May 2025 Vol. 29 | No. 5

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PRACTICE MANAGEMENT Informed consent pOCUS Transformative role of POCUS in HM PRACTICE MANAGEMENT Supply chain oversight



p11







In celebration of Asian American Pacific Islander Heritage Month, hospitalists share their cultural and professional experiences

IN THE LITERATURE

UC San Diego



Drs. Truong, Kuruvilla, Gelberg, Huang, Djekic, Shahatto, Ally, and Zhang's med-lit reviews

HOW WE DID IT

Drs. Ahrens and Murray-Bainer

p17 Model for rapid service structure change

Prart Std Pustage PAID Kent OH Yan Tata HO Inay Famit #1151

 VISIT US ONLINE FOR EXCLUSIVE CONTENT



IN THE NEXT ISSUE... Clinical approach to LGBTQIA+ medicine

What's New in The Hospitalist

he Hospitalist aims to provide articles on key issues and trends in hospital medicine, continually assessing how to deliver engaging, relevant, and useful content.

Popular clinical columns include In the Literature (brief updates of medical literature relevant to hospital medicine-people love to read them, and groups line up to write them), Key Clinical Questions (concise answers to common clinical questions hospitalists encounter), and Interpreting Diagnostic Tests (concise interpretations of diagnostic tests).

Last year, we added Coding Corner, which quickly became another wellread column. Recently, we added Key Operational Questions (answers to common operational questions). The Flipside (a forum presenting different perspectives on a single topic), and How We Did It (highlights of how individual hospital programs have successfully implemented innovations). In the coming months, we'll debut another new column, HM History (a brief look at things that shaped and influenced hospital medicine).

Other articles fall into these topical buckets, or departments: Practice Management, Pediatrics, Quality, Leadership, Career, Diversity, Technology, Education, Clinical, and Commentary. HM Voices is the online area where SHM members can showcase their creativity through poetry, essays, art, and photos.

Aside from the common denominator of hospital medicine, the biggest tie that binds these columns and articles is you-SHM members. The ideas for new columns often come from editorial board discussions, but sometimes they come from queries submitted by members. Many of the articles are also written by members. There are several ways you can contribute to The Hospitalist, whether it's rallying your group to write an In the Literature column, writing a Coding Corner, submitting a query for an article you'd like us to publish, or agreeing to be interviewed for one of our upcoming features, to name a few.

Visit the Publishing Opportunities page on The Hospitalist website for more details.



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Hospitalists are charged with treating individuals at their most vulnerable moments, when being respected as a whole person is crucial to advancing patients' healing and wellness. Within our workforce, diversity is a strength in all its forms, which helps us learn about the human experience, grow as leaders, and ultimately create a respectful environment for all regardless of age, race, religion, national origin, gender identity, sexual orientation, socioeconomic status, appearance, or ability. To this end, the Society of Hospital Medicine will work to eliminate health disparities for our patients and foster inclusive and equitable cultures across our care teams and institutions with the goal of moving medicine and humanity forward.

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Don't Let Time Get Away from You: Prolonged Services Billing

By Arunab Mehta, MD, MEd, FHM

66-year-old man with a history of hypertension and stage 4 chronic kidney disease was admitted to the hospital for acute pulmonary embolism and started on a heparin drip. It is day two of his hospitalization, and your colleague has billed 99233 based



on the 54 minutes they spent in the care of the patient today. You are called as cross-cover that evening to help with an issue involving multiple supratherapeutic activated partial

thromboplastin time values. You make calls to phlebotomy, make changes to the orders, counsel the patient, speak with the nurse, and document what you have done, taking a total of 15 minutes in this care.

What billing does this qualify for?

You can bill a prolonged services billing code 99418 (for non-Medicare patients) or G0316 (for Medicare patients). These codes can be used when the time for the care of the patient exceeds 15 minutes from the highest level of billing (by time). Thus, the minimum time needed for 99233 to be billed by time is 50 minutes, hence, 99418/G0316 can be used when the time Table 1: Coding Prolonged Services in the Hospital: CPT and HCPCS Codes

INPATIENT AND OBSERVATION SERVICES				
CPT 99418: 15 minutes		HCPCS code G0316: 15 minutes		
Add to	Time on date of service	Add to	Notes	
99223 99233 99236 99255	99223 use at 90 minutes 99233 use at 65 minutes 99236 use at 100 minutes 99255 use at 95 minutes	99223 99233 99236	99223, 99233 use time only on date of visit 99236 use time on date of visit to three days after (CMS does not recognize consult codes)	

