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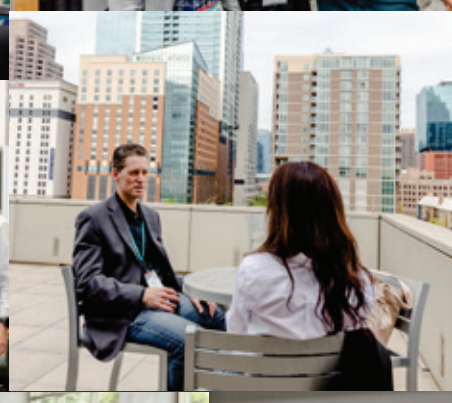




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IN THE NEXT ISSUE...

PCP shortage, street medicine, and more

Mid-career "Phronesis"

By Stephanie Halvorson, MD FACP, FHM, and James Fink, MD

Dr. Halvorson

Dr. Fink

Dr. Halvorson is an associate professor of medicine and division chief of hospital medicine at Oregon Health & Science University in Portland, Ore. Dr. Fink is a hospitalist at Gold Coast Hospitals, Queensland, Australia.

The 2023 SHM Converge Conference in Austin, Texas was the backdrop for a chance encounter between two old friends. We and our spouses met during residency 20 years ago, became fast friends, and then parted ways as one went off to begin an academic hospitalist practice in the Gold Coast of Australia, and the other remained in an academic hospitalist career in the Pacific Northwest. We had kids, built homes, and gathered a few times over the years for multi-family vacations, but had not seen one another since 2018 before the global pandemic and its era of isolation.

We found ourselves bonding over updates on our families, middle age, and life as mid-career hospitalists. Having just attended the wonderful "Updates" talk in which we learned the latest updates for treating heart failure (GDMT! Titrate those doses! Add the SGLT-2 inhibitor!), we found ourselves reminiscing about the evolution of the treatment of this condition over our careers. Start the beta blocker, no don't, not during an exacerbation. Add spironolactone! No wait, eplerenone! Titrate the ACE. No, the ARB!

What struck both of us was that some of our passion for consuming the latest in evidence-based medicine treatments had waned. In its place was something mellower, more seasoned. What we found ourselves discussing was an understanding that these treatments would soon be replaced or augmented by another NKOTB (that is "New Kids On The Block" for those who aren't middle-aged) and that rather than focusing on that, our approach to heart failure and other illnesses had shifted to something more practical, more synthetic.

Phronesis is defined as "wisdom in determining ends and the means of attaining them, practical understanding, sound judgment." According to Aristotle, phronesis goes beyond analytical, scientific knowledge (episteme), and technical knowledge (techne) and instead invokes practical wisdom based on judgment which is honed over time.

As we caught up about our kids, college decisions, and mutual friends, we found ourselves bonding over some of the realities of middle age—eye crinkles, receding hairlines, softening of formerly sharp angles. We laughed and recognized that despite these downsides, there are many upsides—not the least of which is an amassing of phronesis. Gone are the "whipper snapper" young attending physicians who gave chalk talks on the latest in evidence-based medicine. Replacing these are conversations with our learners about practical realities: Are five new medications really feasible for this patient? Have we talked about the goals of care? While we pore over consultant recs over this treatment or that, have we taken the time to convey our knowledge to the patient about the ultimate outcome?

After all, by now we have seen the arc of illness and know how the story will end.

As hospital medicine moves into middle age, we cannot help but wonder if it too will begin to mellow. Instead of jumping at the latest treatment or doing the newest scan just because we can, perhaps we should be advocating for a "tincture of time" and close observation. We should be thinking about the practical realities of cost and access to care, and patient goals and values, and—using our collective voices and amassed wisdom—use this to influence the practice of hospital medicine into the future. ■

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SESSION SUMMARY

Improving Communications Between ED and Hospitalist Physicians, Viewpoints from Both Perspectives

Presenters: Michael Pfeffer, MD, FACP, Stanford Health Care and School of Medicine, and Andrew Pfeffer, MD, Vanderbilt University

Summary author: Amanda Green, MD, FACP, FHM

Dr. Michael and Dr. Andrew Pfeffer are brothers who each presented a side of the emergency department(ED)/hospitalist points of conflict. They set the scope of the talk with data from 2020 that there were 131.3 million ED visits in the U.S. and 18.6 million of those resulted in admissions. As noted in several other sessions throughout Converge, boarding is only getting worse in our EDs.

They noted that the handoff between the ED and admitting physician has a high opportunity for error, and reviewed the PREP-4C transition of care practice for handoff:

- **Preparation**—having the right access, time, and space
- **Contact**—conducting introductions either face-to-face or voice-to-voice
- **Communicate patient information**—using one of many available tools (HANDOFFS, I PASS, SBARR, SHARQ, SOAP), and making sure to identify high-risk patients
- **Closing the loop**—inviting questions and discussing next steps and pending workup
- **Conclusion**—documenting plan and planning, if needed, to reconnect. A bedside handoff often would be ideal, with a discussion of the next steps.

They discussed that burnout can be an issue resulting in poor communication, with 60% of ED physicians and 52% of hospitalist physicians reporting burnout. Three pillars were noted to support professionals' intrinsic motivation and psychological well-being—autonomy, competence, and relatedness. These pillars are often an important part of the perceived conflict between ED physicians and hospitalists. Word clouds were presented as related to ED patient experiences that showed the doctor was an important factor when there were neutral or negative reviews.

Points of conflict between the ED and hospitalists were addressed through case examples acted out through phone-call scenarios. Does this patient *need* to be admitted? Is this patient *ready* to be admitted? Is the ward the best or safest place to admit? Is medicine the right or appropriate service?

Strategies for resolving the conflict of whether the patient needs admission included hospitalist consults. A hospitalist evaluates the patient in the ED and helps with care coordination and the decision to admit. Up to 10% of patients referred to admission are discharged. This structure could be through admission coordinators or a 24-hour hospitalist in the ED. ED observation units are other solutions, with shorter observation lengths of stay (11.9 hours versus 35.6 hours), lower costs, and lower admission rates (12.3% compared to 26.4%). It was noted that 78.3% of patients discharged from the ED after referral for admission did not return at 30 days, mortality was unchanged, and 87.7% did not require hospitalization at 30 days.

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Strategies for addressing the conflict of whether the patient is ready for admission included recognizing all the time-based metrics on which the ED team is measured and all the areas they are covering, including the waiting room. This is countered by the fact that hospitalists get patients not only from the ED but multiple other areas, are encouraged to discharge before noon and reduce the length of stay, balance rounding on current patients with working on admissions, and are working to reduce the overall cost of care. Often hospitalists request extra studies in the ED as the ED has the resources and infrastructure for quicker turnaround and can help delineate if a patient may need transfer to a higher level of care or if another specialty needs to be involved. The solution to this case-based conflict was a conversation and a compromise with a few hours of extra monitoring before admission.

For the floor-versus-intensive care unit (ICU) conflict, we reviewed data that factors leading to medical patients escalating to ICU within 24 hours of admission included elevated lactates (>4) on admission and nighttime admissions. In another study, independent predictors of subsequent ICU transfer included respiratory compromise in the ED, congestive heart failure, and peripheral vascular disease. The solution to this case-based conflict was again a conversation, with the hospitalist evaluating the patient in the ED, monitoring another hour for stability, then admitting to step-down, with ICU aware and available.

The case used to debate whether medicine is the right admitting service highlighted a 68-year-old with no doctor or past medical history who fell and presented with a right femoral neck fracture (and a creatinine of 2.1, sodium 128, glucose 480, no evidence of diabetic ketoacidosis, and urinalysis with nitrates and 100 white cells). Solutions to this conflict included having established service designation lists for your hospital, outlining when a surgical service admits a patient with a medicine consult and vice versa. The case resolution was a conversation between the ED, hospitalist, and orthopedist with the hospitalist evaluating in the ED, reviewing the service designation list, and the patient admitted to orthopedics with a hospitalist consult based on that hospital's protocol.

Overall, sources of conflict and navigating conflict were discussed. More inquiry and curiosity were recommended: both asking questions about why the colleague thinks a patient needs to be admitted, and also checking in and making sure that your team is doing okay. We need to balance our ED doctors feeling interrogated about each admission with the need to get good clinical and social information on the patient. We can recognize there are different "right ways" to manage clinical presentations. Using "I" statements rather than "you" statements can help avoid some defensiveness. Socializing with different members of the team and engaging with each other in and out of the hospital can help build team relationships as well, rather than adversarial us-versus-them relationships. ■

Dr. Green

Dr. Green is an internal medicine hospitalist and chief medical officer at Paris Regional Health, Paris, Texas.

Key Takeaways

- The handoff between the ED and admitting physician has a high opportunity for error, with bedside handoff and discussion of the next steps best practice.
- Strategies to resolve conflicts over admissions include hospitalist consults, communication, and compromise of more monitoring in the ED before admission or bed placement, and having preestablished service designation lists for medical or surgical admissions.

SESSION SUMMARY

Pediatric Update: Top 10 Articles of 2022

Presenters and summary authors: Andrea Lauffer, MD, and Anna Kushnir, MD

In 2022, a New York Times headline declared, "Saving kids is bad business in America."[1] Pediatric hospitalists were faced with an unprecedented winter surge due to the "tripledemic" of COVID-19, influenza, and respiratory syncytial virus. Meanwhile, hospitals nationwide closed their pediatric units to focus resources on adult care.[2]

Outside of the hospital, children and families around the world were impacted by social inequities and humanitarian crises in the form of rising inflation, Russia's invasion of Ukraine, and intensifying climate change.

As pediatric hospitalists, we've had the privilege to walk briefly alongside our patients and their families to help them navigate a challenging year. We've continued to ask ourselves how we can provide better care and have published literature to help us continue to cultivate our field.

In this article, we identify the top 10 articles that impacted pediatric hospital medicine in 2022, as presented at the Pediatric Update at SHM Converge 2023 in Austin, Texas. Four of the articles are summarized here.

Surge in Pediatric Firearm Injuries Presenting to US Children's Hospitals During the COVID-19 Pandemic

Iantorno SE, et al. Surge in pediatric firearm injuries presenting to us children's hospitals during the COVID-19 pandemic. *JAMA Pediatr*. 2023;177(2):204-6.

Background—Firearm injury is a leading and preventable cause of death for youth in the U.S.[3] In order to develop effective and evidence-based prevention strategies, it's imperative to first understand the current trends in mortality data, with a particular focus on intent, differences by age group, and racial or ethnic inequities.

Findings—This multicenter retrospective cohort study used data from the Pediatric Health Information System to compare a cohort from April 2018-December 2019 to April 2020-December 2021. It included all children younger than 18 years diagnosed with firearm injury based on International Classification of Diseases, Tenth Revision codes. The primary outcome was monthly firearm-injury rate. There were 1,815 firearm injuries before versus 2,759 during the pandemic, a 52% increase. A greater proportion of non-Hispanic Black children, those aged 0 to 5 years, and those with public insurance had firearm injuries during the pandemic. There were no significant differences between cohorts by sex, household income, rurality, region, mortality, or intent.

Practice Implications—This study shows a surge in pediatric firearm injuries presenting to US children's hospitals during the COVID-19 pandemic. The unequal rates of injury in black children and children with public insurance reflects the disproportionate impact of COVID-19 in minority groups due to the exacerbation of previously present healthcare disparities. This data should be used to support advocacy efforts and healthcare policy aimed at injury prevention.

Common Diagnoses and Costs in Pediatric Hospitalization in the U.S.

Kaiser SV, et al. Common diagnoses and costs in pediatric hospitalization in the US. *JAMA Pediatr*. 2022;176(3):316-18.

Background—As the Choosing Wisely: Things We Do for No Reason series highlighted, low-value care practices continue to propagate because "that is how we have always done it."[4] More evidence is needed to guide high-value inpatient pediatric care, and a crucial initial step is to determine the costliest and most common reasons for hospitalization.

Findings—This study was a cross-sectional analysis of data from the 2016 (most recent available) Kids' Inpatient Database. It included all nonbirth hospital discharges for children aged 0 to 17 years and excluded any records for which the primary diagnosis was missing. They reviewed 1,777,023 nonbirth pediatric hospitalizations in 3,768 U.S. hospitals. The most common diagnoses were bronchiolitis (n=97,564 hospitalizations), pneumonia (n=86,702 hospitalizations), asthma (n=84,436 hospitalizations), major depressive disorder (n=79,147 hospitalizations), and cellulitis (n=42,556 hospitalizations). The costliest diagnoses overall were respiratory failure ($982.8 million), pneumonia ($785 million), chemotherapy ($781.4 million), bronchiolitis ($702.2 million), and septicemia ($697 million).

Practice Implications—Research and quality-improvement efforts focused on bronchiolitis, pneumonia, asthma, and septicemia could lead to significant impacts in the field of pediatric hospital medicine. Notably, the investigators found that major depressive disorder increased from the ninth most common diagnosis in 2012 to the fourth most common in 2016.[5] Research has shown that the COVID-19 pandemic led to an even greater increase in hospitalization due to mental health disorders.[6] Thus, this study emphasizes the dire need for resources for children who are hospitalized with mental health disorders.

The Increasing Proportion of Adult Discharges at Children's Hospitals, 2004-2019

Allen AQ, et al. The increasing proportion of adult discharges at children's hospitals, 2004-2019. *J Hosp Med*. 2022;17(12):990-3.

Background—Due to medical advances, patients with chronic complex medical conditions can live further into adulthood. Due to multiple factors, this population faces challenges transitioning to adult care.[7]

Findings—This multicenter retrospective cohort study used data from the Pediatric Health Information System. It included all observation and inpatient encounters from 2004-2019 except newborn and pregnancy-related encounters; 8,097,081 encounters were identified. The study showed that adults discharged from children's hospitals are more likely to have a complex chronic condition, higher length of stay, and higher median cost compared to other children. Additionally, the number of adult admissions to children's hospitals continues to increase, especially among the 21–25-year-old age group.

Practice Implications—Future research and health care policy should focus on addressing the needs of the growing adult population in children's hospitals.

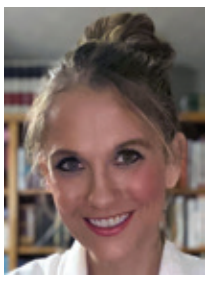
Opportunities for Restructuring Hospital Transfer Networks for Pediatric Asthma

Brown L, et al. Opportunities for restructuring hospital transfer networks for pediatric asthma. *Acad Pediatr*. 2022;22(1):29-36.

Background—Children with asthma are often transferred to specialized centers for care, and these transfers often result in either immediate discharge from the emergency department or brief admission.[8,9] Given the recent surge in pediatric hospitalizations, it is vital to identify opportunities to decrease the burden on tertiary care centers safely.[2]

Findings—This multicenter, retrospective, cross-sectional study used data from 2014 inpatient and emergency department encounters in Arkansas, Florida, Kentucky, Maryland, Massachusetts, and New York. The study included children under the age of 18 with a diagnosis of asthma and identified 174,239 hospital encounters. There were 3,101 transfers, and 94% of these were admitted, with a median length of stay of two days. For 53% of children transferred, there was a closer potentially admitting hospital that was bypassed.

