pharmacologic VTE prophylaxis is often underutilized in patients admitted with cirrhosis; for patients requiring therapeutic anticoagulation, direct oral anticoagulants are safe in stable patients with mild cirrhosis, but should be avoided in Child-Pugh B and C patients.

BOTTOM LINE: Cirrhotic patients do not require routine correction

of coagulopathy prior to low-risk procedures.

CITATION: O'Leary JG et al. AGA Clinical Practice Update: Coagulation in cirrhosis. *Gastroenterology*. 2019. doi: 10.1053/j.gastro.2019.03.070.

Dr. Lublin is a hospitalist at the University of Colorado at Denver, Aurora.

By Kasia Mastalerz, MD

8 Goals of care conferences for incapacitated ICU patients

CLINICAL QUESTION: To what extent do clinicians and surro-

gates incorporate critically ill patient values and preferences into treatment decisions during goals of care conferences?



Dr. Mastalerz

BACKGROUND: Previous studies suggest that clini-

cians and surrogates rarely discuss patient values in ICU family conferences about goals of care despite recommendations from international critical care societies.

STUDY DESIGN: Analysis of audiotaped goals of care conferences.

SETTING: ICUs in six U.S. academic centers.

SYNOPSIS: The authors analyzed 249 audiotaped family conferences concerning goals of care for severely critically ill, incapacitated patients with acute respiratory distress syn-

drome and found that information about patient values and preferences was discussed in only 68.4% of the conferences.

Moreover, there was no deliberation about how to apply patient values and preferences to clinical decisions in 55.7% of the conferences. Surrogates were more likely to bring up these elements of shared decision making than were physicians.

BOTTOM LINE: Care providers and surrogates of critically ill ICU patients often fail to discuss patient preferences, values, and how they apply to care decisions in goals of care conferences.

CITATION: Scheunemann LP et al. Clinician-family communication about patients' values and preferences in intensive care units. *JAMA Intern Med*. 2019;179(5):676-84.

Dr. Mastalerz is a hospitalist and medical director of 9A Accountable Care Unit at the Colorado Health Foundation.

By Tyler Miller, MD

9 Combination nicotine replacement therapy better than single form

CLINICAL QUESTION: Among nicotine replacement therapy (NRT) prescription

options, which strategy results in the highest rate of smoking cessation?



Dr. Miller

BACKGROUND: NRT use after smoking cessation helps smokers transition

to abstinence by reducing the intensity of craving and withdrawal symptoms. It is uncertain which forms of NRTs are more likely to result in long-term smoking cessation.

STUDY DESIGN: Meta-analysis.

SETTING: Cochrane review of randomized trials.

SYNOPSIS: In this Cochrane Review, the authors identified 63 randomized trials with 41,509 participants comparing one type of NRT with another.

Combination NRT (for example, the patch & a fast-acting form such as gum or lozenge) increases long-term quit rates versus single-form NRT (risk ratio, 1.25; 95% confidence interval, 1.15-1.36). Researchers compared 4 mg to 2 mg nicotine gum and found a benefit of the higher dose (RR, 1.43; 95% CI, 1.12-1.83), al-

though possibly only among heavy users.

BOTTOM LINE: Prescribe combination patch and short-acting NRTs to smokers motivated to quit.

CITATION: Lindson N et al. Different doses, durations, and modes of delivery of nicotine replacement therapy for smoking cessation. *Cochrane Database Syst Rev*. 2019 Apr 18;4:CD013308. doi: 10.1002/14651858.CD013308.

10 Risky business: Longer-course prophylactic perioperative antimicrobials

CLINICAL QUESTION: Is administration of prophylactic antimicrobials beyond 24 hours associated with a difference in the postoperative outcomes of surgical site infection (SSI), acute kidney injury (AKI), or *Clostridium difficile* infection?

BACKGROUND: National guidelines recommend that surgical prophylactic antimicrobials be initiated within 1 hour prior to incision and discontinued 24 hours postoperatively. However, the risks and benefits of longer duration of antimicrobials are uncertain.

STUDY DESIGN: Retrospective cohort study.

SETTING: Veterans Affairs hospitals.

SYNOPSIS: After stratification by type of surgery and adjustment for covariates, antibiotic prophylaxis greater than 24 hours was not associated with lower SSI risk.

However, the odds of postoperative AKI increased with each additional day of prophylaxis (adjusted odds ratios, 1.82; 95% confidence interval, 1.54-2.16 and aOR, 1.79; 95% CI, 1.27-2.53) with longer than 72 hours prophylaxis for cardiac and noncardiac surgery, respectively). Similarly, *C. difficile* infections increased with each additional day beyond 24 hours (aOR, 3.65; 95% CI, 2.40-5.55 with more than 72 hours of use).

BOTTOM LINE: Each day of perioperative antimicrobial prophylaxis beyond 24 hours increases the risk for postoperative AKI or *C. difficile* infection without reducing the risk of surgical site infection.

CITATION: Branch-Elliman W et al. Association of duration and type of surgical prophylaxis with antimicrobial-associated adverse events. *JAMA Surg*. 2019 Apr 24. doi: 10.1001/jamasurg.2019.0569.

Dr. Miller is a hospitalist at the University of Colorado at Denver, Aurora.

Short Takes

GFR-estimation equations perform equally in older adults

This single center, cross-sectional study of 2,247 patients aged 65 years or older showed there was no significant difference in performance between the Chronic Kidney Disease-Epidemiology Collaboration (CKD-EPI), Lund-Malmö Revised, full-age spectrum, and Berlin Initiative Study-1 equations when estimating GFR.

CITATION: da Silva Selistre L et al. Diagnostic performance of creatinine-based equations for estimating glomerular filtrate rate in adults 65 years and older. *JAMA Intern Med*. 2019 Apr 29. doi: 10.1001/jamainternmed.2019.0223.

Smells like higher mortality

A prospective community-based cohort study shows poor olfaction is an independent predictor of increased long-term mortality across socioeconomic status, race, sex, and baseline health status.

CITATION: Liu B et al. Relationship between poor olfaction and mortality among community-dwelling older adults: A cohort study. *Ann Intern Med*. 2019 Apr 30;170(10):673-81.

Pediatric ITL

Treating children with Kawasaki disease and coronary enlargement

IVIG plus steroids or infliximab, or IVIG alone?

By Samuel C. Stubblefield, MD

Clinical question

Does use of corticosteroids or infliximab in addition to intravenous immunoglobulin improve cardiac outcomes in children with Kawasaki disease and enlarged coronary arteries?

Background

Kawasaki disease is a medium-vessel vasculitis primarily of young children. While the underlying cause remains unknown, treatment with intravenous immunoglobulin (IVIG) substantially lowers the risk of coronary artery aneurysms (CAA), the most serious sequelae of Kawasaki disease. Recent studies have suggested that – in cases of high-risk or treatment-resistant Kawasaki disease – using an immunomodulator, such as a corticosteroid or a TNF-alpha blocker, may improve outcomes, though these studies involved relatively small and homogeneous patient populations. It is unknown if these medications could prevent progression of CAA.

Study design

Retrospective multicenter study.

Setting

Two freestanding children's hospitals and one mother-child hospital.