Table 2: Billing Prolonged Other E/M Visits

PRIMARY E/M SERVICE	PROLONGED CODE	TIME THRESHOLD TO REPORT PROLONGED	COUNT PHYSICIAN/NPP TIME SPENT WITHIN THIS TIME PERIOD
Initial IP/Obs. Visit (99223)	G0316	90 minutes	Date of visit
Subsequent IP/Obs. Visit (99233)	G0316	65 minutes	Date of visit
IP/Obs. Same-Day Admission/ Discharge (99236)	G0316	110 minutes	Date of visit to three days after

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exceeds 65 minutes for the calendar day in this case. You can add another such code if you exceed another 15 minutes for the calendar day (e.g., 80 mins in this case). Each code grants you 0.61 work relative value units (wRVUs). (see Tables 1 and 2)

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Dr. Mehta is the vice-chair of inpatient clinical affairs, medical director, and assistant professor of medicine in the clinical core faculty for program valuation and improvement at the University of Cincinnati Medical Center in Cincinnati, and the associate editor of The Hospitalist.

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University of California San Diego Health

the Literature

By Alex Truong, MD, Aneesh Kuruvilla, DO, FACP, Anna Gelberg, MD, Bryan Huang, MD, CHCQM-PhyAdv, FHM, Kristina Djekic, DO, Lobna Shahatto, MD, Maryann Ally, MD, MPH, FHM, FACP, and Sherry Zhang, MD

University of California San Diego Health, San Diego

IN THIS ISSUE

- 1. Perioperative Strategy for RASI
- Continuous Versus Intermittent Infusion of β-Lactam Antibiotics in Critically Ill Patients with Sepsis
- 3. Health care Worker Well-Being After a 5-hour Continuous Communication and Intervention: The Well-B Randomized Clinical Trial
- 4. MOUD and Behavioral Health Interventions after Nonfatal Drug Overdose
- 5. Lactated Ringer's Administration Improved Outcomes Over Normal Saline Administration During Sickle Cell Vaso-Occlusive Episode
- 6. Bempedoic Acid for Primary Prevention of Cardiovascular Events in Statin-Intolerant Patients
- 7. Beta-Blocker Interruption or Continuation after Myocardial Infarction
- 8. Stewardship Prompts to Improve Antibiotic Selection for UTI

By Alex Truong, MD

Perioperative Strategy for RASI

CLINICAL QUESTION: Should renin-angioten-

sin system inhibitors (RASI) be continued or discontinued before major noncardiac surgery?

BACKGROUND: Continuation of RASI perioperatively can predispose to intraoperative vasoplegia but discontinuation may also lead to complications.



Dr. Truong

There is a lack of robust evidence to support either continuation or discontinuation of RASI therapy prior to major noncardiac surgery.

STUDY DESIGN: Multicenter, randomized, clinical trial

SETTING: 40 hospitals in France

SYNOPSIS: 2,222 patients planning to undergo major noncardiac surgery were randomized to either a RASI discontinuation strategy (stopping RASI 48 hours before surgery) or a RASI continuation strategy. The primary outcome studied was a composite of death and major postoperative complications such as acute myocardial infarction, acute pulmonary edema, stroke, intensive care unit admission, and acute kidney injury. There was no significant difference between strategy groups, with the composite primary outcome occurring in 22.3% of the continuation group and 22.0% in the discontinuation group (RR, 1.02; 95% CI, 0.87 to 1.19; *P*=0.85).

The secondary outcome of intraoperative hypotension occurred in 54% of the continuation group compared to 41% in the discontinuation group (RR, 1.31; 95% CI, 1.19 to 1.44). The median duration of intraoperative hypotension was nine minutes in the continuation group and six minutes in the discontinuation group with a mean difference in duration of hypotension of 3.7 minutes (95% CI, 1.4 to 6.0 minutes).

BOTTOM LINE: Discontinuation of RASI before major noncardiac surgery does not significantly reduce major postoperative complications but may reduce the risk of intraoperative hypotension.

CITATION: Legrand M, et al. Continuation vs discontinuation of renin-angiotensin system inhibitors before major noncardiac surgery: the Stop-or-not randomized clinical trial. *JAMA*. 2024;332(12):970-978. doi:10.1001/ jama.2024.17123.

Dr. Alex Truong is a hospitalist at UC San Diego Health at the University of California in San Diego.

By Aneesh Kuruvilla, DO, FACP

2 Continuous Versus Intermittent Infusion of β-Lactam Antibiotics in Critically III Patients with Sepsis

CLINICAL QUESTION: Does continuous infu-

sion of β -lactam antibiotics reduce 90-day mortality compared with intermittent infusion in critically ill patients with sepsis?