Practice Implications—This study suggests that developing a tiered transfer system among regionally affiliated hospitals for treatment of pediatric asthma patients has the potential to reduce travel burdens on families, lower costs of admission, and reduce patient burden in specialized referral centers.



Dr. Lauffer

Dr. Kushnir

Dr. Lauffer is an assistant professor of internal medicine and pediatrics at the Marshall University Joan C. Edwards School of Medicine and an associate program director of the Marshall Pediatric Hospital Medicine Fellowship Program in Huntington, W.Va. She is a co-chair of the American Academy of Pediatrics HM section's med-peds subcommittee and chief health officer of Cabell County, W. Va. Schools. Dr. Kushnir is a fellow in pediatric hospital medicine at Phoenix Children's Hospital in Phoenix, Ariz.

The remaining articles that comprised the top 10:

- Cantey JB, et al. Remote stewardship for medically underserved nurseries: A stepped-wedge, cluster randomized study. *Pediatrics*. 2022;149(5):e2021055686. doi:10.1542/peds.2021-055686.
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6. Krass P, et al. US pediatric emergency department visits for mental health conditions during the COVID-19 pandemic. *JAMA Netw Open*. 2021;4(4):e218533. doi:10.1001/jamanetworkopen.2021.8533.

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8. França UL, McManus ML. Trends in regionalization of hospital care for common pediatric conditions. *Pediatrics*. 2018;141(1):e20171940. doi:10.1542/peds.2017-1940.

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SESSION SUMMARY

High-Value Care/Things We Do For No Reason

Presenter: Vivian Lee, MD, Children's Hospital Los Angeles

Summary author: Andrea Hadley, MD

Key Takeaways

- Low-value care contributes to health care waste and harm. Identifying TWDFNR as targets for de-implementation can improve value.
- Feeding on HFNC can be safe and well-tolerated; waiting a pre-determined amount of time from initiation of HFNC to starting feeds is a TWDFNR.
- The incidence of major gastrointestinal bleeds is negligible in patients with critical asthma; empiric stress ulcer prophylaxis is a TWDFNR.
- Routine use of procalcitonin, as well as routine blood cultures for patients hospitalized with uncomplicated infections, are TWDFNR.
- Prescribing intravenous antibiotics for a predetermined duration for patients hospitalized with infections such as bacteremic urinary tract infection, osteomyelitis, or complicated pneumonia is a TWDFNR; we should consider early transition to oral antibiotics.
- Hospitalists can lead the change! Work with key stakeholders on the de-implementation of low-value care in your institution.

In this impactful session, Dr. Lee defined value as the sum of quality of care, equity, patient outcome, and experience divided by costs of care and nonfinancial risks and harms. High-value care provides the best care most efficiently and achieves optimal results for each patient. In the U.S., the cost of care continues to rise, but many outcomes are inferior to those in other countries. Between 25 and 34% of U.S. health care expenditures are considered waste, including in pediatrics. Waste can be due to clinician, clinical, and patient factors, culture, economics, and technology.

Dr. Lee identified four practices within pediatric hospital medicine as things we (still) do for no reason (TWDFNR), contributing to low-value care. First, withholding feeds in patients with bronchiolitis on high-flow nasal cannula (HFNC) for a predetermined amount of time after HFNC initiation is a TWDFNR. You may think this lessens the likelihood of aspiration, but there is no evidence to suggest an increase in aspiration risk with early feeding.[1] Holding feeds could cause distress and increase length of stay (LOS) and costs. Instead, allow feeding unless there's a significant clinical concern.

The next TWDFNR is administering stress ulcer prophylaxis in patients with critical asthma. While both critical illness and steroid treatment are risks for gastritis and gastrointestinal bleeding, their incidence in patients with critical asthma is negligible.[2] Furthermore, risks associated with these medications include the potential for *C. difficile* infection, prolonged administration upon transfer out of the ICU or at discharge, and increased costs. Instead, assess for other risk factors that would indicate the need for stress ulcer prophylaxis or continuation of these medications.

Dr. Lee described the routine use of procalcitonin and the use of blood cultures for patients hospitalized with certain uncomplicated infections (community-acquired pneumonia, urinary tract infection, skin, and soft tissue infection) as another TWDFNR. Procalcitonin use is rapidly increasing over time.[3] We might think it helps identify bacterial infections, but it can cause more uncertainty as it hasn't been shown to outperform sepsis clinical algorithms or antibiotic stewardship programs, and it may increase the cost and number of blood draws. Instead, obtain procalcitonin only in selected patients, such as febrile infants, where evidence-based clinical guidance is available. Similarly, routine use of blood cultures in uncomplicated infections has a low true-positive rate and when there is a contaminant, repeat blood cultures, longer duration of broad-spectrum antibiotics, and increased LOS or readmission can occur.[4,5]

Finally, using intravenous antibiotics to complete a treatment course for infections such as bacteremic urinary tract infection, osteomyelitis, and complicated pneumonia in pediatric patients is still a TWDFNR. Early transition to oral antibiotics has equivalent or better outcomes in these conditions and fewer harms associated with prolonged intravenous or PICC line placement, such as thrombosis, infection, increased LOS, and higher costs.[6,7] Instead, consider the early transition to oral antibiotics based on the patient's condition and response to treatment.

The good news is that hospitalists can lead the change towards high-value care by choosing services that optimize quality and minimize harm, reflecting on the evidence available, seeking to understand costs, advocating for health care reform and health equity, and identifying low-value practices. We should participate in and lead local de-implementation efforts by working with key institutional stakeholders such as hospital quality, safety, and nursing leadership to establish local practice guidelines, understand barriers, and monitor adherence. Using well-regarded initiatives like Choosing Wisely and TWDFNR, which address low-value care, is an excellent starting point. We can participate in national quality-improvement and research collaboratives that target the de-implementation of low-value care. Finally, it is critical to examine low-value care with a health-equity lens, as the impact likely varies between demographic groups. ■

Dr. Hadley

Dr. Hadley is a med-peds hospitalist and chief of pediatric hospital medicine at Corewell Health/Helen DeVos Children's Hospital, and an assistant professor of internal medicine and pediatrics at Michigan State University College of Human Medicine, both in Grand Rapids, Mich.

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SESSION SUMMARY

What to Do When It's Not Working: Strategies for Dysfunctional Teams and Groups

Presenters: Christopher Russo, MD, WellSpan Health and Justin Boer, MD, FAAP, WellSpan Health

Summary author: Beth Makowski, DO, FACOI, FHM

Key Takeaways

- Dysfunction in teams can be easily recognized once you learn the signs. To fix a problem, you must recognize it first.
- Strategies for dysfunctional teams can vary based on the dysfunction present.
- Building your own toolkit for change can help manage dysfunction in your team when it presents itself.

Drs. Russo and Boer began by outlining the differences between high-performing and dysfunctional teams. High-performing teams are not afraid of face-to-face communication, authentically give and receive appreciation, invest time in getting to know one another, and have more strategic meetings. These behaviors are associated with high performance—superior and on-time results with higher team engagement and less turnover.

In contrast, dysfunctional teams are characterized by poor communication and attitude, authoritarian leadership, unproductive meetings, interpersonal conflict, and artificial harmony. These team dynamics do not just affect team members, they spill outside the team and can affect patient care.

The speakers highlighted Patrick Lencioni's book "The 5 Dysfunctions of a Team" as a valuable resource for identifying and addressing dysfunctional team dynamics. The five dysfunctions discussed include:

1. Absence of trust—to combat lack of trust, leaders need to take the first step by demonstrating authentic vulnerability.
2. Fear of conflict—trust allows healthy conflict, but at times fear can get in the way of engaging in difficult discussions. Handled well and not avoided, conflict can be constructive and a catalyst for growth.
3. Lack of commitment—team members who feel ignored can disengage. Paying attention to psychological safety and wellness is critical and intentional steps must be taken daily.
4. Avoidance of accountability—without accountability, teams can lack focus and allow for low standards of quality. Improvement as a team requires accountability by all members including the difficult task of holding each other accountable.
5. Inattention to results—regularly providing team and individual metrics will help members remain focused and encourage putting team needs first. The team must understand how success is measured.

Recognizing these warning signs of dysfunctional teams can be useful for getting in front of the issue quickly; like a change in vital signs in the development of systemic inflammatory response syndrome, these can be signs of things to come. Once recognized, assessing the urgency and team readiness for change can help you prioritize your next steps. Cultivating your own toolkit for addressing dysfunction when it arises may require different strategies depending on the dysfunction present. Unhealthy conflict may require the use of facilitated discussion or mediation whereas team disengagement will be more effectively addressed through team self-reflection and attention to wellness and belonging. Leaning into discomfort, focusing on clear outcomes, monitoring for success, promoting diversity, and creating a culture of self-reflection, feedback, and belonging will broadly promote healthy team dynamics and support the development of a high-performing team. ■

Dr. Makowski

Dr. Makowski is an internist and the division chief of acute care medicine at Corewell Health West in Grand Rapids, Mich. She is core clinical faculty of Michigan State University College of Human Medicine internal medicine residency and the medical director of Grand Rapids Street Medicine, both in Grand Rapids, Mich.

SESSION SUMMARY

Syncope Evaluation: Evidence-Based and Economical

Presenter: Daniel Dressler, MD, MSc, Emory University School of Medicine

Summary author: David Calderhead, MD

Key Takeaways

- All patients with syncope should undergo a structured and comprehensive history and physical examination focusing on orthostatic, cardiac, and neurological exams.
- Use the Canadian Syncope Risk Score to rapidly determine a patient's risk of adverse events and triage to inpatient versus home.
- Admitted patients without a clear etiology for syncope should have a D-dimer test, and if positive, imaging to rule out pulmonary embolism.

Dr. Daniel Dressler started his evidence-based evaluation of the syncope presentation by polling the audience with a few cases and questions regarding syncope. Before finding out the correct answers, he helped lay the groundwork by defining syncope as a sudden loss of consciousness and postural tone due to cerebral hypoperfusion, which resolves rapidly and spontaneously. He emphasized that this definition is important as it differentiates it from other causes of transient loss of consciousness such as head trauma, seizures, and psychogenic pseudosyncope.

Syncope can be placed into four categories. Reflex is the first category; causes include vasovagal, situational, and carotid sinus syncope, making up 60% of syncope cases. The other three categories include orthostatic, arrhythmia-related, and structural-cardiovascular.

The etiology of syncope can be determined in 45% of cases using history and physical examination alone. Differentiating seizure from syncope can be difficult, but the highest positive likelihood ratio for seizure was tongue biting at 8.6. Jerking motions are common after syncope, occurring in 10% of cases, but just a few jerking motions suggest syncope. Syncope is followed by limb stiffening in 1% of cases. Urinary incontinence actually occurs in equal frequency between syncope and seizure.

Dr. Dressler emphasized the importance of doing orthostatic evaluation in all cases of syncope as a recent study showed 38% of patients did not get this type of testing despite admission for syncope. All patients should have a complete cardiac and neurologic exam, including a cerebellar exam to rule out posterior circulation stroke, as this can be missed.

Dr. Dressler took the time to discuss the Pulmonary Embolism in Syncope Italian Trial (PESIT) published in the *New England Journal of Medicine* in 2016 as it raised a lot of alarm bells. In this Italian population, 17% of patients admitted with syncope had a pulmonary embolism (PE). What explains such a high rate of PE? This study eliminated low-risk syncope patients

and those with non-syncope transient loss of consciousness, such as seizure and head trauma, using a structured approach in the emergency department (ED), with only high-risk syncope patients being admitted. These high-risk syncope patients made up 28% of the patients included in the study. After admission, a simplified Wells' pulmonary embolism criteria score was calculated, and a D-dimer was obtained. If either was high, the patient was scanned for PE and 17% were found to be positive, with two-thirds of those being found to have large-vessel pulmonary emboli. The bottom line of this study was that only 4% of the ED presentations for syncope after a structured workup had a PE. Subsequent meta-analysis showed a much lower prevalence of PE in patients admitted with syncope at 0.5 to 2.0%. In the U.S., the rate of admission for syncope was 78% whereas it was 28% in PESIT, likely due to a more structured ED workup.

Dr. Dressler shared the pearl that he obtains a D-dimer after admission if the etiology is still unclear, which occurs in about 10% of the patients that he admits with syncope.

The best-validated risk-scoring tool for syncope is the Canadian Syncope Risk Score, which came out in 2016 and identifies patients at risk for serious adverse events (death, myocardial infarction, arrhythmia, structural heart disease, aortic dissection, PE, severe pulmonary hypertension, subarachnoid hemorrhages, or serious condition requiring intervention) within 30 days of ED disposition. Dr. Dressler no longer talks about other scores and uses this one alone in all his syncope admissions. This score suggests that patients with a score of 0 or below can be discharged from the ED, while a score of 3 or higher warrants admission.

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In discussing evidence-based tests to order, while greater than 50% of patients with syncope had brain imaging, carotid Doppler ultrasound, or electroencephalogram, the diagnostic yield was only 1.5%. The yield would be 32% if neurologic studies were directed only at patients with neurologic findings on history or physical exams. Exercise stress testing could be considered in exertional syncope, but it has a diagnostic yield of only about 1%. In patients with concern for arrhythmogenic etiology, electrophysiologic studies have a diagnostic yield of 30-60%.

What about echocardiograms? While the 2006 ACC/AHA Guidelines for the Evaluation of Syncope recommended echocardiography as a helpful screening tool if the history, physical examination, and ECG do not provide a diagnosis, or if underlying heart disease is suspected, a 2017 Choosing Wisely article showed that the yield of echocardiograms in these patients is 1% and the cost is $1,500 to $2,000 per transthoracic echocardiogram ($100,000 per new abnormality discovered). The yield of echo in patients with an abnormal ECG is much higher at 17% with a cost per new abnormality discovered of $7,000. The updated 2017 ACC/AHA guidelines now recommend transthoracic echocardiography only if the patient is suspected to have a structural problem. ■

Dr. Calderhead is a hospitalist at Corewell Health and an assistant professor in the department of medicine at Michigan State University, East Lansing, Mich.

SESSION SUMMARY

If You Build It…Standardizing the Recruitment Process for Hospitalist Programs

Presenters: Nila S. Radhakrishnan, MD, University of Florida, Viniya Patidar, MD, Emory University School of Medicine, Yoo Mee Shin, MD, Emory University Hospital Midtown, and Philicia Duncan, MD, Ohio State University Wexner Medical Center

Summary author: Abhi Kole, MD, PhD

This workshop discussed ideas to standardize the recruitment process, ask more informative interview questions, and minimize unconscious bias to create a diverse hospitalist group. The audience was separated into three small groups: single-center academic hospitalists, multi-center hospitalists, and community hospitalists.