Synopsis

The study identified 121 children diagnosed with Kawasaki disease with CAA (z score 2.5-10) from 2008 through 2017 treated at the three study hospitals. Children with giant CAA at the time of diagnosis (z score greater than 10) or significant preexisting congenital heart disease were excluded.

All study hospitals had protocols for treatment of Kawasaki disease: Center 1 used IVIG and corticosteroids, Center 2 used IVIG and infliximab, and Center 3 used IVIG alone. Patients at all centers also received aspirin. Center 1 used methylprednisolone IV initially, changing to oral prednisolone after clinical improvement. The researchers reviewed the charts of each patient and classified them as having complete or incomplete Kawasaki disease. They assigned z scores for CAA size based on both initial and follow-up echocardiograms. The primary outcome was change in z score of CAA over the first year.

The population of patients treat-

ed at each center was significantly different. Center 1 reported older patients (median age 2.6 vs. 2.0 and 1.1), as well as a higher rate of male patients (83% vs. 77% and 58%). However, there was no difference in baseline z scores between centers. Patients who initially received IVIG and corticosteroids were less likely to require additional therapy because of persistent fever versus those receiving IVIG only, or IVIG and infliximab (0% vs. 21% vs. 14%, $P = .03$).

Patients receiving IVIG and corticosteroids, or IVIG and infliximab, were less likely to have progression of CAA size, with 23% and 24% having an increase in z score of more than 1 versus 58% of those who received IVIG alone. No group had significant differences in maximum z score, the rate of giant aneurysms, or the rate of regression of CAA.

Bottom line

Using IVIG + corticosteroids or IVIG + infliximab versus IVIG alone for children with Kawasaki disease with coronary artery aneurysms decreases the rate of aneurysm enlargement.

Citation

Dionne A et al. Treatment intensifi-



Dr. Stubblefield is a pediatric hospitalist at Nemours/Alfred I. duPont Hospital for Children in Wilmington, Del., and clinical assistant professor of pediatrics at Sidney Kimmel Medical College at Thomas Jefferson University in Philadelphia.

cation in patients with Kawasaki disease and coronary aneurysm at diagnosis. *Pediatrics*. May 2019;e20183341. doi: 10.1542/peds.2018-3341.

Systolic, diastolic BP each tied to adverse CV outcomes

By Andrew D. Bowser

MDedge News

Both systolic and diastolic hypertension independently predict myocardial infarction and strokes, but systolic blood pressure is more strongly linked to adverse outcomes.

That's according to a study of more than 1 million patients and 36 million outpatient blood pressure measurements (*N Engl J Med*. 2019 Jul 18. doi: 10.1056/NEJMoa1803180).

Systolic and diastolic hypertension predicted adverse outcomes at cutpoints of 140/90 and 130/80 mm Hg in the large retrospective cohort study, supporting the recent guideline changes that made blood pressure targets more stringent for higher-risk patients, said lead investigator Alexander C. Flint, MD, of Kaiser Permanente Northern California (KPNC) in Oakland.

"While systolic does count for more, in the fact that it is a stronger driver of the risk of heart attack and stroke, diastolic absolutely does as well, and it does so independently. So we ignore our dia-

stolic hypertension at our own peril," Dr. Flint said.

Systolic hypertension began to overshadow diastolic after the Framingham Heart Study and others that suggested it is a more important predictor of adverse cardiovascular outcomes, Dr. Flint and coauthors said in a report on their study.

Those findings caused some to say diastole should be abandoned, and led to a "near-exclusive focus" on systolic hypertension in a 2000 advisory statement from the National High Blood Pressure Education Program, they say in their report.

While current guidelines emphasize the importance of both systolic and diastolic targets, many clinicians today often assign little importance to diastolic blood pressure values, the report adds.

The study comprised a cohort of approximately 1.3 million outpatients from KPNC who had at least one baseline blood pressure reading in during 2007-2008, and two or more follow-up measurements between 2009 and 2016, for a total of about 36.8 million data points.

Systolic hypertension burden was linked to the composite of MI or stroke, with a hazard ratio of

1.18 (95% confidence interval, 1.17-1.18; P less than .001) per unit increase in z score, according to results of a multivariable regression analysis. Likewise, diastolic hypertension burden was linked to those adverse outcomes, with a hazard ratio of 1.06 (95% CI, 1.06-1.07; P less than .001).

Put in terms of estimated risk of MI or stroke, patients with a systolic blood pressure around 160 mm Hg – 3 standard deviations from the mean – was 4.8%, compared to a predicted risk of just 1.9% for a systolic blood pressure near 136 mm Hg, the investigators said in their report.

Similarly, predicted risk was 3.6% for a diastolic pressure of about 96 mm Hg, also 3 standard deviations from the mean, and 1.9% for a diastolic BP near 81 mm Hg.

"The two are not that separate," Dr. Flint said of the risks associated with systolic and diastolic hypertension at that 3-standard deviation point. Beyond that, increased systolic blood pressure is associated with more risk relative to increased diastolic blood pressure, the logistic regression modeling shows.

Most patients hospitalized with pneumonia receive excessive antibiotics

By Andrew D. Bowser

MDedge News

Two-thirds of patients hospitalized with pneumonia received an excess duration of antibiotics, according to a recent study of more than 6,000 patients.

Longer antibiotic courses did not increase the survival rate or prevent any subsequent health care utilization, authors said; instead, they increased the risk of patient-reported adverse events.

The findings bolster a growing body of evidence showing that short-course therapy for pneumonia is safe and that longer durations are not only unnecessary, but “potentially harmful,” said Valerie M. Vaughn, MD, a hospitalist and assistant professor of medicine at the University of Michigan, Ann Arbor, and coinvestigators.

“Reducing excess treatment durations should be a top priority for antibiotic stewardship nationally,” the

investigators wrote in their report (*Ann Intern Med.* 2019;171:153-63. doi: 10.7326/M18-3640).

The primary analysis of their retrospective cohort study included 6,481 individuals with pneumonia treated at 43 hospitals participating in a statewide quality initiative designed to improve care for hospitalized medical patients at risk of adverse events. About half of the patients were women, and the median age was 70 years. Nearly 60% had severe pneumonia.

The primary outcome of the study was the rate of excess antibiotic therapy duration beyond the shortest expected treatment duration consistent with guidelines. Patients with community-acquired pneumonia (CAP), representing about three-quarters of the study cohort, were expected to have a treatment duration of at least 5 days, while patients with health care-acquired pneumonia (HCAP) were expected to have at least 7 days of treatment.

Overall, 4,391 patients (67.8%) had

antibiotic courses longer than the shortest effective duration, with a median duration of 8 days, and a median excess duration of 2 days, the researchers noted.

The great majority of excess days (93.2%) were due to antibiotic prescribed at discharge, according to Dr. Vaughn and colleagues.

Excess treatment duration was not linked to any improvement in 30-day mortality, readmission rates, or subsequent emergency department visits, they found.

In a telephone call at 30 days, 38% of patients treated to excess said they had gone to the doctor for an antibiotic-associated adverse event, compared with 31% who received appropriate-length courses ($P = .003$).

Odds of a patient-reported adverse event were increased by 5%

for every excess treatment day, the investigators wrote.