BACKGROUND: Sepsis, a

life-threatening response to infection, often requires treatment with β -lactam antibiotics such as pipera-

cillin-tazobactam or meropenem. The administration method—continuous versus intermittent infusion—may impact outcomes, but it is uncertain if continuous infusion reduces mortality risk in these patients. This study aimed to assess whether continuous infusion improves survival in critically ill adults with sepsis over 90 days compared to intermittent infusion.

STUDY DESIGN: An international, open-label, randomized, clinical trial

SETTING: 104 intensive care units (ICUs) across Australia, Belgium, France, Malaysia, New Zealand, Sweden, and the United Kingdom



SYNOPSIS: In this trial, 7,202 critically ill adults with sepsis who were treated with piperacillin-tazobactam or meropenem were randomized to receive either continuous (n=3,498) or intermittent (n=3,533) infusions of a β -lactam antibiotic for the duration of their ICU stay or treatment course. The primary outcome measured was all-cause mortality at 90 days post-randomization. Secondary outcomes included clinical cure by 14 days, acquisition of multi-resistant organisms or *Clostridium difficile* infection, ICU mortality, and in-hospital mortality.

Results indicated that at 90 days, mortality was 24.9% in the continuous infusion group and 26.8% in the intermittent group, showing an absolute difference of -1.9% (95% CI, -4.9% to 1.1%) but without statistical significance (*P*=.08). However, clinical cure was higher in the continuous infusion group (55.7%) compared to the intermittent group (50.0%), with an absolute difference of 5.7% (95% CI, 2.4% to 9.1%). Other secondary outcomes were similar and not statistically significant between groups.

BOTTOM LINE: Continuous infusion of β -lactam antibiotics did not significantly reduce 90-day mortality in critically ill sepsis patients compared to intermittent infusion. Nonetheless, continuous infusion demonstrated a higher rate of clinical cure, suggesting a possible therapeutic benefit that warrants further research.

CITATION: Dulhunty JM, et al. Continuous vs intermittent β -lactam antibiotic infusions in critically ill patients with sepsis: the BLING III randomized clinical trial. *JAMA*. 2024;332(8):629-637. doi:10.1001/jama.2024.9779.

Dr. Kuruvilla is an assistant clinical professor of medicine in the division of hospital medicine at UC San Diego Health at the University of California in San Diego.

By Anna Gelberg, MD



CLINICAL QUESTION: Does a brief continuing

education intervention improve the well-being of health care workers (HCWs)?

BACKGROUND: HCW's well-being has been severely impacted, particularly after the COVID-19 pandemic. Small, evidence-based, positive, psychology interven-



Dr. Gelberg

tions show promise in improving HCW well-being. WELL-B is a five-hour continuing education program incorporating 10-minute well-being interventions designed to be accessible and effective for HCWs. The study aimed to evaluate the efficacy of the WELL-B program in improving HCW well-being across four dimensions: emotional exhaustion, work-life integration, emotional thriving, and emotional recovery.

May 2025

IN THE LITERATURE

STUDY DESIGN: Randomized controlled trial

SETTING: Inpatient and outpatient HCWs in the U.S.

SYNOPSIS: 643 HCWs were randomized to two separate cohorts: one group underwent the WELL-B intervention, and a second was the control group. The WELL-B group participated in brief, 10-minute well-being activities across five sessions to address emotional exhaustion, work-life integration, emotional thriving, and emotional recovery in HCWs. Activities during these sessions covered topics such as gratitude, work-life integration, self-compassion, awe, and group-level well-being.

The trial demonstrated significant improvements in HCW well-being within just eight days. Despite some limitations (lack of longterm follow-up and a homogeneous participant group), WELL-B showed that brief, low-resource interventions could be effective in improving HCW well-being.

BOTTOM LINE: The WELL-B intervention is a simple, effective, and scalable tool that can rapidly improve HCW well-being, with promising results for broader implementation.

CITATION: Sexton JB, Adair KC. Well-being outcomes of health care workers after a 5-hour continuing education intervention: the WELL-B randomized clinical trial. JAMA Netw Open. 2024;7(9):e2434362. doi:10.1001/jamanetworkopen.2024.34362.

Dr. Gelberg is an assistant clinical professor of medicine in the division of hospital medicine at UC San Diego Health at the University of California in San Diego.

By Bryan Huang, MD, CHCQM-PhyAdv, FHM

MOUD and Behavior Health Interventions after Nonfatal Drug **Overdose**

CLINICAL QUESTION: How often are medica-

tions for opioid use disorder (MOUD), naloxone, and behavioral health services prescribed after a nonfatal drug overdose, and what is the association between receipt of these interventions and subsequent fatal drug overdose?