Each group first discussed the members of a comprehensive recruitment team and how to advertise to solicit a diversity of applications appropriate for their clinical-center type. The next small group discussion focused on questions to elicit how a candidate will perform, rather than superficial demographic questions only. After each small-group discussion, there was a share-out with the larger group. Finally, the session ended with a discussion on the different types of unconscious bias and mitigation strategies for unconscious bias in hiring. ■

Key Takeaways

- A comprehensive recruitment team should include members from division leadership, clinical faculty, and business and financial staff to provide a budget. It is helpful to have someone other than the division chief take over the primary responsibility of recruitment.
- "Behavioral questioning" allows interviewers to ask questions that will gauge how a candidate would navigate a certain scenario and give insight into how they would perform at the job. For example, one could ask, "Tell me about a success in your past job and how you achieved it?" rather than, "What are your strengths?" Other examples include, "How do you manage patients who are medically clear for discharge, but have significant social barriers to care?" or, "How do you accommodate learners who have trouble adapting to your teaching style?"
- Unconscious bias can present in the recruitment process via asking different candidates different questions, placing too much emphasis on first impressions, allowing one or two positive or negative attributes to overshadow all other characteristics, comparing a candidate to the last candidate interviewed, and selecting candidates who are all similar to the interviewer. Implicit bias tests, self-reflection, use of evaluation criteria set prior to the process, holistic review of the applicant packet, and appointment of an equity advisor can mitigate unconscious bias.
- Improvement of the diversity of applicants can be achieved by broadening marketing avenues, including diversity, equity, and inclusion goals in the job description, using inclusive language (avoid gendered and/or ableist language, for example), and specifying clearly which qualifications are required, versus preferred, for the job.


Dr. Kole

Dr. Kole is a hospitalist at Emory University School of Medicine, and the assistant site director of recruitment, onboarding, and retention at Grady Memorial Hospital, Atlanta's county hospital affiliated with Emory University.

SESSION SUMMARY

The 2022 AAP Newborn Jaundice Guideline: Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation

Presenter: Alison Holmes, MD, MPH, Geisel School of Medicine at Dartmouth

Summary authors: Haley Ehrle, MD, and Andrea Hadley, MD

Key Takeaways

- Be on the lookout for hemolysis! Screen for maternal antibodies and other hemolysis risks. Consider G6PD in severe or atypical cases.
- Identify suboptimal intake jaundice (new name for breastfeeding jaundice) and intervene early with supplementation as needed and breastfeeding support.
- The new nomograms for treating hyperbilirubinemia are "safely higher," and we should work towards eliminating sub-threshold phototherapy.
- There is a new, clear pathway for escalation of care when approaching the exchange transfusion threshold.
- The guideline provides clear guidance on discharge and follow-up.

Dr. Holmes presented the 2022 American Academy of Pediatrics Clinical Practice Guideline for Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation. A large, diverse committee developed the guideline over eight years. Dr. Holmes emphasized that the guideline is only intended for U.S. hospital systems. The purpose is to prevent chronic bilirubin encephalopathy (CBE). CBE manifests as choreoathetosis, hearing loss, and only a mild IQ effect, and occurs at an average bilirubin of 40 mg/dL.

Dr. Homes first talked through key action statements for prevention. She highlighted that identifying infants with hemolysis is critical. We should screen for maternal antibodies and obtain a Direct Antibody Test on the infant if the maternal blood type is unknown or AB+. We should screen for Glucose-6-Phosphate Dehydrogenase (G6PD) deficiency in atypical cases. More research targeted towards identifying babies with G6PD deficiency is needed. Finally, identifying suboptimal intake hyperbilirubinemia (a new name for breastfeeding jaundice) and intervening early with supplementation and breastfeeding support is important.

Dr. Holmes then reviewed key action statements in the assessment. Evidence supports obtaining a bilirubin level in all infants within 24-48 hours of birth, prior to discharge. She outlined the use of transcutaneous versus serum bilirubin and discussed that rapid rates of rise could suggest hemolysis. She also reviewed changes to the neurotoxicity risk factors outlined in the guideline. Additionally, she reminded us to check total and direct bilirubin and be on the lookout for cholestasis in infants 2-4 weeks old.

Next, Dr. Holmes discussed updates in treatment. It is exciting that the new nomograms are "safely higher" and more user-friendly. They are separated by gestational age and risk factors and based on a more diverse population than prior nomograms. Several online calculators now reflect this change. Additionally, clear guidance is provided for discontinuation of phototherapy, discharge, and followup care; use risk-of-rebound to determine the timing of followup and do not automatically check "rebound" bilirubin before discharging after phototherapy. Finally, there is a new pathway outlining the escalation of care when the exchange transfusion threshold is approached.

Dr. Holmes concluded by discussing the importance of limiting or eliminating sub-threshold phototherapy (treating hyperbilirubinemia with phototherapy when total serum bilirubin is under the threshold according to the nomogram). Phototherapy is not benign; risks may include disrupting mother-infant bonding and breastfeeding as well as increasing health care utilization post-discharge due to the medicalization of well infants. ■

Dr. Ehrle

Dr. Hadley

Dr. Ehrle is a second-year pediatrics resident at Corewell Health/Helen DeVos Children's Hospital in Grand Rapids, Mich. Dr. Hadley is a med-peds hospitalist and chief of pediatric hospital medicine at Corewell Health/Helen DeVos Children's Hospital in Grand Rapids, Mich., and an assistant professor of internal medicine and pediatrics at Michigan State University College of Human Medicine.

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SESSION SUMMARY

Lover or Liver? Inpatient Management of Decompensated Cirrhosis

Presenter: Suchita Shah Sata, MD, FACP, SFHM, Duke University Hospital

Summary author: Stephanie Burdick, MD, FACP

In this clinical-pearl-packed session, Dr. Suchita Shah Sata from Duke University Hospital in Durham, N.C., recaps the breadth of knowledge needed by hospitalists to manage this complex patient population. Outlining the objectives of the talk, Dr. Sata describes the pathophysiology of cirrhosis and how this leads to the complications that are seen in the decompensated state, suggests a framework for evaluating the etiologies of decompensated cirrhosis, and applies current evidence to delineate best practices in inpatient management of common complications of cirrhosis.

Reviewing the pathophysiology of decompensated cirrhosis, increased intrahepatic resistance results in increased portal pressures and congestion, with splanchnic vasodilation and the development of venous varices. Vasodilator release and low oncotic pressure due to the decline in hepatic albumin production decreases peripheral vascular resistance and results in low systemic blood pressure with decreased effective arterial blood volume experienced by the kidneys. A sodium avid state develops with retention of both sodium and fluid, resulting in ascites and edema.

The complications of decompensated cirrhosis are deeply intertwined, with one complication often resulting in a cascade of others. When admitting a patient with new-onset ascites or a worsening decompensated state, Dr. Shah Sata asks the question, "Why is this patient sick today? Why now?" to understand why a patient might be developing ascites, encephalopathy, spontaneous bacterial peritonitis (SBP), or hepatorenal syndrome (HRS) at this junction in their illness. One cause of worsening decompensation, portal vein thrombosis, should be ruled out in any patient with new or worsening ascites by obtaining a right-upper-quadrant ultrasound with Doppler.

These patients should also undergo diagnostic paracentesis, as SBP can present without any typical infectious signs or symptoms such as fever, abdominal pain, or leukocytosis. Ascitic fluid should be sent for cell count and differential, culture, gram stain, fluid protein, and fluid albumin; a serum albumin level should be drawn. These laboratory studies can help support the cause of ascites as consistent with liver etiology by calculating a serum-albumin-ascites gradient. A polymorphonuclear leukocyte count >250/mm³ is consistent with SBP, even without the presence of bacteria on the gram stain or culture, and warrants treatment with a third-generation cephalosporin. SBP prophylaxis should be considered in any patient with a history of SBP, advanced cirrhosis meeting specific laboratory parameters, and/or active gastrointestinal bleeding.

A key high-value care opportunity includes the appropriate use of blood products prior to paracentesis. The American Association for the Study of Liver Diseases does not recommend routine administration of fresh frozen plasma or platelets prior to diagnostic paracentesis, as patients with cirrhosis have both pro-thrombotic and anticoagulant physiology, and studies show that neither international normalized ratio (INR) nor platelet count accurately predict bleeding risk.

Managing ascites in cirrhosis can be challenging. While hospitalists often first reach for furosemide to manage hypervolemia, the most effective diuretic to manage ascites in cirrhosis is spironolactone, starting at a dose of 100 mg daily. While furosemide is helpful to augment diuresis and maintain potassium balance, spironolactone targets the underlying renin-angiotensin system and results in sufficient diuresis to control ascites in many patients. If diuretics are not sufficient, large volume paracentesis, as defined by removal of greater than four to five L of ascites, can be employed to manage fluid buildup.

However, hospitalists should be aware of the risk of paracentesis-induced circulatory dysfunction, as rapid fluid shifts can drive a patient into renal failure. To prevent this, albumin administration of six to eight g of albumin per liter of ascites should be provided. For patients who do develop renal impairment such as HRS, diuresis should be stopped. Patients should receive volume expansion with albumin and be provided octreotide and midodrine to improve renal perfusion.

One of the most feared complications of cirrhosis, variceal bleeding, should be treated with octreotide, conservative transfusion threshold of seven to nine g/dL, pre-emptive SBP treatment, and gastrointestinal consultation for esophagogastroduodenoscopy with band ligation or injection. Non-selective beta-blockers such as propranolol or nadolol should be started for prevention of rebleeding after the patient is stabilized and any hypotension has resolved. For patients with hepatic encephalopathy, an aggressive lactulose regimen should be started with 30 mL every two to three hours until mentation is clearing. Do not check plasma ammonia levels; Dr. Shah Sata calls this out specifically as a low-value practice. Rifaximin can be used in addition to lactulose.

Other key tips include avoiding nonsteroidal anti-inflammatory agents in patients with cirrhosis due to the propensity for renal dysfunction, and never placing a drain in a hepatic hydrothorax due to rapid volume depletion. Transplant evaluation and palliative care are additional key pillars in the care of advanced liver disease and should be discussed early in the patient's disease course. ■

Key Takeaways

- Complications of cirrhosis are often intertwined, and it is important to understand the physiology of decompensated cirrhosis to evaluate and treat its complications.
- Patients with new-onset ascites, known ascites admitted to the hospital for any emergent reason, or with new signs or symptoms of infection should undergo diagnostic paracentesis.
- Polymorphonuclear leukocyte count >250/mm³ is consistent with SBP, even without the presence of bacteria on the gram stain or culture, and warrants treatment with a third-generation cephalosporin.
- Do not routinely administer fresh frozen plasma or platelets prior to diagnostic paracentesis, as patients with cirrhosis have both pro-thrombotic and anticoagulant physiology, and studies show that neither INR nor platelet count accurately predict bleeding risk.
- The most effective diuretic to manage ascites in cirrhosis is spironolactone, starting at a dose of 100 mg daily. Furosemide may be added to maintain potassium balance.
- Do not check ammonia levels in suspected hepatic encephalopathy, as this is a low-value practice that should not dictate treatment plans.
- Evidence-based indications for the use of albumin include prevention of post-paracentesis circulatory dysfunction, volume expansion in HRS, and prevention of HRS in cirrhotic patients with SBP.
- Consider initiating discussions early regarding referral for transplantation and palliative care in patients with advanced liver disease.

Dr. Burdick

Dr. Burdick (@GoBlueBurd) is an adult internal medicine hospitalist, clinical assistant professor of internal medicine at Michigan State University College of Human Medicine, and medical director of the Clinical Standardization Program at Corewell Health, both in Grand Rapids, Michigan.

Additional Resources

- Biggins SW, et al. Diagnosis, evaluation, and management of ascites, spontaneous bacterial peritonitis and hepatorenal syndrome: 2021 practice guidance by the American Association For The Study Of Liver Diseases. *Hepatology* 2021;74(2):1014-48.
- European Association for the Study of the Liver. EASL clinical practice guidelines for the management of patients with decompensated cirrhosis. *J Hepatol.* 2018;69(2):406-60.

SESSION SUMMARY

Sweet Relief: Acute Pain Management for the Hospitalist

Presenters: Theresa E. Vettese, MD, and Mia (Jung) Park, MD, Emory University School of Medicine

Summary author: Malavika Kapuria, MD

This case-based session provided hospitalists with expert opinion and evidence-based approaches to navigate challenges when managing acute pain in the inpatient setting. Opioid prescription management can be especially problematic for hospitalists when caring for patients with chronic pain on long-term opiate therapy (LTOT) and those with opioid use disorder (OUD).

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Managing acute pain of the opiate-naïve patient in the inpatient setting

There are multiple options in the hospitalist's toolbox when managing acute pain in the inpatient setting. These include non-pharmacologic treatments and non-opioid and opioid pain medications (OPM). The first part of the session highlighted indications and tips for the use of the abovementioned treatments, followed by communication and discharge-planning tips for hospitalists using OPM to treat acute pain.

In pain medicine, efficacy is described as a 50% improvement in pain over that of a placebo. Nonsteroidal anti-inflammatory agents (NSAIDs) are effective analgesics, with a relatively low number needed to treat, especially when used in conjunction with acetaminophen (1.5). Oral (PO) acetaminophen alone is not as effective (number needed to treat of 5). NSAIDs are effective for most pain, including musculoskeletal, procedural, migraine headache, and cancer pain. There is low-quality evidence of analgesic effect for aspirin 500 mg or oxycodone 5 mg.

Hospitalists must exercise caution when using NSAIDs in patients with peptic ulcer disease, cardiovascular disease, or kidney dysfunction. All NSAIDs pose a risk of cardiovascular thrombotic events; risk tends to be dose-dependent and increases with duration of use. Risk factors for gastrointestinal toxicity with NSAID use include a history of uncomplicated ulcers, high-dose NSAIDs, and concurrent use of aspirin (including low doses), glucocorticoids, or anticoagulants. NSAIDs should be avoided in patients with volume depletion, nephrotic syndrome, heart failure, cirrhosis, and hypercalcemia. However, low-dose NSAIDs are safe to use in patients with creatinine clearance values up to 30.

There has been a dramatic increase in the percentage of gabapentin prescriptions in the last several years. However, it is effective only in a handful of circumstances including post-herpetic neuralgia (a labeled use) and diabetic neuropathy. Studies have also shown efficacy in fibromyalgia and chemotherapy-related neuropathy. Topical agents (e.g., lidocaine, NSAIDs) are other components in the hospitalist's pain management toolbox. Lastly, intravenous (IV) ketamine in sub-anesthetic doses is increasingly used as an analgesic and is particularly effective in patients undergoing significant surgery with opioid tolerance or dependence.