Taken together, these findings have implications for patient care, research efforts, and future guidelines, according to Dr. Vaughn and coinvestigators.

“The next iteration of CAP and HCAP guidelines should explicitly recommend (rather than imply) that providers prescribe the shortest effective duration,” they said in a discussion of their study results.

Dr. Vaughn reported no disclosures related to the study. Coauthors reported grants from Blue Cross Blue Shield of Michigan and the Agency for Healthcare Research and Quality, personal fees from Wiley Publishing, and royalties from Wolters Kluwer Publishing and Oxford University Press, among other disclosures.

Opioid use curbed with patient education

By Heidi Splete

MDedge News

Patients given lower prescription quantities of opioid tablets with and without opioid education used significantly less of the medication compared with those given more tablets and no education, according to data from 264 adults and adolescents who underwent anterior cruciate ligament (ACL) surgery.

Although lower default prescription programs have been shown to reduce the number of tablets prescribed, “the effect of reduced prescription quantities on actual patient opioid consumption remains undetermined,” wrote Kevin X. Farley, BS, of Emory University, Atlanta, and colleagues (*JAMA.* 2019 June 25;321(24):2465-7).

The researchers examined whether patients took fewer tablets if given fewer, and whether patient education about opioids further reduced the number of tablets taken.

The study population included adults and adolescents who underwent ACL surgery at a single center. The patients were divided into three groups: 109 patients received 50 opioid tablets after surgery, 78 received 30 tablets plus education prior to

surgery about appropriate opioid use and alternative pain management, and 77 received 30 tablets but no education on opioid use.

Patients given 50 tablets consumed an average of 25 tablets for an average of 5.8 days. By contrast, patients given 30 tablets but no opioid education consumed an average of 16 tablets for an average of 4.5 days, and those given 30 tablets and preoperative education consumed an average of 12 tablets for an average of 3.5 days.

In addition, patients given 30 tablets reported lower levels of constipation and fatigue compared with patients given 50 tablets. No differences were seen in medication refills among the groups.

The findings were limited by several factors including the use of data from a single center, the lack of randomization, and the potential for recall bias, the researchers noted. However, the results suggest that prescribing fewer tablets may further reduce use, as each group consumed approximately half of the tablets given, the researchers added.

“Further investigation should evaluate whether similar opioid stewardship and education protocols would be successful in other patient populations,” they said.



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Subset of patients benefits from in-hospital sleep apnea screening

Performing in-hospital sleep studies should be an easy sell

By Doug Brunk

MDedge News

In the clinical opinion of Richard J. Schwab, MD, any hospitalized patient with a body mass index of 35 kg/m² or greater should undergo overnight pulse oximetry testing.

"Many diseases are adversely affected by sleep apnea, including myocardial infarction, hypertension, a cerebrovascular accident, pulmonary hypertension, atrial fibrillation, diabetes, and congestive heart failure," Dr. Schwab, interim chief of the University of Pennsylvania Perelman School of Medicine's Division of Sleep Medicine, said at the annual meeting of the Associated Professional Sleep Societies.

"Continuous positive airway pressure [CPAP] may help heart failure patients and reduce 30-day readmission rates, which has important financial implications in the University of Pennsylvania Health System. CPAP may also decrease the rapid responses and cardiac arrests at night," he said.

A few years ago, Dr. Schwab and his associates set out to determine whether PAP adherence in cardiac patients with sleep-disordered breathing reduced readmission rates 30 days after discharge (*J Clin Sleep Med.* 2014;10:1051-9). They evaluated 104 consecutive cardiovascular hospitalized patients reporting symptoms of sleep-disordered breathing (SDB) between January of 2012 and March of 2013, and collected demographic data, SDB type, PAP adherence, and data regarding 30-day hospital readmission/ED visits. Apnea was scored when there was a 90% or greater cessation of airflow detected through the nasal pressure sensor. Hypopnea was scored when there was at least a 50% reduction in airflow with an associated 3% or greater oxyhemoglobin desaturation. Central sleep apnea (CSA) was scored when there was a 90% or greater cessation of airflow detected through the nasal pressure sensor and no effort in the thorax and abdomen. If more than 50% of the apneas were central, the SDB was classified as CSA. If more than 50% of apneas were obstructive in nature, it was considered obstructive sleep apnea (OSA).

The mean age of the patients was 59 years, 63% were male, their mean body mass index was 34 kg/m², 87% had heart failure, and 82% had hypertension. Of the 104 patients, 81 had SDB and 23 did not. The 30-day readmission rate was 29% in patients who did not use PAP, 30% in partial users, and 0% in full users (*P* = .0246).

The researchers found that 81 patients (78%) had sleep disordered breathing. Of these, 65 (80%) had OSA while 16 (20%) had CSA. The study demonstrated that performing inpatient sleep studies was feasible. "Our study indicated that SDB is common in hospitalized cardiac patients, with the majority of patients manifesting OSA," said Dr. Schwab, medical director of the Penn Sleep Centers. "The data suggest that hospital

readmission and ED visits 30 days after discharge were significantly lower in patients with cardiac disease and SDB who adhere to PAP treatment than those who are not adherent."

Dr. Schwab is part of a research team conducting a longer study with ResMed to examine 30-, 60-, and 90-day readmission rates in cardiac inpatients newly diagnosed with OSA and started on auto-PAP (APAP). They plan to evaluate the ejection fraction during hospitalization and in



COURTESY DR. KRISHNA SUNDAR

follow-up, as well as the effect of an in-laboratory sleep study at 1 month. The long-term follow-up is planned for 3 years.

Launching an inpatient sleep apnea consult service in the hospital makes sense, Dr. Schwab continued, because home sleep studies are approved for the diagnosis of sleep apnea, APAP can determine optimal CPAP settings, insurance will cover CPAP with a home or inpatient sleep study, and patients can get CPAP/APAP at or before discharge. "Sleep techs or respiratory therapists can perform these sleep studies," he said. At Penn, a nurse practitioner (NP) runs this service using the Alice NightOne home sleep testing device and the WatchPAT portable sleep apnea diagnostic device.

The notion of performing in-hospital sleep studies should be an easy sell to cardiologists and hospital administrators, Dr. Schwab said, because the program will decrease hospital readmissions, "which is going to save the hospital a lot of money. In addition, these patients can come back for in-laboratory sleep studies. There is also increased revenue from the consults and progress notes, and the professional fee for sleep study interpretation. The most challenging part of the inpatient sleep consult service is trying to get these patients to follow up in the sleep center with the NP."

Dr. Schwab is an investigator for the recently launched Penn Medicine Nudge Unit Project, which is funded by the National Institutes of Health. The project includes a multidisciplinary

team of providers from the Hospital of the University of Pennsylvania, Penn Presbyterian Medical Center, and Penn Medicine Risk Management. If an inpatient has a BMI of 35 kg/m² or greater, the clinician will be "nudged" via an enterprise messaging system (EMS) prompt to order an inpatient sleep oximetry. "They have to respond to that nudge," Dr. Schwab said. "If the oximetry is consistent for sleep apnea, there will be another nudge to consult with the sleep medicine team. If the oximetry is negative, they will be nudged to get an outpatient consult with the sleep medicine team." For patients undergoing preadmission testing for any type of surgery who score 4 or more on the STOP-Bang questionnaire (*Chest.* 2016;149:631-38), the clinician is "nudged" to order an outpatient sleep consultation.