Dr. Huang

BACKGROUND: Since the COVID-19 pandemic, the U.S. has faced an opioid use epidemic and a substantial increase in drug overdose deaths, with more than 107,000 lives being lost to drug overdose in 2022. Previous studies have shown that prior nonfatal drug overdose is a risk factor for subsequent nonfatal and fatal drug overdose and that MOUD, naloxone, and behavioral health services reduce the risks of overdose. However, these studies were done in smaller populations, prior to the COVID-19 pandemic, and before illicitly manufactured fentanyl became more prevalent. This study looked at a national population and the association between receipt of MOUD, naloxone, and behavioral health services with the risk of subsequent fatal drug overdose.

STUDY DESIGN: Longitudinal cohort study

SETTING: National cohort of Medicare fee-forservice beneficiaries

SYNOPSIS: 136,762 Medicare beneficiaries aged 18 or older experienced an index nonfatal drug overdose in 2020. In the 12 months after experiencing a nonfatal drug overdose, 17.4% of these beneficiaries experienced a subsequent nonfatal drug overdose and 1.0% died of a fatal drug overdose. Only 4.1% of individuals received MOUD (methadone or buprenorphine) and 6.2% filled a naloxone prescription in the 12 months after the index overdose. Filling a naloxone prescription (adjusted odds ratio [AOR], 0.70; 95% CI, 0.56 to 0.89), receipt of methadone (AOR, 0.98; 95% CI, 0.98 to 0.99) or buprenorphine (AOR, 0.9; 95% CI, 0.98 to 0.99), and receiving behavioral health services (AOR, 0.25; 95% CI, 0.22 to 0.28) were associated with a statistically significant reduction in risk of subsequent fatal drug overdose.

Limitations of this study are that the population consisted of Medicare fee-for-service beneficiaries and might not be generalizable to other populations. Further, the study relied on ICD-10-CM codes and billing or claims data, which may underestimate nonfatal overdoses or medications not coded in the claims data.

BOTTOM LINE: Despite the association of MOUD, naloxone, and behavioral health services with a reduced risk of subsequent fatal drug overdose, only a small percentage of Medicare beneficiaries experiencing a nonfatal drug overdose received these interventions. Given their effectiveness, hospitalists, emergency department physicians, and health systems should improve the provision of these overdose-prevention strategies.

CITATION: Jones CM, et al. Overdose, behavioral health services, and medications for opioid use disorder after a nonfatal overdose. JAMA Intern Med. 2024;184(8):954-962. doi:10.1001/jamainternmed.2024.1733.

Dr. Huang is a clinical professor of medicine in the division of hospital medicine and a physician advisor at the University of California in San Diego.

By Kristina Djekic, DO

Lactated Ringer's Administration Improved Outcomes Over Normal Saline Administration During Sickle **Cell Vaso-Occlusive Episode**

CLINICAL QUESTION: Is there a difference in

the effectiveness of sickle cell vaso-occlusive episode treatment with lactated Ringer's (LR) solution versus normal saline (NS)?

BACKGROUND: Initial

treatment of a sickle cell vaso-occlusive episode includes fluid resuscitation. While the choice of fluids is

clinician-dependent, the majority of clinicians choose NS. However, some studies suggest that NS may actually promote erythrocyte sickling.

Dr. Djekic

STUDY DESIGN: Multi-center retrospective cohort study

SETTING: Hospitals from all four U.S. Census regions

SYNOPSIS: Using the Premier PINC AI database, a total of 55,574 encounters of adults with primary ICD-10 codes for sickle cell disease and vaso-occlusive events who received either NS or LR on day one were identified. Analysis of these encounters revealed that the use of LR for fluid resuscitation had a small but significant improvement in primary outcomes (more hospital-free days) and secondary outcomes (shorter hospital stay, lower 30-day readmission rate, more IV-opioid-free days) when compared to the use of NS for fluid resuscitation.

Limitations included that, given the reliance on ICD-10 codes for population selection, this study could be subject to misclassification. Also, the volume status of included patients on presentation was unknown. This study provides guidance on the type of fluid to use in initial resuscitation, not the amount of fluid resuscitation necessary for adequate resuscitation.

BOTTOM LINE: Vaso-occlusive episodes in the setting of sickle cell disease treated with LR for initial fluid resuscitation have improved outcomes compared to those treated with NS.

CITATION: Alwang AK, et al. Lactated Ringer vs normal saline solution during sickle cell vaso-occlusive episodes. JAMA Intern Med. 2024;184(11):1365-1372. doi: 10.1001/jamainternmed.2024.4428.

Dr. Djekic is a hospitalist and a clinical assistant professor in the division of hospital medicine at UC San Diego Health at the University of California in San Diego.