With OPM use in inpatient settings, communication is key. Hospitalists are urged to discuss the risks and benefits of OPM with their patients, as well as safe tapering and discharge plans as early as hospital days one to two. Experts recommend transitioning from IV to PO opioids as soon as possible in the inpatient setting. Caution should be maintained when discharging patients on opioids; pain should be stable for 24 hours on the discharge pain-management plan, and a three-to-five-day OPM taper is ideal for acute non-operative pain.

Key Takeaways

- NSAIDs are effective analgesics for many indications with very few reasons to withhold them. Low-dose NSAIDs are safe to use when creatinine clearance is 30 or greater (avoid use in stage 4 or 5 chronic kidney disease).
- Gabapentinoids are not effective analgesics for most etiologies of acute pain and have significant adverse effects. If employed, gabapentinoids should be used with caution with a "low and slow" approach.
- Communication is key. Discuss multimodal approaches to pain management, OPM taper, and employ the "teach-back" method when discharging patients from the hospital on opioids.
- OPEN (Opioid Prescription Engagement Network) is an excellent resource for hospitalists providing evidence-based opioid prescription recommendations for common inpatient procedures.

Managing acute pain of the patient on LTOT or with OUD

As when initiating OPM in the opiate-naïve patient, the value of multimodal pain management and clear communication with patients on long-term opioid therapy (LTOT) or with OUD cannot be overstated. Hospitalists are encouraged to discuss the inpatient treatment plan and discharge plan at the time of hospital admission. The goal for patients on LTOT or OUD is to treat acute pain, improve function, prevent withdrawal symptoms, and/or treat OUD.

Patients with chronic pain on LTOT require higher doses of opioids in acute-pain settings than they take long-term. Using the patient's home opioid dose is recommended during hospitalization, along with additional, as-needed (PRN), short-acting opioids. Hospitalists should recognize that tapering safely back to home doses can take longer for these patients; therefore communication with outpatient providers and close follow-up are particularly important.

When caring for patients with OUD, the use of a long-acting opioid agonist is recommended to address OUD, combined with short-acting opioids to manage acute pain. Methadone is recommended for the management of severe pain in patients with OUD, while buprenorphine may suffice for mild or moderate pain. Multiple experts recommend starting methadone PO 10 mg every eight hours, with short-acting opioid analgesics used PRN. As with patients on LTOT, hospitalists are encouraged to taper short-acting opioids as acute pain improves. Outpatient treatment plans for OUD may be discussed, with hospitalists arranging immediate follow-up at a methadone clinic or helping patients transition to buprenorphine.

For patients who are unamenable to OUD treatment, a methadone taper is recommended after discontinuation of short-acting opioids. Methadone is ideally tapered by 10% to 20% daily over 10 to 14 days; however, a rapid taper over three to five days is also feasible in the inpatient setting. Regardless of the indication for hospitalization, hospitalists are urged to treat OUD while inpatient. Inappropriately treated OUD leads to patients leaving the hospital prematurely and increases morbidity and mortality. ■

Dr. Kapuria

Dr. Kapuria is an assistant professor at Emory University School of Medicine and a hospitalist at Grady Memorial Hospital, both in Atlanta.

Key Takeaways

- Patients with LTOT or OUD have higher opioid tolerance, requiring higher and more frequent opioid dosages to adequately treat acute-on-chronic pain.
- OUD must be addressed in the inpatient setting regardless of the indication for hospitalization.
- Managing acute pain with OPM in patients with OUD does not worsen addiction or put them at increased risk for relapse.
- Harm reduction strategies should be addressed prior to discharge.

SESSION SUMMARY

Incorporating Learners on Direct Care Services: Reclaiming the "Non-Teaching Service" for Education

Presenters: Shannon Martin, MD, MS, FACP, SFHM, University of Chicago, and Satyen Nichani, MD, FACP, SFHM, University of Michigan

Summary author: Arunab Mehta, MD, MEd

Key Takeaways

- Incorporating learners on direct care services expands educational opportunities for learners and alleviates overcrowding in traditional teaching services.
- DCS placements offer valuable benefits, including one-to-one coaching, exposure to multidisciplinary goals, and fostering learners' professional growth.
- Hospitalists' involvement in medical education plays a vital role in preparing future health care professionals through direct involvement with learners.
- Overcoming challenges via standardized evaluation frameworks, dedicated feedback sessions, and smart scheduling strategies is essential for the effective integration of learners on direct care services, optimizing continuity, and individualized education.

In the field of medical education, there's a growing recognition of the importance of incorporating learners in direct care services with hospitalists to address the needs of both the learners and the health care system.

This talk explored the reasons why learners need direct care service rotations, the benefits they derive from them, and the challenges that come with integrating education into these settings.

Dr. Martin mentioned that one of the reasons for incorporating learners on direct care services (DCSs) is to provide students with essential placement opportunities since traditional teaching services have become overcrowded, making it difficult for learners to achieve adequate attention and guidance.

Learners also gain one-on-one coaching and apprenticeship with attending physicians to allow them to develop their skills and knowledge more effectively.

Exposure to multidisciplinary teams and interprofessional education provides a comprehensive understanding of collaborative health care delivery, preparing learners for future practice in team-based environments.

In addition to learners, hospitalists also benefit from being fulfilled as medical educators especially since there has been a large growth in hospital medicine services with residency positions remaining relatively stagnant.

Dr. Nichani mentioned two models being used successfully at the University of Michigan. The senior resident hospitalist rotation is a model that allows residents to practice at the top of their graduated autonomy while honing advanced communication and handoff skills. It emphasizes providing high-value care and striking a balance between autonomy and supervision.

The hospital medicine subinternship provides an ideal platform for coaching and apprenticeship for medical students. It offers students the opportunity to work closely with attending physicians and thus develop their clinical skills and decision-making abilities under direct supervision. This model encourages active participation and engagement in patient care, fostering a sense of responsibility and ownership.

DCS placements often receive positive feedback from learners. Many consider it "the best rotation of my training," according to Dr. Nichani, due to the invaluable one-to-one interaction between learners and attending physicians.

> *"Incorporating learners on direct care services can benefit the learners, the hospitalists, and the health care system."*

Hands-on learning experiences, increased autonomy, and the ability to tailor their learning and clinical care to meet individual goals are highly valued.

Additionally, mentoring relationships formed during such services contribute to learners' professional and personal growth.

Several challenges do exist, and Drs. Martin and Nichani provided potential solutions for them. Inconsistent practices among attending physicians in evaluating learner performance can exist but this could be addressed using the reporter-interpreter-manager-educator model.

Communication of learner performance can be enhanced through dedicated sessions such as "feedback Fridays."

Lastly, fragmented care models in such services can be a problem, but they can be improved by employing smart scheduling strategies for attendings.

Thus, incorporating learners on direct care services can benefit the learners, the hospitalists, and the health care system. ■

Dr. Mehta

Dr. Mehta is an academic hospitalist at the University of Cincinnati. He is an assistant professor of medicine and core clinical faculty with the internal medicine residency and has roles in quality improvement, program evaluation and improvement, and medical education.

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Rounding Project Wins Shark Tank Competition

By Thomas R. Collins

A project intending to help optimize how rounding is performed in hospitals won this year's Research Shark Tank competition at SHM Converge in March, coming after a compelling set of presentations on ways to tackle some of hospitalists' major challenges.

The winning proposal—from Thérèse Franco, MD, SFHM, associate regional medical director for Virginia Mason Franciscan Health in Seattle—was for a "dynamic rounding checklist," in which information pertinent to rounding, including central line status, presence of a urinary catheter, and risk factors for pressure injuries, comes in an easier-to-use presentation. One feature is its "traffic signal format" with green for all is well, yellow for more information is needed, and red for a potential trouble spot.


Dr. Franco

Winning the competition means that the project coordinators will have four experts at their disposal for mentoring: Andrew Auerbach, MD, MPH, professor of medicine at the University of California, San Francisco; Luci Leykum, MD, MBA, MSc, affiliate professor at the University of Texas Dell Medical School in Austin, Texas; Hardeep Singh, MD, MPH, professor of medicine at the Center for Innovations in Quality, Effectiveness, and Safety at Baylor College of Medicine in Houston; and Thomas Barrett, MD, MCR, associate professor of hospital medicine at Oregon Health & Science University in Portland, Ore. The panel of these "sharks"—who asked tough questions of the presenters—offers experience in complex quality-improvement projects and entrepreneurship.

"I think the sharks can help me take what I have and really get it to the next level," Dr. Franco said in an interview after the competition.

Two other proposals competed in the event. Sonia Dalal, MD, assistant professor of medicine at Johns Hopkins School of Medicine in Baltimore, proposed a project involving structured weekly teleconferences with nursing homes to help with the transition of patients from hospital to nursing care and reduce readmissions.

Jaimie Weber, MD, attending physician at Tampa General Hospital in Tampa, Fla., proposed a project to provide a system for early detection of sepsis and other patient deteriorations, intending to avoid unanticipated code-blues.

"They were all excellent and all (were) important areas," Dr. Leykum said during the event. "This was really challenging for us. In part it came down to which group we thought was at a place where we could help the most in terms of input." She said the other participants were welcome to contact the experts for advice as well.

Revamping the rounds checklist could help reduce hospital-acquired infections and pressure injuries, which are "common, costly, and deadly," Dr. Franco said. One in 31 patients is affected by these injuries, she said, amounting to $28 billion in direct care, along with the pain and suffering to patients. Pressure injuries come with a 22.5% mortality rate, she said.

Dr. Franco's project aims to give the rounding checklist increased visibility, to use it to provide more accurate documentation, and to provide more timely care and more effective collaboration.

For example, for the urinary catheter item in the checklist, if a patient doesn't have one, the light is green. If yes, the number of days is displayed. If the reason for continuing the catheter has been documented within the past 24 hours, the light is yellow and the reason has to be added. If no reason has been documented within the past 24 hours, the light is red, and the clinician needs to "assess the necessity" of the catheter.

"It's a visual cue that gives situational awareness to your whole team," Dr. Franco said.

She described the revamped rounding checklist as a "shared virtual workspace" that acts as a "single source of truth."

"The double documentation has to stop," she said. "Everybody sees the same data and everybody responds accordingly. No more double documentation."

The urge to improve the rounding process and reduce hospital-induced problems stems, in part, from her experience as a resident when one of her patients was lost to an infected pressure injury after a lengthy stay in the hospital.

"I feel passionate about what I call 'hospital-itis'—problems or distress that the patients didn't have when they came to us and we created," she said. "It's an all-encompassing syndrome, things like HAIs, hospital-acquired infections, hospital-acquired injuries. But it's also things like, we lost their hearing aid. Problems that they didn't have and happened in the hospital. We want to make people feel better. We can't have these things."

Dr. Franco said the mentorship will be a big help with the project.

"I do feel like the ideas that I have are large and I work in a large system, so it's a big body of work that I would really like to move forward," she said. "So, I'm really grateful for the opportunity and mentorship and the ability to grow as a professional."

She confesses a bit of anxiety as she continues her work.

"Now I feel like I'd better deliver," she said. "I've got to make the sharks proud." ■

Tom Collins is a medical writer in Florida.

SESSION SUMMARY

Firearms and the Pediatrician

Presenter: Nicole E. Webb, MD, FAAP, Valley Children's Healthcare

Summary author: Kathryn Bakkum, MD

Dr. Webb started the presentation by orienting attendees to the epidemiology of pediatric gun violence in the U.S., including the racial and ethnic disparities in pediatric firearm mortality. Guns are now the number one cause of death in U.S. children. While the tendency is to focus on school-based gun violence, this narrative overlooks the harsh reality that 72% of pediatric victims of mass shootings die in incidents of domestic violence. It also neglects the role of firearms in pediatric suicide. From 2011 to 2020, firearms accounted for 45% of pediatric suicides, a fact Dr. Webb used to emphasize the importance of incorporating firearm safety into suicide-prevention efforts. She also touched on the complex drivers behind the epidemiologic data which leaves certain populations, such as Black youth and members of the LGBTQIA+ community, at significantly higher risk of dying by firearm-related homicide and suicide, respectively.

Key Takeaways

- School-based gun violence is a very real issue, but most of pediatric firearm deaths are a result of domestic-violence incidents, with significant racial and ethnic disparities.
- Firearms play a large role in pediatric suicide, making firearm safety an essential component of suicide-prevention efforts.
- Clinicians should actively screen all patients and families for access to firearms, and counseling should be focused on secure storage and injury prevention.

The remainder of the time was spent examining the role of screening for firearm access and secure storage counseling in the prevention of pediatric gun injury and death. Dr. Webb highlighted the American Academy of Pediatrics' transition from pursuing "the safest home for a child or adolescent" as pursuit of a home without firearms, to a focus on harm reduction. The purpose of routine screening is to identify homes that already have firearms present, so the message should be tailored as such. In cases when the safest cannot be achieved, safer is still better than unsafe.

Dr. Webb closed by encouraging providers to familiarize themselves with different safety and storage mechanisms so they can provide adequate counseling. She also shared examples of how they can get involved in advocacy efforts in their institutions, communities, and beyond. ■


Dr. Bakkum

Dr. Bakkum is a pediatric hospitalist and clinical instructor of pediatrics at the University of Michigan C.S. Mott Children's Hospital in Ann Arbor, Mich.

SESSION SUMMARY

Great Debate: POCUS Versus the Physical Exam: The Volume Volume

Presenters: Michael Janjigian, MD, New York University and Bellevue Hospital, and Ria Dancel, MD, University of North Carolina

Summary author: Arunab Mehta, MD, MEd

Traditionally, diagnosing heart failure (HF) in clinical practice relied on comprehensive medical history, physical examination, and laboratory and imaging tests. However, recent advancements have shed light on more accurate and efficient diagnostic approaches. Drs. Dancel and Janjigian reviewed comparisons of traditional methods to the use of point-of-care ultrasound (POCUS) in diagnosing and assessing HF.

POCUS for HF diagnosis: The speakers assessed the likelihood ratios (LRs) of various diagnostic methods for heart failure. While the traditional approaches yielded LRs ranging from 1.8 (for rales on exam) to 4.8 (for chest X-ray showing pulmonary edema) and 8.9 (for B-type Natriuretic Peptide (BNP) >2,500), the positive LR for POCUS findings of B-line patterns was higher at 12.4. The negative LR for the traditional methods was 0.1 (for BNP <100) and 0.01 (for pro-BNP <300) but others were closer to or higher than 0.5. In comparison, POCUS with no B-lines yielded a negative LR of 0.06. The speakers concluded that routine evaluation might be good enough if the diagnosis is reasonably certain either for or against acute chronic heart failure, but clinicians might save time by performing a focused lung ultrasound looking for a B-line pattern if they are in doubt.