Benefits to such an approach, he said, include a decrease in resource allocation, shorter hospital stays, patient perceived improvement in quality of sleep, improved patient survey scores, and the fact that apnea treatment may decrease the need for rapid response. "It also reduces medical-legal concerns, improves patient outcomes, decreases readmissions, and generates revenue from inpatient and outpatient sleep studies," Dr. Schwab said. Barriers to such an approach include the fact that there is no defined pathway at many institutions for recognizing and referring suspected OSA patients. "There is often a lack of care coordination between primary providers and sleep medicine, and sleep is viewed as ambulatory care, not as a part of inpatient care," he said.

Last year, Dr. Schwab and his colleagues at UPenn conducted a pilot study to develop and test a pathway for identifying OSA in high-risk inpatient and preadmission patient populations. Of 389 patients admitted between Aug. 20 and Sept. 20 of 2018, 43 had a BMI of 35 kg/m² or greater. Of these, 10 were screened with oximetry and 8 were positive for severe apnea. Of these eight cases, five inpatient consults were ordered, one outpatient consult was ordered, one patient had no consult ordered, and one patient was discharged before the consult was ordered.

Dr. Schwab also performed a pilot study in patients undergoing preoperative testing with the STOP-Bang questionnaire. "When we piloted this, there were over 200 patients who could have been sent to the outpatient sleep consult service, and we referred none," Dr. Schwab said. "We are just starting to implement a program to screen them. We can treat these people for their sleep apnea and prevent chronic adverse sequelae associated with this disease."

Both the inpatient and outpatient screening programs for sleep apnea are built within their electronic medical record. "Building this within your EMR requires effort, but it's doable," he said.

Dr. Schwab disclosed that he has received grants from the National Institutes of Health, ResMed, and Inspire Medical Systems.

Minimizing malpractice risk for hospitalists

The role of good documentation

By Nagendra Gupta, MD

In a medical malpractice lawsuit, the entire lawsuit – including the plaintiff's allegations as well as the physician's defense – is structured around the patient's medical record. It has been proven beyond doubt that a well-written note can go a long way in formulating a good defense against lawsuits. Your documentation is not only a piece of communication with the interdisciplinary team, it is a reflection of your thought process and logical reasoning that led you to adapt a particular treatment approach.

According to a 2017 Medscape Malpractice report, most physicians cited better chart documentation as the one thing in hindsight that would have avoided the lawsuit. From a practical standpoint, good documentation is as important in defending a lawsuit as is good communication in preventing one.

Traditionally, the way we are trained and the way we practice have been different. During residency training, when it comes to documentation, much attention is focused on accuracy and details within the note, with little impetus to improve the documentation from a medico-legal defense standpoint. The same goes true for practicing physicians; a large amount of emphasis is placed on structuring a note in accordance with regulatory and compliance requirements, whereas there is no incentive to spend time in improving documentation from a medico-legal standpoint.

Given the importance of appropriate documentation, it only makes sense that we incorporate some simple rules into our routine in a way that excellent documentation becomes a habit. Practicing these routinely will not only enhance the communication with in the care team but will also serve as a brick wall of defense when it comes to a lawsuit.

A surprisingly uncommon term used to describe this is called *Defensible Documentation*, which basically implies that the documentation should be able to justify and support that the quality of care provided was reasonable and appropriate. And the three most

crucial elements of a highly defensible note are:

- **Completeness**
- **Correctness**
- **Internal consistency**

Completeness refers to incorporating all clinically relevant information within the note. This includes not only all diagnoses along with their treatment plans but also our logical thought process and the reasoning behind doing certain things in a certain manner. This all goes far beyond meeting the criteria set aside by the Centers for Medicare & Medicaid Services for billing requirements.

“Given the importance of appropriate documentation, it only makes sense that we incorporate some simple rules into our routine in a way that excellent documentation becomes a habit.”

A common misconception among physicians – especially hospitalists – is that documenting three or four major diagnoses to meet a certain level of acuity serves this purpose. While this is true for billing, missing out medically relevant information in a progress note can lead to serious trouble when it comes to a lawsuit.

A hospitalist recently encountered a classic example of this situation at a large tertiary hospital; this hospitalist was treating a critically ill patient for Septic Shock. Two days into the course of treatment, the patient developed Atrial Fibrillation, following which, Cardiology was consulted, and the patient was started on a Heparin drip. The hospitalist, however, forgets to add this new diagnosis as well as the treatment plan into his progress note, which is copied as is by the new hospitalist taking over the following week. The patient subsequently passed away from complications related to bleeding; when the chart was reviewed, the first question that was asked was: “Were you even aware that your patient was on a Heparin drip? It's not mentioned anywhere in your note.”

Questions such as this will be very difficult to defend if there is missing documentation from our end. We can sometimes get extremely busy, which can lead to complacency, but if we do not pay meticulous attention to completeness, a lot of time will be spent dealing with the consequences.

Not only that, during a trial, which can be months or years later, it will also be difficult to effectively recall the events if the documentation was inadequate or missing key elements.

The next important element, **Correctness** of the documentation, involves multiple elements and goes hand in hand with completeness. While most physicians do not intentionally enter incorrect information into their notes, the failure to mention the most updated test results or diagnoses will inevitably be linked with the quality of care provided. Including outdated or incorrect information in a progress note simply implies lack of attention to detail on the part of the physician, which in turn affects his or her credibility during a deposition or a trial. Simple things, like poor grammar, can sometimes be used to shred our credibility into pieces in order to make our defense look weak.

The final and the most important element in my opinion is the **Internal consistency** within the notes, which means that the information presented under one segment of a note should be consistent with the information presented in another segment. If there are elements of our note that are conflicting, it undoubtedly sets us up for trouble during a deposition. For example, documenting that a patient had a normal neurological exam with intact cognition under the physical exam, and subsequently adding Advanced Dementia as one of the diagnoses is clearly a conflicting scenario. Situations like this can open up the ability of the physician to evaluate and treat a patient for questioning and pose a huge threat to the physician's credibility in general.

Even though the above three elements can be considered as the more important elements of documentation, there certainly other simple principles that can be applied across the board, which can be very helpful.

Documenting our discussions



Dr. Gupta is a hospitalist and medical director of the hospitalist program at Texas Health Arlington Memorial Hospital, in Arlington. This article appeared initially on SHM's official blog, *The Hospital Leader*.

with families regarding advance directives and those related to side effects of important medications, such as anticoagulants, is very important. Likewise, it is also crucial to document a patient's understanding of the consequences in case an appropriate treatment plan is rejected.

At its best, the medical record should formulate a clear and a complete plan that legibly communicates pertinent information. Effective documentation captures these steps in a format that may derail erroneous charges or immediately exculpate the wrongly accused. It not only credits competent care but also forms a tight defense against allegations of malpractice by aligning the patient and physician expectations.

Conclusion: Are your notes defensible?

A well-documented note can come in handy should we ever face a malpractice situation and have to justify what was done in order to defend our actions. Conversely, incomplete or inaccurate documentation leaves us more vulnerable and puts us in a tight spot.