By Lobna Shahatto, MD

Bempedoic Acid for Primary Prevention of Cardiovascular Events in Statin-Intolerant Patients.

CLINICAL QUESTION: Are there alternatives to statins for primary prevention?

BACKGROUND: Statins that lower low-density lipoprotein (LDL) cholesterol are major therapeutics in reducing both primary and secondary risks of cardiovascular events. However, up to 29% of patients report



Dr. Shahatto

intolerance, most commonly myalgias. Bempedoic acid is an adenosine triphosphate citrate lyase inhibitor targeting the cholesterol synthesis pathway. It reduces cholesterol production and helps clear LDL cholesterol in circulation. It is a prodrug that is activated in the liver and not in peripheral muscle which helps to reduce the risk of adverse muscle effects.

STUDY DESIGN: Masked, randomized, clinical trial

SETTING: 32 countries (including the U.S., Russia, Germany, Poland, South Africa, Canada, Türkiye, Mexico, Spain, Colombia, Australia, and the U.K.) with 1,250 participating sites

SYNOPSIS: In this study, 4,206 primary prevention patients were randomized to receive bempedoic acid 180 mg oral daily versus placebo for primary prevention of cardiovascular events. After an average of four years, they found a statistically significant reduction in high sensitivity-CRP level by 0.34 mg/L in the treatment group compared with a reduction of 0.01 mg/L in the control group. Significant reductions in cardiovascular death, nonfatal myocardial infarction, and stroke were found.

Some interesting limitations are that 66% of the patients overall had diabetes mellitus, the majority of the patients were from Eastern Europe, 58% were females, and the average LDL was around 142.5 mg/dL. Therefore, results might be exaggerated due to higher baseline LDLs. Side effects mentioned were liver function test elevations, acute kidney injury, elevated uric acid levels, gout, and cholelithiasis.

BOTTOM LINE: In patients who are statin intolerant, bempedoic acid is a medication to consider for primary prevention of cardiac events. However, more randomized controlled trials are





IN THE LITERATURE

needed to determine the actual risk reduction, especially in non-diabetics.

CITATION: Nissen SE, et al. Bempedoic acid for primary prevention of cardiovascular events in statin-intolerant patients. *JAMA*. 2023;330(2):131–140. doi:10.1001/jama.2023.9696.

Dr. Shahatto is a hospitalist in the division of hospital medicine and an assistant clinical professor in the department of medicine at UC San Diego Health at the University of California in San Diego.

By Maryann Ally, MD, MPH, FACP, FHM

7. Beta-Blocker Interruption or Continuation after Myocardial Infarction

CLINICAL QUESTION: Is the interrupted use of

a beta-blocker non-inferior to its continued use in patients with a history of myocardial infarction (MI)?



BACKGROUND: Patients with MI are often started

on a beta-blocker as part of goal-directed medical therapy to decrease morbidity and mortality. Guide-

lines from the American College of Cardiology and American Heart Association recommend stopping the use of a beta-blocker after one year if a patient has preserved ejection fraction. However, the ideal length of treatment with beta-blockers post-MI remains unclear.

STUDY DESIGN: Multi-center, prospective, open-label, randomized, blinded-endpoint, non-inferiority trial

SETTING: 49 clinical sites in France

SYNOPSIS: In the ABYSS (Assessment of Beta-Blocker Interruption 1 Year after an Uncomplicated Myocardial Infarction on Safety and Symptomatic Cardiac Events Requiring Hospitalization) trial, 3,700 patients with a history of myocardial infarction, a preserved left ventricular ejection fraction (at least 40%), on longterm beta-blocker medication for the primary indication of myocardial infarction (and not for arrhythmia, uncontrolled hypertension, or migraine), and who did not have a more recent cardiovascular event within the six months prior to enrollment, were randomly assigned to receive beta-blocker treatment continuously or in an interrupted fashion. Those assigned to the beta-blocker interrupted use cohort could have

their beta-blocker dose tapered off. Cross-over from one cohort to another occurred in 5.7% of patients, more frequently in the interruption group. Patients were followed up at six months, one year, and annually thereafter, for up to three years. 95% of these patients had undergone coronary revascularization. Results showed that the interrupted use of beta-blockers was not non-inferior to its continuation with regards to the study's end points of death, myocardial infarction, stroke, or hospitalization for cardiac reasons. There was no change in the quality of life for patients who had beta-blocker use interrupted. Interruption of long-term beta-blocker treatment in patients with a history of myocardial infarction and preserved left ventricular function was not non-inferior to the continuation of beta-blocker treatment.