Key Takeaways

- POCUS, specifically assessing B-line patterns, shows promise in improving the diagnostic accuracy of heart failure compared to traditional methods.
- Accurate measurement and interpretation of the diameters of JVP and IVC provide valuable insights into, respectively, venous pressure and right atrial pressure, aiding in the assessment of heart failure.
- Lung ultrasound, particularly evaluating B-line patterns, has the potential to predict outcomes and readiness for discharge in patients with acute heart failure, although further research is needed for its widespread use.
- While the European Society of Cardiology supports the use of lung ultrasound for heart failure diagnosis (but not discharge), the American College of Cardiology does not currently formally endorse its implementation for management or discharge decisions.

Jugular venous pressure (JVP) assessment: Accurate measurement and interpretation of JVP are crucial in assessing heart failure. The speakers emphasized using the right side of the patient, either internal or external jugular vein, and positioning the patient appropriately to evaluate the top of the column of blood, comparing it to the sternal angle of Louis. An elevated JVP greater than eight cm of water (six mm Hg) indicates increased venous pressures. The positive LR for elevated JVP (more than eight cm water) compared to central venous pressure (CVP) was 8.9, while the absence of an elevated JVP had a negative LR of 0.3.

Inferior vena cava (IVC) measurement: POCUS can also aid in estimating right atrial pressures through IVC measurements. A normal IVC diameter is less than 2.1 cm with greater than 50% collapse during inspiration. Conversely, an IVC diameter greater than 2.1 cm with less than 50% collapse indicates elevated right atrial pressures. However, other combinations and values yield less accurate results. JVP and IVC measurements moderately correlated with CVP, and additional data points might be necessary in uncertain or intermediate cases. Venous congestion scoring could be an additional data point to guide therapy and improve outcomes in the appropriate clinical setting.

Lung ultrasound (US) for discharge readiness: Observational analyses suggest that lung US, specifically assessing B-line patterns, may help determine the readiness for discharge of patients with acute heart failure. Studies have shown that patients with more than 15 B-lines at discharge have an increased risk of readmission and/or death. However, limitations exist regarding exclusion criteria and no clinical trials currently support this approach. The American College of Cardiology does not formally support lung ultrasound for heart failure management, while the European Society of Cardiology supports its use for diagnosis but not discharge. ■

Dr. Mehta is an academic hospitalist at the University of Cincinnati in Ohio. He is also an assistant professor of medicine and core clinical faculty with the internal medicine residency and has roles in quality improvement, program evaluation and improvement, and medical education.

SESSION SUMMARY

The Great Debate: ED vs Direct Admission

Presenters: JoAnna Leyenaar, MD, PhD, MPH, Dartmouth Health Children's, and Corrie McDaniel, DO, University of Washington and Seattle Children's Hospital

Summary author: Klint Schwenk, MD, MBA, SFHM

Each year, two million children are admitted to the hospital. Drs. Leyenaar and McDaniel debated whether these patients should be admitted through the emergency department (ED) or directly. They examined critical issues, such as throughput, patient safety, and unanticipated deterioration. There remains high variability in what is perceived as an appropriate direct admission by diagnosis. While parents would prefer the direct admission process, a balance of appropriate safety and preparedness for the unit to accept the patient directly greatly impacts the appropriateness of direct admissions.

Key Takeaways

- Direct admissions are more common than perceived and there is data to support its safety and timeliness.
- An American Academy of Pediatrics policy statement outlines recommendations to support local best practices.
- Trust between referring and accepting clinicians is an essential foundation.
- Intentionality toward equity in implementation is key to avoiding worsening disparities.

Practice guidelines can help with standardized care, but only just over one-third of hospitals reported having direct admission guidelines in 2016. A policy statement by the American Academy of Pediatrics was released in March 2023, which includes recommendations for written guidelines for direct admissions, clear systems of communication and triage, and an ongoing system of evaluation regarding processes and outcomes. ■

Dr. Schwenk

Dr. Schwenk is a pediatric hospitalist at Norton Children's Hospital in Louisville, Ky., where he serves as a medical director of inpatient services. He is also a professor of pediatrics at the University of Louisville School of Medicine, a senior fellow of hospital medicine, and the current chair of the Pediatrics Special Interest Group executive council.

SESSION SUMMARY

Updates on Gastroenterology and Hepatology

Presenter: Dawn Sears, MD, FACG, Texas A&M College of Medicine

Summary author: Amanda Green, MD, FACP, FHM

Dr. Sears's fun, fast-paced speaking style peppered with her wellness moments (and El Arroyo quotes) always make for an excellent learning experience.

Her quick recap on acute pancreatitis included that early refeeding of patients is good, with a lower length of stay and cost. She referenced the September 2022 Waterfall study from the *New England Journal of Medicine*, which was also highlighted in the Update in Hospital Medicine talk. The study was stopped due to harm as patients did worse in the aggressive fluid group than in the control group. We often have patients with acute pancreatitis without an obvious source such as alcohol or a stone, and she recommended remembering DIPI—drug-induced pancreatic injury—caused by steroids, antiepileptics, antihypertensives such as furosemide and losartan, codeine, azathioprine, mercaptopurine, 5-aminosalicylic acid, antibiotics such as tetracyclines, and didanosine. She also recommended a better prognostic score for pancreatitis than Ranson, APACHE-II, or C-reactive protein: the EASY (Early Achievable Severity Index), found at http://easy-app.org/.

In acute liver failure, Dr. Sears presented the results of a study in the October 2022 *Journal of Hepatology*, showing that carvedilol resulted in less decompensation (ascites) and mortality in cirrhosis and improved survival compared to propranolol. Propranolol can cause worse biliary perfusion and refractory ascites. Based on the CONFIRM trial, terlipressin is the preferred vasoconstrictor over octreotide or midodrine administered either as an IV bolus or continuous IV infusions in patients with hepatorenal presentations.[1] It is contraindicated in patients with hypoxia, known ischemia, or worsening respiratory function. Terlipressin can be used with albumin; patients need to be on continuous oxygen monitoring; and it is usually used as a bridge to transplant. COVID-19 vaccinations were strongly recommended in cirrhosis patients—data at the Liver Meeting 2022 reported three doses had better protection, with 100% prevention of death, and 80% prevention of infection. Variceal screening was no longer recommended with endoscopy unless elastography is greater than 20 kilopascals and platelets less than 150,000, or nonalcoholic steatohepatitis with elastography 25 to 50+ and platelets less than 110,000.

One controversy she addressed was regarding anticoagulation in cirrhotic patients. The literature and her experience have recommended no fresh frozen plasma, Vitamin K, or other reversal agents in acute GI bleed, though there is non-agreement on prothrombin complex if the patient is on warfarin.[2] Clots need to be treated with anticoagulation despite platelet counts. While most use proton pump inhibitors (PPI) in GI bleed, she did not recommend this for liver patients—portal hypertension is not an acid problem and results in more *C. difficile* infections and renal issues. Lastly, for liver patients, good protein intake was recommended with nighttime and early morning snacks, shooting for 1 gram of dietary protein per kilogram of actual weight. Less than 21.5 kcal/kg/day was linked with increased mortality in alcoholic liver disease with cirrhosis.

For the 40% of the population that suffers from functional bowel disorders, deprescribing

Key Takeaways

- Pancreatitis patients benefit from early refeeding and non-aggressive IV fluid management
- Carvedilol is superior to propranolol in patients with cirrhosis and portal hypertension
- Avoid PPI therapy in functional bowel disorders, and work instead on naming feelings and mindfulness

PPI was an important component of this management, and she gave instructions on how to do this with a warning that symptoms will increase the first two weeks, but that this can be treated with H2 blockers or Tums.

Stress is strongly related to these symptoms, and mindfulness was noted as a strategy. [A side note here on wellness that I found very helpful was that when you get a patient who aggressively asks you why you cannot fix their problem, you turn and wash your hands in the sink, giving yourself a brief hand massage, and time to manage your emotions, and hopefully the patient has time to reflect on their behavior as well.] Various diets were reviewed for improving eosinophilic esophagitis, and just eliminating milk improved symptoms by 30 to 40%. Fecal transplants are showing comparable benefits to biologics for immune-mediated colitis. For constipation, using 32 Vibrant capsules (they just vibrate in the colon) doubled spontaneous bowel movements per week.

Dr. Sears has seen a large increase in acute alcoholic hepatitis during COVID-19, particularly in younger women. Online Alcoholics Anonymous has 24-hour-a-day meetings. Heavy alcohol use is considered three drinks a day in women and four in men. Other liver toxins mentioned that cause drug-induced liver injury include antibiotics and substances found in complementary and alternative medicine products. Liver injury usually presents one to three months after starting the drug or food, and mortality can be more than 50% if the agent is not stopped.

The last papers presented indicated that we need to avoid unnecessary nil per os (NPO) status. If we have fewer NPO orders, that can lead to more trust from patients. NPO is linked to falls, hypoglycemia, and increased length of stay. She reviewed the American Society of Anesthesiologists' guidelines that eight hours of NPO are needed after a heavy meal, six hours after a light meal, and two hours after clear liquid. ■

Dr. Green is an internal medicine hospitalist and chief medical officer at Paris Regional Health, Paris, Texas.

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SESSION SUMMARY

Clear Eyes, Full Hearts: Update in Heart Failure

Presenter: Dustin Smith, MD SFHM, Emory University School of Medicine

Summary author: Lauren Spaeth, DO

According to the American College of Cardiology, more than 6 million Americans are living with heart failure—the leading cause of hospital admission in patients aged 65 and older. Hundreds of learners filled the ballroom on day one of SHM Converge in March to hear about clinical updates in heart failure (HF) presented by Dr. Dustin Smith, who has a passion for teaching and cardiology.

He focused on updates in diuresis for acute decompensated HF management, the introduction of a new heart failure with preserved ejection fraction (HFpEF) diagnostic scoring tool, and a review of the recently released 2022 American Heart Association/American College of Cardiology HF guidelines, highlighting the use of sodium-glucose transporter-2 inhibitors (SGLT2i).

Updates in ejection classification from the 2022 guidelines help clarify the acronyms used in the remainder of this session update.

Dr. Smith posed questions to the audience with answers supported by clinical trial evidence:

1. Which initial diuresis strategy leads to the greatest incidence of decongestion in acute decompensated heart failure?

The acetazolamide in decompensated heart failure with volume overload, or ADVOR, trial examined the use of acetazolamide in acute decompensated heart failure with volume overload to answer the question, does acetazolamide in addition to standardized intravenous loop diuretics better achieve decongestion in patients admitted for congestive heart failure?

Key Point: Decongestion is safe, faster, and more successful when adding acetazolamide to loop diuretics. Acetazolamide was associated with higher urine output and natriuresis without worsening kidney function, hypokalemia, hypotension, or adverse events.

2. In addition to starting an SGLT2i, which oral loop diuretic is best to convert to upon discharge?

The Transform-HF trial, examining torsemide versus furosemide for the management of heart failure, posed the question, does torsemide decrease mortality compared with furosemide among patients hospitalized for HF? It is known that torsemide has increased bioavailability and downregulates the renin-angiotensin-aldosterone system, but furosemide is the most common loop diuretic used in HF. So, which is the better choice at discharge?

Key Point: All-cause mortality is equal at 26%, with no statistically significant difference between the two diuretics. Bottom line: either one is acceptable to use.

3. What is the probability a patient with unexplained dyspnea has heart failure with preserved ejection fraction (HFpEF)?

First published in *Circulation* in 2018, the authors developed and validated the H_2FPEF score – a new diagnostic tool using demographics and echo parameters for the diagnosis of HFPEF in patients with unexplained dyspnea. A score of ≥6 indicates that the probability of HFPEF is 90% or more.

Key Point: H_2FPEF should be used in the workup of unexplained dyspnea.

4. For which subgroups of patients with HF are SGLT2i not FDA-approved to improve outcomes?

Currently, patients with type 1 diabetes are not FDA-approved for the use of SGLT2i. However, two important trials now support the use of SGLT2i in patients with or without diabetes. The EMPEROR-Preserved or empagliflozin in heart failure with a preserved ejection fraction trial demonstrated empagliflozin reduced the risk of cardiovascular death or hospitalization for heart failure in patients with or without diabetes. The DELIVER trial (for dapagliflozin in heart failure with mildly reduced or preserved ejection fraction) used dapagliflozin in HFpEF and HFmrEF patients, and demonstrated it was also beneficial and safe for patients with or without diabetes.

Key Point: SGLT2i are beneficial in HFpEF for patients with and without diabetes, with the exclusion of patients with type 1 diabetes.

5. For which of the following outcomes are patients with HF on SGLT2i at higher risk?

A systematic review and meta-analysis found that SGLT2i reduce hospitalization by 32% and cardiovascular death by 14% at one year when used in the treatment of HF. Although considered a wonder drug for both its safety and efficacy, it is expensive and costs nearly $400 per month, and its side effect panel includes genital infection.

Dr. Spaeth

Dr. Spaeth is a hospitalist at OhioHealth Riverside Methodist Hospital in Columbus, Ohio. She serves as a member of The Hospitalist magazine editorial board and is a member of the Physicians in Training committee.

Key Point: SGLT2 inhibitors are beneficial in heart failure but are expensive and genital infections can occur.

The landscape of heart failure management has rapidly evolved and there have been many exciting advancements. Ongoing clinical trials and the application of guideline-directed medical therapy lend to a promising future for patients living with HF. For additional reading, check out the American College of Cardiology's 2023 guidelines for the management of HFpEF. ■

SESSION SUMMARY

Ikigai: Finding Joy and Purpose in Medicine

Presenters: Sanjay A. Patel, MD, FACP, SFHM, Riverside Methodist Hospital, Ethan Molitch-Hou, MD, MPH, University of Chicago, Bruno Álvarez Concejo, MD, Ochsner LSU Health Shreveport, and Yoo Mee Shin, MD, Emory University Hospital Midtown

Summary author: Lauren Spaeth, DO

Ikigai is a Japanese concept meaning "a reason for being." It exists at the intersection of passion, mission, profession, and vocation. It's existed for centuries in Japanese culture and was popularized in the 1960s.

According to the speakers, more than 50% of physicians have experienced at least one sign of burnout. Dr. Patel noted that identifying one's ikigai provides "a sense of direction and can be a proposed antidote to physician burnout." The concept of ikigai in relation to hospitalists' wellness was discussed in the January 2023 issue of *The Hospitalist* and subsequently featured in the Early Career Hospitalist track for SHM Converge in March. Learners gathered to learn more about ikigai and its implications for one's personal life and for sustaining a joyful and meaningful career in medicine.

Dr. Shin's journey of finding her ikigai stemmed from her love of connection with people. She turned that into a career focused on faculty development, and that later led her to work more closely on social wellness initiatives for her group at Emory Midtown in Atlanta. Dr. Molitch-Hou began his career volunteering with underserved populations, which led him to find his ikigai by working with a global-health track for residents as a way to have his time and work covered with academic work. Dr. Álvarez shared his experience with burnout at the end of his chief year during the height of the COVID-19 pandemic, despite aligning with his ikigai. He explained how intensity might matter as much as direction and proposed adapting the hara hachi bu concept, keeping your career 80% full. Dr. Patel related that his love and passion for teaching brought him to identify now as a teacher who gets to be a doctor, instead of a doctor who gets to teach.