An average hospitalist has over 2,500 encounters in a year. The probability of being sued is low enough, such that the benefits are not apparent in real-time. However, thorough and thoughtful documentation can vaccinate against future lawsuits. Guarding against a lengthy litigation process, proper documentation may be the ultimate time saver.

Tips for new attendings

By Vineet Arora, MD, MAPP, MHM

It is that time of year ... it's hotter, more humid, and more hazy. However, while most of the academic world slows down in the summer for sabbatical, hospitals everywhere are frantically orienting new interns before unleashing them to take care of patients ... supervised, of course.

While much attention is paid to the "July effect" and the start of new interns, it's worth noting that many times residents, attendings, nurses, pharmacists, and others are VERY in tune with new interns starting and stand at the ready to not only teach, but also ensure that patients receive safe care. In some ways, it's an example of the Reason's Swiss Cheese Model in hyperdrive. That is why attending in July is harder. Everyone knows it.

Surprisingly, little attention is paid to new attendings, though, who often also start in July. This year, we are onboarding 20 new hospitalists at UChicago Medicine. In discussions with other colleagues elsewhere, we are not alone. While Twitter is rife with #tipsfornewdocs, I do not often see #tipsfornew-attendings who often may be in greater need than the interns who have the supportive culture and environment that being in training often offers. So here are my top tips for new attendings.

- **It's ok to say I don't know.** Many attendings have angst about being asked a question by a patient, nurse, or a member of their team that they will not know the answer to. It's absolutely okay to say, "Great question – I don't have the answer at the moment, but let me look it up and get back to you." I often email answers to questions that have come up on my team later that evening or the next day so we can discuss in a more robust fashion.
- **You are a supervisor, not a friend.** Many new resident graduates fall into this trap of wanting to be the uber cool attending who not only trusts their residents but is also their friend. Beware of this trap. Your residents do not want a friend; they want someone they RESPECT. And respect means sometimes you will disagree or push back on decisions.
- **Don't ask what; ask why.** It's often easy to fall into this trap of asking questions to understand what your team is thinking, and many questions focus on "what should we do." It is often easy to guess what needs to happen – start fluids for hypotension for example. The key to really getting at whether learners truly appreciate the nuances of medical care is to ask "why." Why do you think that is what we should do? Often the why allows you to detect areas that need more clarification or make a teaching point.
- **Don't forget about the patient.** Keep in mind that with all the check boxes that you or your residents may be focused on, it is easy to lose sight of what the patient cares about most. I never assume patients understand why they are in the hospital or what their top goal is. Often, I ask, "Can you tell me in your own words why you are here in the hospital?" This is often very revealing and offers an opportunity to really ensure that patients understand their care and also can reflect on why they need to be in the hospital.
- **Get a coach.** No matter what your clinical context will be, it is likely you will benefit from some targeted coaching on how to be more efficient, wrestle with the electronic health record, and stay on top of your CME requirements or your career in your new role.
- **Find your friends.** Medicine is hard, and being an attending is often very hard. A good friend goes a long way to ensuring that your good days are better and that your bad days are not spiraling out of



Dr. Arora is associate chief medical officer, clinical learning environment at University of Chicago Medicine and assistant dean for scholarship and discovery at the University of Chicago Pritzker School of Medicine. This article appeared initially on SHM's official blog, *The Hospital Leader*.

control. They can also ease your imposter syndrome and put things in perspective.

No matter where and when you are starting your career, a little bit of advice always goes a long way. Let us know what your tips are.

FDA approves Recarbrio for cUTI, cIAI treatment

By Lucas Franki
MDedge News

The Food and Drug Administration has approved Recarbrio for the treatment of complicated urinary tract infections (cUTI) and complicated intra-abdominal infections (cIAI) in adults. Recarbrio is a three-drug combo injection containing imipenem/cilastatin, an antibiotic previously approved by the FDA, and relebactam, a beta-lactamase inhibitor.

The efficacy of Recarbrio was supported by data on the efficacy of imipenem/cilastatin in the treatment of cUTI and cIAI and by in vitro studies and animal models of infection with treatment by rele-

bactam. The safety was assessed in a pair of clinical studies, one that assessed cUTI patients and another that assessed cIAI patients.

The most common adverse events reported were nausea, diarrhea, headache, fever, and increased liver enzymes. Treatment with Recarbrio is not recommended in patients taking ganciclovir, valproic acid, or divalproex sodium because there is an increased risk of seizures.

"It is important that the use of Recarbrio be reserved for situations when there are limited or no alternative antibacterial drugs for treating a patient's infection," said Ed Cox, MD, MPH, of the Office of Antimicrobial Products in the Center for Drug Evaluation and Research.



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Cellulitis ranks as top reason for skin-related pediatric inpatient admissions

By Doug Brunk

MDedge News

AUSTIN, TEX. – The majority of skin-related pediatric inpatient admissions in the United States involve treatment for cellulitis, results from a large study of national data showed.

“Skin conditions significantly affect pediatric inpatients, and dermatologists ought be accessible for consultation to enhance care and costs,” the study’s first author, Marcus L. Elias, said in an interview prior to the annual meeting of the Society for Pediatric Dermatology.

According to Mr. Elias, who is a 4th-year medical student at Rutgers New Jersey Medical School–Newark, few national studies on skin diseases for pediatric inpatients have been published in the medical literature. Earlier this year, researchers examined inpatient dermatologic conditions in patients aged 18 years and older (*J Am Acad Dermatol* 2019;80[2]:425-32), but Mr. Elias and associates set out to analyze the

burden of inpatient pediatric dermatologic conditions on a national basis. “We wanted to see if the same conditions that were hospitalizing adults were also hospitalizing kids,” he said. “We found that this was indeed the case.”



Mr. Elias

“We wanted to see if the same conditions that were hospitalizing adults were also hospitalizing kids. ... We found that this was indeed the case.”

The researchers queried the National Inpatient Sample database for all cases involving patients aged 18 years and younger during 2001-2013. The search yielded a sample of 16,837,857 patients. From this, the researchers analyzed diagnosis-related groups for dermatologic conditions denoting the principal diagnosis at discharge, which left a final sample

of 84,090 patients. Frequency and chi-squared tests were used to analyze categorical variables.

More than half of patients (54%) were male, 36% were white, 48% had Medicaid insurance, and 43% had private insurance. Mr. Elias reported that the median length of stay for patients was 2 days and the median cost of care was \$6,289.50 for each case. More than three-quarters of pediatric inpatients with dermatologic diagnoses were treated for “cellulitis”

(66,147 cases, or 79%), with most cases involving the legs (16,875 cases, or 20%). Other pediatric inpatients were admitted for “minor skin disorder without complications” (5,458 cases, or 7%), and “minor skin disorder with complications” (2,822 cases, or 3%). A total of 64 patients died during the study period. Of these, 31 cases (50%) involved “skin graft

and/or debridement of skin ulcer or cellulitis without complications,” the study found.