BOTTOM LINE: Hospitalists should continue to follow the American Academy of Cardiology guidelines regarding beta-blocker use in patients with a history of MI. For appropriate patients one year after having an MI and without a history of congestive heart failure, an ejection fraction of less than 40%, and/or another indication to be kept on beta-blockers (such as arrhythmias), beta-blocker use discontinuation did not improve patients' quality of life or change other end points.

CITATION: Silvain J, et al. Beta-blocker interruption or continuation after myocardial infarction. *N Engl J Med.* 2024;391(14):1277-1286. doi:10.1056/NEJM0a2404204.

Dr. Ally is a hospitalist in the division of hospital medicine at UC San Diego Health, and a clinical professor in the department of medicine at UC San Diego Health at the University of California in San Diego.

By Sherry Zhang, MD Stewardship Prompts to Improve Antibiotic Selection for UTI

CLINICAL QUESTION: Can computerized

provider order entry (CPOE) prompts reduce the use of empiric extended-spectrum antibiotics in patients with urinary tract infections (UTI)?

BACKGROUND: UTIs are a common cause of hospitalization and can be associated with gram-neg-



Dr. Zhang

ative multidrug-resistant organisms (MDROs). However, although many patients are at low risk for MDRO UTIs, clinicians often overuse extended-spectrum antibiotics for empiric treatment. This trial evaluated whether CPOE prompts that provide real-time, patient-specific MDRO risk estimates can reduce the use of empiric extended-spectrum antibiotics for the treatment of UTIs.

STUDY DESIGN: Cluster-randomized trial

SETTING: 59 U.S. community hospitals

SYNOPSIS: This was a cluster-randomized trial in 59 U.S. community hospitals (n=55,412 adults), where 29 hospitals were randomized to the intervention arm with a CPOE stewardship bundle, and 30 hospitals were randomized to the arm with routine stewardship on antibiotic selection during the first three days of the hospital stay for noncritically ill adults with UTIs. The intervention arm had CPOE prompts that recommended empiric standard-spectrum antibiotics in patients with <10% risk of MDRO UTI, in addition to feedback and education. The primary outcome was empiric extended-spectrum antibiotic days of therapy within the first three days of hospitalization. Other outcomes included empiric vancomycin and antipseudomonal days of therapy, days to intensive care unit (ICU) transfer, and hospital length of stay. Compared with groups with routine stewardship, the group using CPOE prompts had a 17.4% (95% CI, 11.2% to 23.2%) reduction in empiric extended-spectrum days of therapy (rate ratio, 0.83; 95% CI, 0.77 to 0.89; *P* <.001). The number of mean days to ICU transfer and hospital length of stay did not differ significantly between the routine and intervention groups.

BOTTOM LINE: CPOE prompts that provide real-time recommendations for patients with low MDRO risk reduced empiric extended-spectrum antibiotic use in noncritically ill adults admitted with UTI without affecting hospital length of stay or days to ICU transfers.

CITATION: Gohil SK, et al. Stewardship prompts to improve antibiotic selection for urinary tract infection: the INSPIRE randomized clinical trial. *JAMA*. 2024;331(23):2018–2028. doi:10.1001/jama.2024.6259.

Dr. Zhang is a hospitalist and an assistant clinical professor of medicine in the division of hospital medicine, department of medicine at UC San Diego Health at the University of California in San Diego.



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6

Non-Medical Consequences: The 6th Element of Informed Consent

By Lisa Simmon, MD, MBA, CHCQM, SFHM

nformed consent is critical to the daily practice of medicine. Conversations about the risks and benefits of treatment options are both a legal requirement and an ethical duty. However, another important question remains: In addition to clinical consequences, should informed consent include a discussion of the non-medical consequences?

Informed consent

The Joint Commission requires informed consent to be documented with five main elements prior to any procedure or treatment.¹ The elements consist of:

- 1. Nature of the procedure
- 2. Risks and benefits of the procedure
- 3. Reasonable alternatives to the procedure
- 4. Risks and benefits of the alternatives
- 5. An assessment of the patient's understanding of the first four elements

In only a few instances would a practitioner not need explicit informed consent, such as the incapacitation of a patient or life-threatening emergencies. Without one of these exceptions, there is a need for "agreement or permission accompanied by full notice about the care, treatment, or service."² In addition to the Joint Commission requirements on informed consent, there exists an ethical duty for physicians to tell patients the truth.³

Physicians commonly emphasize things like bleeding, infection, and postoperative management such as "no lifting more than 10 pounds for one week or until your follow-up." However, physicians who are not strongly involved in care coordination or discharge planning tend not to consider other consequences of treatments that affect patients and families.