Learners in the audience quickly found that finding their ikigai was not easily accomplished in one sitting. They partnered with fellow audience members to further evaluate career opportunities and apply a framework to find paths that would provide meaning.

Interested in trying to find your ikigai? Start by considering four questions:

1. What do I love?
2. What am I good at?
3. What does the world need?
4. What can I be paid (compensated) for?

Then move on to the second step, where you combine those answers to find the intersections of your passion, mission, profession, and vocation to identify your ikigai. The speakers noted that ikigai evolves, with no expectation to have anything all figured out at any point. The journey is more important than finding "it," said Dr. Patel. The journey is a personal one, along a continuum of figuring out how to combine your passion and your work as a physician. ■

Dr. Spaeth is a hospitalist at OhioHealth Riverside Methodist Hospital, Columbus, Ohio. She serves as a member of The Hospitalist magazine editorial board and is a member of the Physicians in Training committee.

SESSION SUMMARY

Evolution of Interdisciplinary Teams (IDT): Changing from Silo Mentality to High Reliable Teams

Presenters: Tulay Aksoy MD, FACP, SFHM, Advocate Aurora Health, Maura Porricolo CPNP, PhD, MPH, Montefiore Medical Center, and Olena Slinchenkova, MD, Montefiore Medical Center

Summary author: Semie Kang, DO, FHM

This informative session was geared towards team-building enthusiasts as well as those just starting to develop hospital-based teams. The speakers introduced the meeting with a case study on Amazing Medical Center, a 400-bed metropolitan hospital with five medical-surgical units. This center had no formal interdisciplinary teams (IDTs) and the unit members were devoid of clear rounding roles and responsibilities, standardized timing, structure, and objectives. As a result, lengths of stay, readmission rates, patient experience metrics, and overall physician wellness were all negatively impacted. The audience was polled several times and the vast majority agreed IDTs comprised of physicians, advanced practice practitioners, nurses, physical and occupational therapists, and discharge planners (case managers or social workers) are the foundation of any highly reliable organization (HRO).

The speakers aptly identified five main principles behind every HRO: effective communication, improvement models, continuous learning, accountability, and transparency.

Effective communication is often achieved with the use of a rounding script, clear identification of the rounding leader (usually a nurse manager or case manager), and the expectation of every member of the team to voice their expertise in the patient's care plan. The presenters stressed using improvement models for process simplification for patient throughput; for example, narrowing discussions to discharge sensitive barriers and minimizing consult utilization that can otherwise be deferred to the outpatient setting. Continuous learning requires a safe psychological environment where members can discuss quality or safety issues without punitive repercussions. Safety huddles, debriefs, or anonymous online platforms are examples of event reporting venues. Accountability is essential to sustain positive outcomes achieved with IDTs. The audience agreed accountability and sustainment are the most challenging to achieve because of the need for persistent auditing to ensure minimal deviation from standard practice. Lastly, transparency in data and constant examination of data are imperative for successful HROs. For example, instead of complacently accepting successes as pure chance, always examine why your triumphs happened, i.e., why were our catheter-associated urinary tract infection rates at an all-time low last month? What did we do to have such a successful month, and how can we continue this trend?

The session concluded with a discussion of various process measures to track the standardization of IDT rounding practices. With experience, we all come to recognize that outcomes are impossible without a solid framework of process measures. Amazing Medical Center established a set of IDT best practices and closely tracked the following processes: team participation (who on the IDT team was in daily attendance?), use of workstations (does the team regularly use a workstation to place real-time orders?), catheter use assessments (is there a catheter de-escalation protocol in place?), estimated date of discharge (do all patients have this date documented?), and IDT scripting adherence. This didactic provided a comprehensive and easily digestible overview of what it takes to be a high-functioning organization, no matter how big or small your institution is. ■

Dr. Kang

Dr. Kang is an assistant professor and academic hospitalist at Northwell Health–Long Island Jewish Medical Center in New York. She currently serves as the site director for the division of hospital medicine at LIJMC.

SESSION SUMMARY

The "Enlightened" Use of Ketamine in Hospitalized Patients—The What, When, Why, Where, How

Presenter: Jennifer J. McEntee, MD, MPH, MAEd, University of North Carolina

Summary author: Lauren Spaeth, DO

Key Takeaways

- No lethal dose has been administered from 1974-2019
- It can be an effective analgesic in cancer-related pain, sickle cell pain crisis, ischemic pain, and perioperative pain
- We need more randomized control trials to show its efficacy for widespread use
- Routes of administration inclued IV, intramuscular, subcutaneous, transdermal, and oral

Ketamine, a dissociative agent, is listed on the 21st WHO Model List of Essential Medicines for basic health care systems. It first gained U.S. Food and Drug Administration approval as an anesthetic in 1970 and again in 2019 for treatment-resistant depression in combination with another oral antidepressant. Dr. McEntee, a practicing med-peds hospitalist and palliative care/hospice physician presented a compelling case for the uses of ketamine as part of the Clinical Update series at SHM Converge in March.

Proceeded in history by phencyclidine, better known as "PCP," ketamine binds to the same receptor site, offers an improved safety profile, and has fewer side effects including severe delirium. It has a wide variety of emerging off-label uses and can be an effective analgesic in cancer-related pain, sickle cell pain crises, ischemic pain, neuropathic pain, and perioperative pain.

Ketamine is lipophilic and water-soluble and is many times used as a racemic mixture of its R and S enantiomers. Ketamine acts on multiple receptors: NMDA, opioid, muscarinic, dopamine, norepinephrine, and serotonin. In the acute pain setting, it is thought that through its action at the NMDA receptor, ketamine improves analgesia and decreases opioid tolerance. Additionally, its opioid-sparing properties and analgesia can persist after discontinuation. Its formulation is unique in that the intravenous (IV) solution can be administered orally, rectally, intranasally, IV, subcutaneously, and transdermally. It is metabolized through the liver and there are no renal or hepatic dosing recommendations. Many case reports on experimental usage have been reported, but a 2017 Cochrane review found no sufficient evidence to support ketamine for pain control excluding perioperative use. In 2018, consensus guidelines were published on the use of IV ketamine by the American Society of Regional Anesthesia and Pain Medicine, the American Academy of Pain Medicine, and the American Society of Anesthesiologists.

A challenging patient case that ended poorly, and the spouse's plea for better care, are what motivated Dr. McEntee to advocate for a ketamine infusion policy at the University of North Carolina. After the development of the hospital policy, she was able to successfully help a 40-year-old mother of three with de novo metastatic breast cancer and bone metastasis reduce intractable 10/10 pain, prompting hospitalization, to 0/10 with the support of ketamine infusion. Like many patients, she experienced hallucinations that were only pleasant in nature. As a side note, Dr. McEntee commented that hallucinations of bunnies were common for other patients she has treated. Ultimately, the aforementioned 40-year-old mother of three was transitioned from IV to oral dosing at discharge, and was able to walk into her daughter's graduation, walk up to her bedroom, where she had not slept for six months, and play tennis. Before she passed, she told Dr. McEntee, "Please tell everyone about ketamine and my story."

At the beginning of the session, words that came to the minds of learners when they thought about ketamine were "confusion," and "K-hole," a term used to describe its use in severely injured soldiers during Vietnam. At the end of the session, learners equipped with new understanding were asked again about how they would describe the drug. This time, they responded with the words like "hope," "relief," and "potentially promising quality." Dr. McEntee posed this final question to the audience: ketamine is extremely safe, effective, and potentially very helpful, so why not consider it the next time you're planning for multimodal pain management? ■

Dr. Spaeth is a hospitalist at OhioHealth Riverside Methodist Hospital, Columbus, Ohio. She serves as a member of The Hospitalist magazine editorial board and is a member of the Physicians in Training committee.

Additional Resources

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- World Health Organization. World Health Organization model list of essential medicines: 21st list. https://apps.who.int/iris/bitstream/handle/10665/325771/WHO-MVP-EMP-IAU-2019.06-eng.pdf. Published July, 2019. Accessed May 27, 2023.

OFF-LABEL INDICATIONS	RELATIVE CONTRAINDICATIONS	DOSE	MONITORING	SIDE EFFECTS (DOSE-RELATED)
• Cancer-related pain • Opioid-refractory pain • Sickle cell • Postoperative pain • Acute/chronic and neuropathic pain syndromes	**Grade B** • Pregnancy • Psychosis **Grade C** • Uncontrolled HTN/arrhythmia/CHF/angina/aneurysm • Severe glaucoma • Thyrotoxicosis • Significant liver/kidney damage	• 0.1-0.5mg/kg/h • Minimal drug-drug interactions • Psychomotor effects can occur, manage by dose reduction and haloperidol or benzodiazepine	• CMP daily while inpatient on low-dose infusion • ECG • Urine HCG	• Delirium/hallucinations: manage with haloperidol or benzodiazepine • Nausea: manage with prochlorperazine or haloperidol • Excessive salivation: manage with glycopyrrolate

SESSION SUMMARY

Don't Be a Lone Ranger: Creative Ways to Expand Academic Opportunities Through Multicenter Networks

Presenters: Anne Linker, MD, Icahn School of Medicine, Mount Sinai Hospital, Shradha Kulkarni, MD, University of California, San Francisco, Gopi Astik, MD, MS, Northwestern Memorial Hospital, and Kirsten Kangelaris, MD, MAS, University of California, San Francisco

Summary author: Jeremy Gentile, DO, FACP

You wouldn't think COVID-19 would bring us together, not with masks and social distancing, but that's exactly what this session was about—how four physicians learned to build multicenter research networks and successfully collaborate on four different manuscripts with five more under review, several posters, and this presentation.

The session started with a discussion of shared interests and experiences to illustrate how many people in the room shared common goals and could act as potential collaborators. Shared themes included interests in medical education, research, quality improvement, and gender and racial equity. However, when discussing what it would take to make a multiorganizational research collaborative successful, concerns were common. Challenges that were discussed included a lack of administrative support for these initiatives, poor understanding of the institutional review board and its process, lack of research networking, being introverted, crossing time zones, and lack of mentors.

The speakers developed their collaboration using the Hospital Medicine Reengineering Network (HOMERuN) project, which was established in 2011 and serves as a multiorganizational platform to support multicenter research initiatives. In April 2020, a COVID-19 collaborative was formed to share best practices around adaptive staffing and management strategies. Since that time, group members have continued to commit to regular meetings, with each member taking the lead on some kind of research or quality initiative. Using the strengths of the other members as support, they've been able to produce significant amounts of research in a short time.

But if using an online platform like HOMERuN isn't an option or seems daunting, even finding a single person who shares goals and interests can be the start of a fruitful research collaboration. The places to meet have only expanded over the last 20 years, with both face-to-face and virtual options available. People with shared interests are likely to be found at regional and national SHM meetings, community-based sites like local hospitals, HOMERuN committees, the SHM special interest groups, and on other message boards like Reddit or Twitter. Additionally, research groups can and should include nonhospitalists and even nonclinical personnel when appropriate. For example, research about education could include professors from outside of the sphere of medicine, statisticians, pharmacists, residents, or students. Many times we may know people in other spheres that we fail to consider if we limit ourselves to just the field of medicine.

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There is no instruction manual for developing a successful research group since so much is dependent on the strengths, skills, and personal dynamics each person brings to the whole. However, there's generally a uniform progression of group formation and development in a broad sense. Progression usually occurs through Tuckman's stages of group development: Forming-Storming-Norming-Performing.

Forming, the initial step, is where people may be anxious or curious, but are often reserved, and take time to understand each person's individual working strategy and personality. This is a good time to identify the group's strengths: prior experience, training levels, skills, and hopefully a shared passion around a project or theme. It's also important to determine what data the group has access to and what resources can be leveraged across sites. It is important to determine if there are critical knowledge gaps and plug those if possible. Different disciplines can bring different perspectives and may open doors that otherwise wouldn't be possible.

Once group formation is complete, there will come a storming phase, people are becoming more comfortable and may start to push against the initial boundaries. This can cause conflict within the group and there may be challenges to the group's working style or mission. Roles and responsibilities need to be made clear. Continue to meet regularly and don't forget to set an agenda.

Gradually, the team will move into the norming stage, where differences and conflicts are resolved and team members begin to develop a stronger commitment to the team's goals. With continued investment, norming will give way to performing, where the team begins to meet its full potential as those initial, bumpy phases give way to structured processes and streamlined interpersonal communication and collaboration.

While there is no roadmap, certain strategies can be applied across teams. It is critical to commit to meeting regularly and setting an agenda. Short-term goals and stretch goals can help the team celebrate short-term wins and look forward to long-term payoffs. Don't be afraid to start multiple projects, as long as they fit within the scope and goals of the team. Each person can lead something they're passionate about while leveraging the skills of the other team members. To this end, learn to leverage differences in schedule. Rather than seeing it as a hindrance, use those differences to promote asynchronous work. Additionally, don't underestimate the importance of technology to help push you forward, including video-conferencing, RedCAP, or whatever other software adjuncts your team can come up with.

The panel concluded by urging us not to stop believing in ourselves and in each other. To continue to innovate, expand, and grow; both those relationships yet unexplored at our home institutions and those as-yet unrealized connections to other like-minded people everywhere. ■

Dr. Gentile

Dr. Gentile is an academic hospitalist at Corewell Health West in Grand Rapids, Mich. He serves as associate program director for the Corewell Health/Michigan State University internal medicine residency program, directing process and quality improvement and research. He also serves as a section chief for the acute-care medicine division where he leads education, special projects (including the hospitalist medicine procedure service), and research. Disclosure: Dr. Gentile is a member of the Gilead Speakers Bureau.

SESSION SUMMARY

Herding Cattle: Hospitalists Driving Length of Stay Optimization

Presenters: Brian McGillen, MD, FACP, SFHM, Penn State University/Milton S. Hershey Medical Center and Aziz Ansari, DO, FAAHPM, FACP, SFHM, Loyola University Medical Center

Summary author: Robert A. Craven, MD, FACP, CHCQM-PHYADV, SFHM

In our current post-COVID-19 world, few topics come up more frequently in hospitalist meetings than length of stay (LOS). The COVID-19 pandemic has negatively impacted profit margins across the country and increased LOS. To combat this, health care systems must improve their overall LOS in a manner that is both effective and safe for patient care. Drs. McGillen and Ansari dove headfirst into this topic at SHM Converge in Austin, Texas. They focused more on the optimization of LOS management and not overtly on reducing or fixing LOS. In addition, they also spoke about how hospitalists are optimally positioned to tackle roles in health system leadership, as well as how to transition from bedside hospitalists to leadership roles at the unit and institutional levels.