“We were surprised that the major cause of mortality for our patients was classified as ‘skin graft and/or debridement of skin ulcer or cellulitis without complications,’ as a similar diagnosis-related groupings exist denoting that complications did arise,” Mr. Elias said. “Still, it is not possible for us to determine if the mortality was from the skin graft/debridement or another cause entirely. It is possible that the procedure was without complications, only to have the patient succumb to an ancillary process.”

He acknowledged certain limitations of the study, including the fact that the function of dermatologic consults for hospitalized patients was not examined. “We also cannot draw conclusions as to whether improved outpatient therapy reduces the need for hospitalization,” he said. Mr. Elias reported having no financial disclosures.

CDC: Look for early symptoms of acute flaccid myelitis, report suspected cases

By Jeff Craven

MDedge News

Watch for the symptoms of acute flaccid myelitis early and report any suspected cases to your health department, the Centers for Disease Control and Prevention said in a July telebriefing.

Acute flaccid myelitis (AFM) is defined as acute, flaccid muscle weakness that occurs less than 1 week after a fever or respiratory illness. Viruses, including enterovirus, are believed to play a role in AFM, but the cause still is unknown. The disease appears mostly in children, and the average age of a patient diagnosed with AFM is 5 years.

“Doctors and other clinicians in the United States play a critical role,” Anne Schuchat, MD, principal deputy director of the CDC, said in the telebriefing. “We ask for your help with early recognition of patients with AFM symptoms, prompt specimen collection for testing, and immediate reporting of suspected AFM cases to health departments.”

While there is no proven treatment for AFM, early diagnosis is critical to getting patients the best care possible, according to a Vital Signs report released today. This means that clinicians should not wait for the CDC’s case definition before diagnosis, the CDC said.

“When specimens are collected as soon as possible after symptom onset, we have a better chance of understanding the causes of AFM, these recurrent outbreaks, and developing a diagnostic test,” Dr. Schuchat said. “Rapid reporting also helps us to identify and respond to outbreaks early and alert other clinicians and the public.”

AFM appears to follow a seasonal and biennial pattern, with the number of cases increasing mainly in the late summer and early fall. As the season approaches where AFM cases increase, CDC is asking clinicians to look out for patients with suspected AFM so cases can be reported as early as possible.

Since the CDC began tracking AFM, the number of cases has risen every 2 years. In 2018, there were 233 cases in 41 states, the highest number of reported cases since the CDC began tracking AFM following an outbreak in 2014, according to a Vital Signs report. Overall, there have been 570 cases of AFM reported in 48 states and the District of Columbia since 2014.

There is yet to be a confirmatory test for AFM, but clinicians should obtain cerebrospinal fluid,

serum, stool, and nasopharyngeal swab from patients with suspected AFM as soon as possible, followed by an MRI. AFM has unique MRI features, such as gray-matter involvement, that can help distinguish it from other diseases characterized by acute weakness.

In the Vital Signs report, which examined AFM in 2018, 92% of confirmed cases had respiratory symptoms or fever, and 42% of confirmed cases had upper-limb involvement. The median time from limb weakness to hospitalization was 1 day, and time from weakness to MRI was 2 days. Cases were reported to the CDC a median of 18 days from onset of limb weakness, but time to reporting ranged between 18 days and 36 days, said Tom Clark, MD, MPH, deputy director of the division of viral diseases at CDC.

“This delay hampers our ability to understand the causes AFM,” he said. “We believe that recognizing AFM early is critical and can lead to better patient management.”

In lieu of a diagnostic test for AFM, clinicians should make management decisions through review of patient symptoms, exam findings, MRI, and other test results, and in consulting with neurology experts. The Transverse Myelitis Association also has created a support portal for 24/7 physician consultation in AFM cases.



Dr. Schuchat

What's new in pediatric sepsis

The “Golden Hour” has been overemphasized

By Bruce Jancin

MDedge News

LJUBLJANA, SLOVENIA – The dogma of the “Golden Hour” for the immediate management of pediatric sepsis has been oversold and actually is based upon weak evidence, Luregn J. Schlapbach, MD, asserted at the annual meeting of the European Society for Paediatric Infectious Diseases.

The true Golden Hour – that is, the time frame within which it's imperative to administer the sepsis bundle comprising appropriate antibiotics, fluids, and inotropes – is probably more like 3 hours.

“The evidence suggests that up to 3 hours you don't really have a big difference in outcomes for sepsis. If you recognize shock there's no question: You should not even wait 1 hour. But if you're not certain, it may be better to give up to 3 hours to work up the child and get the senior clinician involved before you make decisions about treatment. So I'm not advocating to delay anything, I'm advocating that, if you're not sure this is sepsis, allow yourself an hour or 2 to make a proper investigation,” said Dr. Schlapbach, a pediatric intensivist at the Child Health Research Center at the University of Queensland in South Brisbane, Australia.

The problem with a 1-hour mandate for delivery of the sepsis bundle, as recommended in guidelines by the Surviving Sepsis Campaign and the American College of Critical Care Medicine, and endorsed in quality improvement initiatives, is that the time pressure pushes physicians to overprescribe antibiotics to children who don't actually have a serious bacterial infection. And that, he noted, contributes to the growing problem of antimicrobial resistance.

“You may have a child where you're not too sure. Usually you would have done a urine culture because UTI [urinary tract infection] is quite a common cause of these infections, and many of these kids aren't necessarily septic. But if people tell you that within 1 hour you need to treat, are you going to take the time to do the urine culture, or are you just going to decide to treat?” he asked rhetorically.

Dr. Schlapbach is a world-renowned pediatric sepsis researcher. He is far from alone in his reserva-



Dr. Luregn J. Schlapbach

tions about the Golden Hour mandate.

“This is one of the reasons why IDSA [the Infectious Diseases Society of America] has not endorsed the Surviving Sepsis Campaign,” according to the physician, who noted that, in a position statement, IDSA officials have declared that discrimination of sepsis from noninfectious conditions remains a challenge, and that a 60-minute time to antibiotics may jeopardize patient reassessment (Clin Infect Dis. 2018 May 15;66[10]:1631-5).

Dr. Schlapbach highlighted other recent developments in pediatric sepsis.

The definition of adult sepsis has changed, and the pediatric version needs to as well

The revised definition of sepsis, known as Sepsis-3, issued by the International Sepsis Definition Task Force in 2016 notably dropped systemic inflammatory response syndrome (SIRS), as a requirement for sepsis (JAMA. 2016;315[8]:801-10). The revised definition characterizes sepsis as a dysregulated host response to infection resulting in life-threatening organ dysfunction. But Sepsis-3 is based entirely on adult data and is not considered applicable to children.

The current Pediatric Sepsis Consensus Conference definition dates back to 2005. A comprehensive revision is getting underway. It, too,

is likely to drop SIRS into the wastebasket, Dr. Schlapbach said.

“It is probably time to abandon the old view of sepsis disease progression, which proposes a progression from infection to SIRS to severe sepsis with organ dysfunction to septic shock, because most children with infection do manifest signs of SIRS, such as tachycardia, tachypnea, and fever, and these probably should be considered as more of an adaptive rather than a maladaptive response,” he explained.

The goal of the pediatric sepsis redefinition project is to come up with something more useful for clinicians than the Sepsis-3 definition. While the Sepsis-3 concept of a dysregulated host response to infection sounds nice, he explained, “we don't actually know what it is.