This article argues that a discussion of long-term prognosis, functional status, financial constraints, potential burdens to caregivers, and other "non-medical" consequences, in addition to the Joint Commission requirements, is a necessary part of consent.

Need for non-medical aspect of informed consent

BF is the 61-year-old patient who inspired this article, and her case

Providing realistic expectations



illustrates the need for a better informed consent process to include nonmedical and more practical information.

BF experienced a significant stroke and brain injury, which left her dependent on a ventilator, tube feeds, and 24/7 care. Her family was extremely supportive and consistently wanted "everything done." Unfortunately, she was uninsured, and since there was only a very small chance of recovery, the medical team recommended a timed trial of at least six months to determine whether her condition was recoverable. With no insurance and modest family finances, it was impossible to place BF in a care facility, and her family was not prepared to care for her at home, even though a hospital-funded home ventilator was offered.

Ethics opined on the case and agreed that with such an unclear prognosis at the time, suggestions to withdraw life-sustaining treatments (LST) were not appropriate. The ethics team noted that continuing LST aligned with the principles of autonomy (respecting her wishes as reported by her surrogate decision maker) and non-maleficence, as there was no proof of significant harm with continuing LST.

Due to BF's significant care needs, the multidisciplinary team struggled to find a safe discharge plan. In frustration, the care team wondered if the family would have chosen the same treatment plan, if they were made aware of the long-term implications of their decisions.

While there is not much research on the ethics or discussion of non-medical implications as part of informed consent, a handful of papers exist on the ethical challenges in home mechanical ventilation, the considerations of informed consent, and the expectations of patients with prolonged mechanical ventilation. In these papers, there was a relationship between the current informed consent practices and the lack of understanding of burdens as well as long-term implications for the patient (and family).

For physicians, quality of life considerations can be one of the most impactful ethical challenges they face, especially in patients with long-term mechanical ventilation.4 In a study of ventilated patients, only 56% of patients survived one year, with 33% having a good quality of life and only 9% with good functional status.⁵ This poor perceived quality of life value extends beyond the patient to the caregivers, as 49% of caregivers reported experiencing "a lot" or "severe" stress and 84% guit or altered their work status due to the burdens of having a long-term ventilated family member.5



Dr. Simmon

Dr. Simmon is the medical director of care coordination at Banner-University Medical Center Phoenix, and vice president of SHM's Arizona chapter.

Surrogates or caregivers of long-term mechanical ventilation patients indicated that there was a failure to discuss the non-medical aspects of proceeding with tracheostomy; 71% indicated they expected their family member to have no major functional limitations after one year, but only 6% of physicians thought the patient would attain this, and only 4% expected good quality of life.⁵ Other studies indicate surrogates had much more optimism than physicians regarding prognosis and recovery.⁵

7

May 2025

PRACTICE MANAGEMENT

The burdens of caregivers are often overlooked as they are not the patients. Caregivers felt overwhelmed, unsupported, scared, and even isolated when helping their family members.⁶ Beyond the emotional distress, many families felt as if their homes were invaded by home health staff, further increasing the perceived level of burden.⁷ These frustrations from patients and caregivers proves that the "physical and psychological trauma may have been more than clinicians were aware of."6

Dybwik et al. stated, "It may be easy to be enthusiastic on behalf of others when you do not feel the physical burden."7 When obtaining informed consent, practitioners need to consider the ethical implications of autonomy versus paternalism against beneficence and non-maleficence, as decisions make life more complicated due to possible high costs, burdens, and variations in care given due to social determinants of health. They need to put themselves in the position of the caregivers and recognize that some patients require up to 14.4 hours of care per day, which causes up to 2.4 awakenings a night for the caregiver.8 These burdens were considered so significant that in Singapore the Mental Capacity Act instructs a clinician to "take care and act diligently to them [patients and caregivers]," which included obtaining "informed consent and not informed compliance" with treatment team recommendations.8

Beyond the focus of long-term ventilation or tracheostomy, the need for non-medical informed consent extended to other procedures like plastic surgery and joint replacements. Even in these elective procedures, there was a disconnect between the non-medical information given to patients as part of consent.

The following case of KG reflects poor or missing non-medical consent and the effects it had on one patient.

KG was a 42-year-old female who had a "mommy makeover," which included a tummy tuck as well as a breast lift. She consented to the procedure knowing she would have drains post-operatively for "a while," sleep inclined for six weeks, and wear compression garments for "about six weeks." She felt that she was very informed going into the surgery as she was provided with multiple pages of information in her consent process and pre-operative planning.