They opened their presentation with the health care value equation: value equals quality plus service (measured by metrics such as outcomes and patient experience) divided by cost (both direct and indirect) and then multiplied by appropriateness (right place, right time, right patient, and right context).

Dr. Ansari used an excellent analogy of Ethan Hunt from the Mission Impossible movie series. Just as Ethan Hunt was asked to perform a mission that seemed impossible, hospitalists are asked daily to take on various inefficiencies in health care and be more efficient with them. And just like Ethan Hunt didn't shy away from his challenge, neither should we!

The objectives of this talk were to: identify drivers that contribute to LOS management; describe effective methods to improve interdisciplinary rounds; recognize the unit medical director's role in effecting change and streamlining care delivery processes; and illustrate the skillset necessary for leaders to best impact LOS optimization.

Drs. McGillen and Ansari shared the "ABCs of LOS Lingo":

- Average length of stay (ALOS) is exactly what it sounds like, the average LOS for a group of patients for a specific diagnosis-related group (DRG).
- G(M)LOS is the geometric mean LOS, the "expected" LOS of a specific DRG. It is calculated using a square root function which removes potential outliers.
- Case mix index (CMI)-adjusted LOS is LOS/CMI. CMI is essentially an average of a hospital's DRG relative values over time.
- O/E LOS, meaning observed divided by expected, is ALOS/G(M)LOS. G(M)LOS variance is the number of days exceeding a given G(M)LOS, which can also be called excess days.

Understanding these phrases and abbreviations will help you effectively converse with hospital and system leadership.

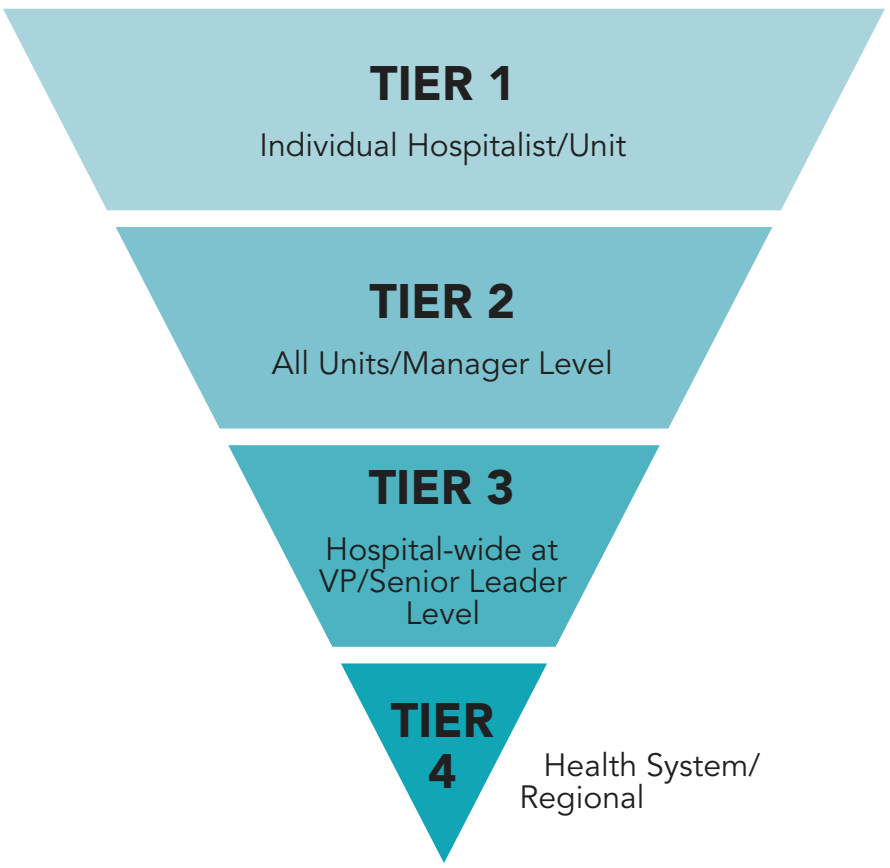
There are various drivers of LOS occurring at different health care levels. At the bedside or unit level, geographic rounding, multidisciplinary rounds (MDR) and/or bedside rounding, early palliative care intervention, and prioritizing testing and/or procedures related to the principal diagnosis were all highlighted. At the hospital level, having a robust Utilization Management/Clinical Documentation Improvement (UM/CDI) department was discussed. The speakers emphasized the importance of a physician advisor program that can translate system goals to frontline workers, provide coaching and education on documentation needs and patient status, and have peer-to-peer conversations allowing the participation of bedside clinicians. At the system level, physician leaders need to set the tone regarding metrics, their urgency, and their application to clinical function. They also need to make sure data are being provided to frontline staff with appropriate interpretation and discussion. A key audience takeaway from this portion of the talk was the acknowledgment that the hospital medicine skillset beyond clinical knowledge applies to leadership at each of these levels.

The presenters discussed the Tiered Daily Management System (DMS), as detailed in the following pyramid diagram. Tier 1 should focus on MDR, communication between the bedside nurse and physician, and establishing and updating an estimated date of discharge, identifying any barriers, and creating unit-level data. Drs. McGillen and Ansari then performed a demonstration of what a good MDR looks like compared to a bad one. I was especially impressed with how they incorporated denial-prevention and clinical-documentation-improvement queries into their MDR. Tier 2 should deal with escalating any obstacles identified in Tier 1, identifying testing delays, discussing bed shortages, and discussing unit-level metrics. Tier 3 should deal with escalating obstacles identified in Tier 2, discussing system outages or anything that can affect throughput, and hospital-wide metrics. Tier 4 should focus on broader, regional issues that affect throughput, regional bed control, and system-wide metrics.

The talk shifted to hospitalist leadership potential and how to transition from one level to the next on the corporate ladder.

To quote from their presenta-

The Tiered Daily Management System (DMS)



Dr. Craven

Dr. Craven is a hospitalist, physician advisor, and vice president of case management for McLeod Health in Florence, S.C. He is also on the executive council for the SHM Physician Advisor Special Interest Group.

Key Takeaways

- Hospitalists are integral to LOS management but may not always recognize or embrace this fact. Skillful participation in every tier of multidisciplinary rounds is key to enhancing patient throughput, minimizing cost, and maximizing quality and revenue.
- Hospitalists are well-positioned to grow into medical director and/or physician advisor roles and can be impactful by effecting change and streamlining larger-scale delivery processes.

tion: "There are 20,000 'medical directors' out there without a skillset. How can you stand out?"

Drs. McGillen and Ansari grouped hospitalist physician leaders into four different categories: hospitalists, medical directors/physician advisors, those at the C-suite or institutional level, and those at the regional level such as chief medical officers or chief compliance officers. They emphasized the importance of understanding and defining "standard work" for each level.

For hospitalists, they mentioned UM/CDI learning, understanding social determinants of health, the importance of attending MDRs, and whether reverse rounding (i.e., rounding on discharges first) was beneficial.

For medical directors or physician advisors, they emphasized understanding payor sources, z-codes for social determinants of health, becoming versed in conflict resolution, and effective communication with senior leadership.

For those in the C-suite, they discussed understanding the DMS tiers, complex care principles, mentorship, narrative control ("staying ahead of the message"), performing Gemba walks (short for "Gembutsu", which is Japanese for "the real place"; this is a Lean principle where leaders spend time in the place where the work actually occurs), and understanding "A3" methodology (this is a Lean problem-solving method and refers to the size of paper it is printed on). They also discussed "no meeting zones," where no meetings are allowed for a certain number of hours in the early morning to improve productivity and allow the DMS system to work. ■

SESSION SUMMARY

The Holy Grail of Survey Design: Achieving a 90% Response Rate

Presenters: Angela Keniston, PhD, MSPH, University of Colorado, and Henry Michtalik, MD, MPH, MHS, SFHM, Johns Hopkins University

Summary author: Mary Ann Kirkconnell Hall, MPH

In this talk, Ms. Keniston, director of data and analytics in the division of hospital medicine at the University of Colorado in Aurora, Colo., provided an overview of survey design. Dr. Michtalik, assistant professor of medicine at the Johns Hopkins University School of Medicine in Baltimore, described practices he uses as head of his health system's annual Hospitalist Morale Survey.

During the design phase, consult resources to design and deploy an effective survey instrument (see additional resources, below). The questions asked and the answers provided are the heart of your survey: each item should be necessary and solicit useful information. Consider whether you can use a validated survey instrument, rather than designing a survey de novo.

If you design your own questions, use familiar words—avoid jargon or slang. Use concrete and specific wording that all respondents will interpret in the same way. Avoid loaded or "double-barreled" questions, e.g., "How interesting *and* educational was this session?" Separate concepts.

Questions should be grouped by topic. Earlier questions should build rapport, and sensitive questions (e.g., sex, race, age, income) should be near the end, unless extremely important. Including "prefer not to answer" options help create a sense of psychological safety for respondents.

For rating-type response options, provide enough choices to capture all options for respondents, but not so many that they can't decide. Be cautious with ranking scales: most people can't rank more than six things reliably. With "check all that apply" responses, people tend to select responses at the top of the list; this can be countered by randomizing the order of the answers. Forced-choice responses, where users must choose yes or no for each option, are effective but can be tiring for respondents. Use open-ended questions sparingly, and only for non-categorical data you cannot get any other way.

Pretest your survey with experts and people who are like your survey population. Ask them to explain their understanding of questions and responses aloud. Check the instrument's reliability (would the same person read this the same way if they took it again?), face validity (do these questions make sense to your population?), content validity (do experts think this measures the concept?), and construct validity.

Consider the best administration mode for your survey. If it's online, test for user friendliness on mobile devices. Don't forget pen and paper—leaving a stack of paper surveys that nocturnists can grab and complete as they leave the office may be more effective than emails.

Dr. Michtalik described the Hospitalist Morale Survey administered annually to five hospitalist programs in one system. The survey uses the Hospitalist Morale Index created and validated by his late colleague, Dr. Shalini Chandra.

Reach out to stakeholders (leadership and local champions) before the survey launch to get buy-in and accurate contact information. Champions should not be in a leadership role; instead, recruit the individual to whom people go if they have a question. Explain the survey's technical aspects and logistics (especially dates). For end users, explain what changes resulted from the survey and why they should take the survey. For all groups, demonstrating that previous surveys led to change is a major motivator.

Use cheerleading language to encourage people to finish and explain the purpose of a question or section. Progress bars are helpful so respondents feel the survey is progressing, but they can be discouraging for longer surveys. Strategically intermingle your short and long sections.

Test the survey distribution method before you deploy it. Check that email addresses are correct before you begin. Spam folders catch a lot of surveys; avoid using an email alias. Inside your institution, you can ask champions to remind people and note the survey in all-staff email reminders. If you need to send emails outside your institution, talk to their information-technology departments. Institutional emails are less likely to get blocked than those from addresses ending in @gmail.com, @yahoo.com, etc., or sent en masse.

Consider sending confidential (user-specific URLs not linked to identifiers) versus anonymous survey links (a single link sent to all respondents). Confidential surveys allow for targeted reminders to those who haven't completed a survey versus email blasts to everyone regardless of completion status.

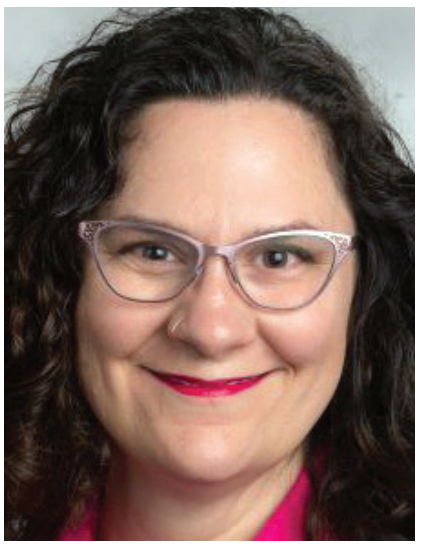
For hospitalists, effective practices include scheduling no more than three reminders per week for alternating a.m. and p.m. times; one hour before shift change seems to work well, and one reminder should be sent on a weekend day.

Empower champions to decide how to remind their colleagues: examples are customizable flyers, pages, text messages, emails, signs, pens, coffee or bagels, and snacks with "guilt labels" with a survey reminder or QR code. Be seen—it is helpful for the overall project team to physically visit sites at least once.

Once the survey response period is over, debrief with stakeholders to see what was effective and what can be improved during the next iteration. Every survey is a learning experience. ■

Key Takeaways

- Be respectful of respondents' time and effort by: starting with the end in mind; designing the survey with and for your users; and using the right tool (custom or validated instruments) for the job. Collect only the information you need and can demonstrably use.
- Make the survey user-friendly with a visually pleasing design, considering where and how respondents will take the survey (on a mobile device, pen, paper, etc.).
- Reach out to stakeholders in advance and identify local champions to gain buy-in. Communicate consistently and respectfully, and bear in mind that technology is constantly evolving, so be prepared to react to snags in real time.
- To build support, plan how you will demonstrate to stakeholders (leadership, champions, and respondents) how the data collected will be understood and used and what specific changes could result. Show that their opinions matter.



Ms. Hall

Ms. Hall is the senior medical writer at Emory University's division of hospital medicine in Atlanta.

Retaining Physicians is Crucial and Can be Hard—But It's Possible

By Thomas R. Collins

As he stood before the audience talking about the high rate at which physicians are leaving health care, and the challenges to retaining them, Alan Hathcock, MD, MPH, FHM, chief executive officer and medical director of Northern Colorado Hospitalists in Fort Collins, Colo., made a guess.

"I'm sure each of you knows somebody who's gone through a similar journey," he said in a session at SHM Converge in March. "Maybe some of you in this audience right now are clinicians who are going through that journey or have thought about it."

Dr. Hathcock

"This is a great loss to the community," he added. "This, really, is why it's so important that we re-imagine physician retention and refocus our strategies and tactics around this topic."

Dr. Hathcock's talk, at times, struck a note of grief on the retention struggles the field is facing. Hospitalist groups cannot excel without retaining their physicians, physicians can find themselves losing their passion for the career they once loved, and patients can lose experienced health professionals to care for them.

But he also struck notes of hope: There are ways to ensure that physicians find their jobs satisfying and want to stay in their jobs—it's just a matter of putting best practices into place, he said.

The numbers paint a picture of an urgent situation. A 2022 report by Elsevier Health found that 47% of U.S. health care workers were planning to leave their role in two to three years.[1] Another 2022 report, in the Journal of the American Medical Association, reported that 20% of physicians said they planned to leave their current practice within two years.[2]

A Mayo Clinic report found that 65% of doctors are experiencing at least one symptom of burnout, which was a big rise from before the COVID-19 pandemic.[3] The study also found a sizable gap between physicians and administrators and managers on the cause for burnout symptoms: 40% of physicians said they thought it was caused mostly or totally by their current employer, while only 19% of administrators and managers thought this. A much higher percentage of administrators and managers thought it was caused equally by management and the nature of being a physician, according to the report.