“One of the challenges that you all know as pediatricians is that children who develop sepsis get sick very, very quickly. We all have memories of children who we saw and may have discharged, and they were dead 12 hours later,” he noted.

Indeed, he and others have shown in multiple studies that up to 50% of pediatric deaths caused by sepsis happen within 24 hours of presentation.

“So whatever happens, it happens very quickly. The true question for us is actually how and why do children progress from no organ dysfunction, where the mortality is close to zero, to organ dysfunction,

where all of a sudden mortality jumps up dramatically. It's this progression that we don't understand at all,” according to Dr. Schlapbach.

The genetic contribution to fulminant sepsis in children may be substantial

One-third of pediatric sepsis deaths in high-income countries happen in previously healthy children. In a proof-of-concept study, Dr. Schlapbach and coinvestigators in the Swiss Pediatric Sepsis Study Group conducted exome-sequencing genetic studies in eight previously healthy children with no family history of immunodeficiency who died of severe sepsis because of community-acquired *Pseudomonas aeruginosa* infection. Two of the eight had rare loss-of-function mutations in genes known to cause primary immunodeficiencies. The investigators proposed that unusually severe sepsis in previously healthy children warrants exome sequencing to look for underlying previously undetected primary immunodeficiencies. That's important information for survivors and/or affected families to have, they argued (Front Immunol. 2016 Sep 20;7:357. eCollection 2016).

“There are some indications that the genetic contribution in children with sepsis may be larger than previously assumed,” he said.

The longstanding practice of fluid bolus therapy for resuscitation in pediatric sepsis is being reexamined

The FEAST (Fluid Expansion as Supportive Therapy) study, a randomized trial of more than 3,000 children with severe febrile illness and impaired perfusion in sub-Saharan Africa, turned heads with its finding that fluid boluses significantly increased 48-hour mortality (BMC Med. 2013 Mar 14;11:67).

Indeed, the FEAST findings, supported by mechanistic animal studies, were sufficiently compelling that the use of fluid boluses in both pediatric and adult septic shock is now under scrutiny in two major randomized trials: RIFTS (the Restrictive IV Fluid Trial in Severe Sepsis and Septic Shock), and CLOVERS (Crystalloid Liberal or Vasopressors Early Resuscitation in Sepsis). Stay tuned.

Dr. Schlapbach reported having no financial conflicts regarding his presentation.

BRUCE JANCIN/MDEDGE NEWS

Medicare may best Medicare Advantage at reducing readmissions

By Gregory Twachtman

MDedge News

Although earlier research may suggest otherwise, traditional Medicare may actually do a better job of lowering the risk of hospital readmissions than Medicare Advantage, new research suggests.

Researchers used what they described as “a novel data linkage” comparing 30-day readmission rates after hospitalization for three major conditions in the Hospital Readmissions Reduction Program for patients using traditional Medicare versus Medicare Advantage. Those conditions included acute MI, heart failure, and pneumonia.

“Our results contrast with those of previous studies that have reported lower or statistically similar readmission rates for Medicare Advantage beneficiaries,” Orestis A. Panagiotou, MD, of Brown University, Providence, R.I., and colleagues wrote in a research report published in *Annals of Internal Medicine*.

In this retrospective cohort study, the researchers linked data from 2011 to 2014 from the Medicare Provider Analysis and Review (MedPAR) file to the Healthcare Effectiveness Data and Information Set (HEDIS).

The novel linkage found that HEDIS data underreported hospital admissions for acute MI, heart fail-

ure, and pneumonia, the researchers stated. “Plans incorrectly excluded hospitalizations that should have qualified for the readmission measure, and readmission rates were substantially higher among incorrectly excluded hospitalizations.”

Despite this, in analyses using the linkage of HEDIS and MedPAR, “Medicare Advantage beneficiaries had higher 30-day risk-adjusted readmission rates after [acute MI, heart failure, and pneumonia] than did traditional Medicare beneficiaries,” the investigators noted.

Patients in Medicare Advantage had lower unadjusted readmission rates compared with those in traditional Medicare (16.6% vs. 17.1% for acute MI; 21.4% vs. 21.7% for heart failure; and 16.3% vs. 16.4% for pneumonia). After standardization, Medicare Advantage patients had higher readmission rates, compared with those in traditional Medicare (17.2% vs. 16.9% for acute MI; 21.7% vs. 21.4% for heart failure; and 16.5% vs. 16.0% for pneumonia).

The study authors added that, while unadjusted readmission rates were higher for traditional Medicare beneficiaries, “the direction of the difference reversed after standardization. This occurred because Medicare Advantage beneficiaries have, on average, a lower expected readmission risk [that is, they are ‘healthier’].” Prior studies have doc-

umented that Medicare Advantage plans enroll beneficiaries with fewer comorbid conditions and that high-cost beneficiaries switch out of Medicare Advantage and into traditional Medicare.

The researchers suggested four reasons for the differences between the results in this study versus others that compared patients using Medicare with those using Medicare Advantage. These were that the new study included a more comprehensive data set, analyses with comorbid conditions “from a well-validated model applied by CMS [Centers for Medicare & Medicaid Services],” national data focused on three conditions included in the Hospital Readmissions Reduction Program, and patients discharged to places other than skilled nursing facilities and inpatient rehabilitation facilities.

Authors of an accompanying editorial called for caution to be used in interpreting Medicare Advantage enrollment as causing an increased readmission risk.

“[The] results are sensitive to adjustment for case mix,” wrote Peter Huckfeldt, PhD, of the University of Minnesota, Minneapolis, and Neeraj Sood, PhD, of the University of Southern California, Los Angeles, in the editorial published in *Annals of Internal Medicine* (2019 Jun 25. doi: 10.7326/M19-1599). “Using diagnosis codes on hospital claims for case-mix

adjustments may be increasingly perilous. ... To our knowledge, there is no recent evidence comparing the intensity of diagnostic coding between clinically similar [traditional Medicare] and [Medicare Advantage] hospital admissions, but if [traditional Medicare] enrollees were coded more intensively than [Medicare Advantage] enrollees, this could lead to [traditional Medicare] enrollees having lower risk-adjusted readmission rates due to coding practices.”

The editorialists added that using a cross-sectional comparison of Medicare Advantage and traditional Medicare patients is concerning because a “key challenge in estimating the effect of [Medicare Advantage] is that enrollment is voluntary,” which can lead to a number of analytical concerns.

The researchers concluded that their findings “are concerning because CMS uses HEDIS performance to construct composite quality ratings and assign payment bonuses to Medicare Advantage plans.

“Our study suggests a need for improved monitoring of the accuracy of HEDIS data,” they noted.

The National Institute on Aging provided the primary funding for this study. A number of the authors received grants from the National Institutes of Health during the conduct of the study. No other relevant disclosures were reported.

MedPAC to Congress: End ‘incident-to’ billing

By Gregory Twachtman

MDedge News

Get rid of “incident-to” billing and have nurse practitioners and physician assistant bill Medicare under their own numbers – that’s the unanimous recommendation the Medicare Payment Advisory Commission made in its June report to Congress.

Incident-to billing occurs when an advanced practicing registered nurse (APRN) or a physician assistant (PA) performs a service but bills Medicare under the physician’s national provider number and receives full physician fee schedule payment, as opposed to 85% of the fee under their own number.

“Medicare beneficiaries increasingly use APRNs and PAs for both primary and specialty care,” according to MedPAC’s June report. “APRNs are furnishing a larger share and a greater variety of services for Medicare bene-

ficiaries than they did in the past. Despite this growing reliance, Medicare does not have a full accounting of the services delivered and beneficiaries treated.”

Currently, identical coding requirements obscure whether the physician or the APRN/PA is providing the service, making it difficult to track volume and quality.

MedPAC estimated that, in 2016, 17% of all nurse practitioners billed all their services as incident to, as that was the number of nurse practitioners who never appeared in the performing provider field for reimbursement but ordered services/drugs or at least one Medicare fee-for-service beneficiary.

Another 34% billed some of their services as incident to as their name appeared at least once in the performing provider they ordered services/drugs for, but ordered more services/drugs for patients where they were not listed as the performing provider.

That leaves just about half (49%) who did not bill their services as incident to.

Requiring APRNs and PAs to bill directly for all of their services provided would update Medicare’s payment policies to better reflect current clinical practice, according to the MedPAC report. “In addition to improving policy makers’ foundational knowledge of who provides care for Medicare beneficiaries, direct billing could create substantial benefits for the Medicare program, beneficiaries, clinicians, and researchers that range from improving the accuracy of the physician fee schedule, reducing expenditures, enhancing program integrity, and allowing for better comparisons between cost and quality of care provided by physicians and APRNs/PAs.”

At their October 2018 meeting, MedPAC commissioners discussed how to appropriately compensate APRNs and PAs, should incident-to billing be eliminated; they ultimately recommended maintaining the 85% rate.



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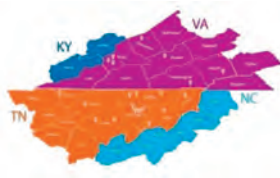
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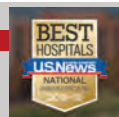
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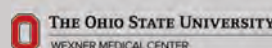
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THE Hospitalist

The 'fun' in leader-fun-ship

Add value to relationships, loyalty, commitment

By Leonard J. Marcus, PhD

Leadership and “fun” are not often linked in the same sentence, let alone in the same word. However, as a student, observer, and teacher of leadership, I find that leaders who are having fun in their practice deftly share the energy, engagement, appeal, dedication, exuberance, and pleasure with others.

Imagine going to work and meeting all those qualities at the front door. Leaders who are having fun impart that same joy to others. It's a great source of motivation, problem-solving capacity, and morale enhancement. And when the going gets tough, it helps you and others make it through.

“Leadership is a lot of work, going above and beyond your clinical duties. Many arrive at leadership positions without the requisite training and preparation, and success at leading can be elusive for reasons you can't control. ... For some leaders, it is an oxymoron to place leadership and fun together.”

What takes the fun out of leadership? There are difficult decisions, complicated personalities, messy histories, conflict, and, of course, the “buck stops here” responsibility. Leadership is a lot of work, going above and beyond your clinical duties. Many arrive at leadership positions without the requisite training and preparation, and success at leading can be elusive for reasons you can't control. There are budget constraints, difficult personalities, laws, and rules. For some leaders, it is an oxymoron to place leadership and fun together. For them, leadership is not fun.

At the 2018 Society of Hospital Medicine Leadership Academy in Vancouver, this combination of fun and leadership arose in a number of my conversations. I asked people if they were having fun. I heard the enjoyment, excitement, amusement, and playfulness of leading. And I could see these leaders – who found fun in their work – were transmitting those very qualities to their followers. They talked about exceptional productivity, expanded programs, heightened commitment, and a knack for overcoming occasional setbacks. In many ways, “work” works better when people are having fun.

How might putting fun into your leadership style, practices, and assessment make you a more effective leader? Start with our definition of leadership: “People follow you.” Whether people follow you, in fact, has to do with a lot more than

just fun. Your clinical expertise and skills, your management capabilities, and your devotion to the job all are ingredients in what makes you an effective leader. Add fun into the equation and relationships, loyalty, and commitment assume new value. That value translates into the joy, fulfillment, and pleasure of doing important work with people who matter to you.

I once asked a C-suite leader at Southwest Airlines about fun and leadership. He told me that fun was incorporated into the airline's company culture. It was also included in his annual performance review: He is responsible for ensuring that his subordinates find working for him to be fun. That week he was hosting a barbecue and fun was on the menu. He explained that this attitude is baked into Southwest philosophy. It transmits out to frontline employees, flight attendants, and gate agents. Their job is making the passengers' experience safe, comfortable, and, at the same time, fun. That combination has made the company consistently profitable and remarkably resilient. (My wife and her university friend – now both therapists – call this a “fun unit,” which made their grueling graduate school work far more tolerable.)

How do you translate this lesson into your leadership practices? First, don't expect others to have fun working and following you if you aren't having fun yourself, or if you are not fun to be with. Assess your own work experience. What is it that you truly enjoy? What tasks and responsibilities detract from that engagement and delight? What provides you that sense of fulfillment and value in what you are doing and the direction you are leading? Dissect your priorities and ask whether your allotment of time and attention track to what is really important. What changes could you make?

Second, ask those same questions of the group of people whom you lead. Assess their experiences, what supports their sense of accomplishment, their satisfaction with their job, and their engagement with the people with whom they work. Every one of your followers is different. However, on the whole, have you built, encouraged, and rewarded team spirit among people who value being together, who are committed to the shared mission, and who together take pride in their achievements?

Finally, ask yourself what would make your work experience and that of your followers more fun? Similarly, what would better engage the patients, family members, and colleagues you serve? Ask a leader you respect – a leader enthusiast – what they find fun in their leading. As you become more engaged, you likely will become a more effective leader, and those who follow you will be so too. What could you do to elevate the work experiences of others and thereby the value, success, and meaning of their work? Fun has many ways to express itself.

Bottom line, ask yourself: Are you someone



Dr. Marcus is coauthor of “Renegotiating Health Care: Resolving Conflict to Build Collaboration, Second Edition” (San Francisco: Jossey-Bass Publishers, 2011) and is director of the program for health care negotiation and conflict resolution at Harvard School of Public Health, Boston. Dr. Marcus teaches regularly in the SHM Leadership Academy. He can be reached at ljmarcus@hsph.harvard.edu.

who others want to work for? Do you care? Can you bring out the best in people because of who you are and what you do?

Your work is as serious as it gets. You are at the cusp of life and death, quality of life decisions, and medical care. The fun comes in putting your all into it and getting the satisfaction and interpersonal bonds that make that effort worthwhile. Often, you have the privilege of making people healthier and happier. What a gift! Excellence can be fun.

Keep an appropriate sense of humor in your pocket and an ample supply of personal and professional curiosity in your backpack. Relish the delight of something or someone new and pleasantly unexpected. The fun for others comes in your rewarding flash of a smile, your laugh, or your approval when it matters most.

Your job as leader is tough. Health care is hard work and the changes and shifts in the health care system are making it only more so. Imagine how a dash of humanity and relationships can make that all far more bearable.

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