In hospital medicine, a 2022 survey found that 50% of hospitalists said they were very satisfied with their jobs in 2019, but only 20% said this in 2022. In 2018, 11% said they were dissatisfied with hospital medicine, while 18% said so in 2022.

Dr. Hathcock called these "pretty alarming data."

From strictly a dollars-and-cents perspective, having hospitalists leave their positions is a bad thing. One publication estimated the cost of replacing a single hospitalist at $60,000, but this number could be higher. Dr. Hathcock said his institution puts that cost at $85,000 to $90,000.

"It's expensive—any way you cut it," he said.

Physicians leave their jobs for a variety of

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reasons that might sound familiar: Undesirable schedules, low compensation, unsustainable clinical workloads, a mismatched personal or group culture and values, a work-life imbalance, night and weekend work, administrative burdens, as well as family needs and location.

Most of all—to put it plainly—"people leave bad managers," Dr. Hathcock said.

Why do they stay in their jobs? A sense of community, transparent communication, a feeling of agency and participation, compensation and benefits, flexible scheduling, manageable workloads, physician retention programs, reduced cognitive and administrative burden, time off, gratitude and recognition, and the ability to have a life outside medicine.

Dr. Hathcock reviewed 10 strategies to help retain physicians and keep turnover down:

1. Shared mission: A corporate mission statement is a must, and people in the organization have to know and understand it, he said, and it has to be put into practice.

"Corporate mission statements don't really matter unless you want to be a great leader," Dr. Hathcock said, quoting the title of a 2017 article on the topic.

This statement should say who an organization is, articulate its purpose, and give reasons why a physician should want to be on that team, he said.

2. Building the team: "Focus on getting the right folks from the outset by making sure the people you hire believe in your mission," Dr. Hathcock said. This involves reviewing all parts of the recruiting and hiring process, and having a firm bar for clinical competence, he said.

"Don't interview or hire anybody that is below your clinical standards, ever," he said. "Period. Don't do it."

3. Onboarding: This is crucial, he said, because "first impressions stick."

Onboarding starts the moment a contract is signed, he said. New hires should be guided through the organization's processes, and it's a good idea to pair them with an orientation liaison physician. A mentor for the first year is also a key component, he said. Managers should also get to know family and partners.

4. Culture: An environment needs to be created for people to get to know one another and build a community—organizations should strive for a "culture of helping," Dr. Hathcock said.

"Do those things that show that you're valuing and investing in your docs and providers," he said. "Nothing shows investment like asking for feedback and then doing something about it."

He also emphasized "zero tolerance for toxic, unprofessional behavior."

"One drop of oil poisons the well," he said. "And it will."

5. Scheduling and staffing: Reevaluating how schedules and rounding are done can be revealing, with a focus on flexibility, how schedule requests are submitted, surveys to identify pinch points, and exploring other groups' service models.

"If people don't get their requests and the schedule has no flexibility, they're gonna leave, I promise," Dr. Hathcock said. "If people are overloaded with too many patients, they're gonna leave, guaranteed."

6. Continuous improvement: Be in a constant state of revision and refinement of the work environment and efficiency. This includes clinical processes and workflows and answering whether extra "asks" actually add value.

Always refining is the "key to sustainability," he said.

7. Clinical excellence: There should be a "clear, unwavering focus on high-quality patient care and professionalism," Dr. Hathcock said. This includes patient outcomes, but also clinical education and quality improvement. A quality focus should be considered during recruiting and can be incentivized with bonus metrics, he said.

8. Adapting to change: Lessons can be drawn from the COVID-19 crisis, he said. Organizations need to have a surge and crisis staffing plan, with a system of back-ups. New hires should expect that change will happen, he said.

"We try to instill that mindset from the beginning so that people can hopefully, when the time comes, know that we're trying to change to fix the process, not just change to change," he said.

9. Compensation: This can't be ignored, Dr. Hathcock said.

"Fair compensation is an integral part of hiring and retaining your physicians to some extent," he said. "So, you check the box." He added, "Don't underestimate the value of benefits," and bonuses.

10. Lead from the front: Being a clinician who then rises to leadership "tends to lend a little bit of trust and credibility" when leading clinicians, Dr. Hathcock said.

But this can also be done without having been a clinician, he said. It just requires "leading from the perspective of the front lines.

"Go to that front line, learn about the processes, so that people know that you understand them, and that's your lens as you move forward, and you make decisions with your team." ■

Tom Collins is a medical writer in Florida.

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SESSION SUMMARY

Buprenorphine 101: A Quick Start Guide for Every Hospitalist

Presenters: Daniel Weaver, MD, University of Kentucky College of Medicine, Anna-Maria South, MD, University of Kentucky College of Medicine, Nathaniel Kratz, MD, Columbia University Department of Medicine, and Mat Kladney, MD, New York University School of Medicine

Summary author: Kate Wimberly, MD

In this workshop, the presenters provided an overview of the diagnosis and management of opioid use disorder (OUD) and an introduction to medication for opioid use disorders (MOUD). The presenters introduced a framework that hospitalists can use when prescribing buprenorphine in the inpatient setting. After discussing the initiation and titration of buprenorphine in hospitalized patients, the presenters walked the audience through several complex clinical situations using case-based small-group discussions.

The presenters highlighted the prevalence of OUD among hospitalized patients. The rate of opioid-related inpatient stays continues to rise, and it's crucial that hospitalists can diagnose and treat OUD. The presenters suggest screening all patients for substance use. If patients endorse opioid use, screening should be followed by a nonjudgmental clinical evaluation in which the clinician inquires about frequency, amount, and route of use. The diagnosis of OUD is made using criteria in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.

Many hospitalized patients with OUD experience opioid withdrawal during admission. Hospitalists must be able to recognize and treat opioid withdrawal. Untreated withdrawal often leads to patient-directed discharges. Opioid withdrawal is characterized by a constellation of symptoms including tachycardia, restlessness, sweating, mydriasis, gastrointestinal upset, and gooseflesh skin, among others.

Opioid withdrawal can be treated with MOUD (methadone and buprenorphine), full opioid agonists, and symptomatic management. Medications for symptom management include antiemetics, antidiarrheals, clonidine (for anxiety, irritability, and sweating), and diphenhydramine or trazodone (for insomnia). Buprenorphine (a partial opioid agonist), methadone (a full opioid agonist), and other full agonists treat withdrawal by acting on the mu receptor. Symptomatic management can improve patient comfort but does not treat the underlying process of withdrawal.

The presenters then gave an overview of the U.S. Food and Drug Administration-approved medications for OUD (naltrexone, methadone, and buprenorphine), highlighting the mechanism of action and unique characteristics of each medication. The remainder of the talk focused on inpatient initiation and management of buprenorphine.

The presenters emphasized that buprenorphine is a life-saving medication and that every dose given can prevent an overdose or other OUD-related morbidity. Buprenorphine is a partial opioid agonist with a very high affinity for opioid receptors—these effects prevent overdose and misuse of the medication. Buprenorphine can lead to precipitated withdrawal if administered when a high level of opioid agonist, such as methadone, fentanyl, or oxycodone, is present. Therefore, patients should be in moderate withdrawal before a traditional buprenorphine induction.

The indications for initiating buprenorphine in hospitalized patients are simple—buprenorphine is indicated in any patient with a diagnosis of OUD who is interested in treatment with buprenorphine. Acute liver disease can be a relative contraindication for buprenorphine-naloxone, requiring a slower initiation. Buprenorphine-naloxone should not be initiated in patients with recent methadone use due to the risk of causing precipitated withdrawal.

The presenters provided the following as a sample initiation regimen for a traditional induction, for a patient in moderate withdrawal:

Step 1: Give 4 mg/1 mg buprenorphine-naloxone sublingual

Step 2: Wait 60 to 90 minutes and repeat 4 mg/1 mg dose if still in withdrawal

Step 3: Repeat Step 2 until the patient feels better. A typical Day 1 dose is 16 to 24 mg buprenorphine

On Day 2, give a morning dose equal to the total dose required on Day 1

The presenters then divided the audience into small groups for case-based discussion. The presenters guided the audience through a discussion of buprenorphine management in more complex clinical situations. The clinical situations discussed included cases of precipitated withdrawal, acute pain, and perioperative management of buprenorphine. The presenters also introduced microdosing of buprenorphine as an alternative induction strategy. This strategy can be especially useful in patients with recent fentanyl use or in patients who require full opioid agonists for pain management.

The presenters concluded the session with a discussion on best practices for prescribing buprenorphine on hospital discharge. Patients discharged on buprenorphine must be referred to a local provider who can follow the patient upon discharge. Patients should be discharged with a one- to two-week supply of medication (or until a follow-up appointment). The Consolidated Appropriations Act of 2023 eliminated the need for providers to possess an X-waiver to prescribe buprenorphine; buprenorphine can now be prescribed with a standard DEA license. Training requirements for prescribers go into effect on June 21, 2023, and states' prescribing and training requirements may differ from federal law. ■

Dr. Wimberly

Dr. Wimberly (@kate_wimberly) is a med-peds hospitalist and an assistant professor in internal medicine and pediatrics at the University of Kentucky in Lexington, Ky.

Experts Say Racism a Too-common Factor in Care, and Offer Fixes

By Thomas R. Collins

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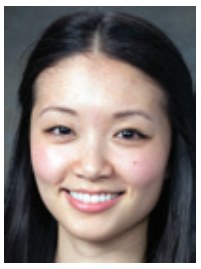
Saying that structural racism permeates more clinical situations than hospitalists are typically aware of, a panel of speakers at SHM Converge in March offered a framework that physicians can use to boost awareness of this pitfall and, in as little as five minutes, help them work toward solutions and better care.

Structural racism—how racism accumulates across institutions as the result of individual beliefs and organizations' practices—can easily be overlooked during the daily grind, but it can come at the cost of care, said Samantha Wang, MD, clinical assistant professor of medicine at Stanford University in Stanford, Calif.


Dr. Wang

"Medicine is not protected against racism," she said. "Instead, it is an institution for structural racism."

Educators need to spend more time bringing the issue to the attention of students, but this is done too infrequently, she said.

"As educators, we talk about poverty, but how often do we talk about oppression?" she said. "We talk about race—we don't talk about racism. We talk about sex, but we don't talk about sexism. We talk about homosexuality and transsexuality, but how often are we talking about homophobia and transphobia?"

Lack of time and lack of expertise are commonly cited barriers to this line of teaching, she said. And physician educators often say they don't even know how to begin.

At Stanford, experts created a framework—called the "5-Minute Moment for Racial Justice Framework"—to develop teaching moments, along with a related case curriculum. When an educator encounters an opportunity to discuss racial justice in clinical decision making, they can use the framework, Dr. Wang said. With their learners, educators will discuss the context of a clinical situation, what the current standard of clinical care is, and how it may be racially unjust, the historical narrative that laid the groundwork for the problem, health disparities, and steps to take to practice more equitably.

In one case, a 14-year-old Black female with lupus has had several days of hematuria and urinary complement, and a renal biopsy is obtained. Lupus nephritis is diagnosed with a concern for end-stage kidney disease (ESKD). In evaluating the patient for ESKD and renal transplant eligibility, the nephrologist looks at the race-corrected eGFR.

To understand how racism might be affecting patient care in this case, educators can turn to the 5-Minute framework, and its five components.

The context of this case—said Salma Dali, MD, a former resident at Stanford and now a fellow in pediatrics at the University of California, San Francisco—is that race correction is used for many clinical calculators, including the eGFR calculator.


Dr. Dali

But, Dr. Dali said. "It is important to be aware of how race correction affects patients so that we can provide more equitable care."

The current standard is that kidney function is estimated by the eGFR, which is calculated using the serum creatinine. But values reported for African American eGFRs are 21% higher after a race correction is applied.

The historical narrative is that "racial essentialism"—the notion that our socially constructed racial categories reflect inherent biological differences—was at play in the creation of this eGFR race correction. In a randomized controlled trial called the Modification of Diet in Renal Disease Study—which looked at the effect of a protein-restricted diet on renal disease—researchers saw that Black patients had higher creatinine values than white patients. So they used a race correction that allowed them to more easily estimate the eGFR, attributing this to the idea that African Americans have a higher muscle mass than whites—even though the study didn't measure muscle mass, and no studies since have shown a relationship between race and muscle mass, Dr. Dali said.

With an eGFR cutoff of 30 for referral to a nephrologist and a cut-off of 20 for renal transplant evaluation, the eGFR can have big effects on the medical care a patient receives, Dr. Dali said.

Given this, the "disparities" portion of the framework becomes clear, she said.

"If we were to eliminate race correction, 31,000 more Black patients would qualify for evaluation for renal transplant," she said.

The steps to equity are changes to the way these calculators are used.

"Clinical calculators should not be based on the assumption that there are genetic differences across races," Dr. Dali said. In fact, many institutions have eliminated race correction for the eGFR, using race-neutral tests such as cystatin C instead, she noted.

Another case involved a 15-month-old Black male with viral bronchiolitis, who'd presented two days earlier with cough and fever with an oxygen saturation of 93%. The decision to admit to the hospital depends on her oxygen saturation level.

Under the framework, the context of the case—said Kevin Chi, MD, clinical assistant professor at Stanford University in Stanford, Calif.—is that the pulse oximeter is widely used to assess hypoxia, but it has been found to have less accurate readings for those with dark skin tones.

The current standard is that the oximeter estimates oxygen levels by detecting changes in light absorption—light is emitted on one side of the finger, with photodetectors on the other side. But variables including pigmentation can affect light absorption.

The historical narrative for this case, Dr. Chi said, is that it wasn't until the early 1990s that the U.S. Food and Drug Administration required representation of more than just white males in studies evaluating medical devices.

The disparity is that occult hypoxemia was three times more likely in Black patients than white patients, Dr. Chi said. This can have huge implications for care if hypoxemia isn't detected, he said.

"Imagine we have a patient and occult hypoxemia is the reason why the emergency room triages them to a different level of acuity," he said. "They wait longer in the emergency room, they're waiting longer to get treatment." Or, if the patient is admitted, maybe they're discharged too soon, he said.

For better equity, he said, clinicians and the medical system have to understand that racism encompasses even medical devices.

"Recognize that reliance on the pulse oximeter to guide clinical decisions may place patients with darker skin at a higher risk of hypoxemia," he said.

Dr. Chi said that the 5-Minute Framework should be seen as a practical starting point for considering how racism can affect care.

"It's not to make the assumption that racism is involved in every decision that we make," he said, "but it is a kind of healthy reflection for us to start to ingrain into our practice—of taking stock, pausing, and thinking about what are all the possible areas of bias that can be introduced to that patient." ■

Tom Collins is a medical writer in Florida.

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