Postoperatively, while the doctor was accurate in the six weeks of inclined sleeping, she ended up with one drain for four weeks and compression garments for 12 weeks. KG found the garments cumbersome and uncomfortable as they caused skin maceration to the groin that she was concerned would lead to infection. The length

of wear was beyond what she was told in what she thought was a very complete informed consent process. While these burdens were not as limiting as those in ventilated patients, the discussion of post-operative burdens (the non-medical consequences) was lacking in her opinion. Trying to return to normalcy and work was very difficult with garments and drains.

The story of unexpected, unexplained non-medical post-procedure concerns is not just KG's alone. A simple Google search provides a plethora of articles such as "10 Things I Wish I Knew Before My Tummy Tuck," "9 Things No One Ever Tells You About Getting a Knee Replacement," and an article from AARP discussing how "up to a third" of knee replacement patients had "pain and regret."9 If informed consent conversations were thorough and included more non-medical components, there would not be as many articles from upset patients including one article that quoted a knee replacement patient saying, "I didn't expect [it to be this bad] and how long it would take to regain my strength."10

Why physicians do not tell everything

Many physicians argue that they have a therapeutic privilege when discussing treatment plans with patients. Physicians have many reasons for concealing the full truth, including an attempt not to confuse the ill, cause unnecessary pain, or remove hope.¹¹ Bok noted in an article that this "lying" was a right that belonged only to physicians. In other cases, it may be the physician does not fully comprehend the non-medical complications including what life is like living in a long-term acute care hospital, how it feels to wear long-term compression garments, or have continued pain despite expectations for return to functionality or normalcy.

Returning to KG's post-operative case, she was very happy with her results and understood the need for garments for that prolonged period to attain the best result. However, even though KG appreciated the surgical results, out of curiosity, she asked the physician why he did not tell her it was going to be 12 weeks when she first consented. His response was simple: "Do you think that people would go through the surgery if they knew it was going to be 12 weeks [of garments]?"

In this case, it appears the surgeon felt the need to omit some of the consequences in order not to hinder KG's decision-making process for her desired results. Even with KG being happy with the results, it is not ethically supported or appropriate to withhold infor-

mation from a patient. He should have been honest and truthful with KG.

The argument for limiting information beyond the Joint Commission's five elements for informed consent theoretically may balance the principles of beneficence and non-maleficence with physicians assuming they are doing good and not inflicting harm. In the case of KG and some ventilator or tracheostomy patients, the omission of the non-medical aspects may have been the physician's way of allowing the beneficence, or good, to outweigh the potential detriment or burden. For the ventilated patients, it is presumed the physician felt the therapeutic benefits and preservation of life did not cause significant harm, and therefore the knowledge that only a few percentages of these patients would have a good quality of life at the one-year point did not need to be disclosed. However, as physicians, this paternalistic approach is not ethically supported and can indeed cause harm to patients and caregivers.

Unfortunately, there remains a lack of empirical knowledge or retrospective analysis on patient acceptance of the omission of non-medical consent. In reviewing previous studies on expectations and burdens, it would be beneficial to ask if the patient or surrogate knew then what they knew at the one-year point, would they still have proceeded with longterm ventilation? KG proved, in one much simpler case, that they might answer yes. One can imagine that many patients or surrogates faced with an unacceptable (to them) quality of life would never have agreed to aggressive interventions if they knew the statistics that had been withheld from them.

Beyond therapeutic privilege as a reason to limit the information given in informed consent, one could argue patients can retain only limited information when discussing treatment plans with providers; in one study, 40% to 80% of what patients were told during an encounter was forgotten, and when information was remembered, it was typically only 50% correct.¹² In the setting of stress, which is often seen in the ICU when decisions were being made about tracheostomy and long-term ventilation, recall of pertinent information was affected.13 Further, in the hospital setting, the Joint Commission noted that while 90% of patients felt confident in their post-discharge treatment plans, only 50.9% were correct in their recall. $^{\scriptscriptstyle 14}$ If the recall was so poor for patients, it can be easy to argue (wrongly) that providing copious information would not have benefitted the decision-making process, even if non-medical aspects were discussed.

Conclusion

Including non-medical aspects in informed consent discussions is part of a physician's obligation to tell the truth, consider both beneficence and non-maleficence, and empower patient autonomy. Physicians should ensure patients or surrogates are fully informed of not just the medical risks or benefits of the treatment but also of the overall impact on their lives. This non-medical information should be the sixth element required for true informed consent as it remains a physician's duty to provide patients with realistic expectations of medical treatments.

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JHM's Progress Notes

Helping busy hospitalists catch up on vital literature

By Thomas R. Collins

ospitalists would tend to agree that it's great that medical journals are published every month to provide clinicians and healthcare practitioners with new research findings and perspectives that can help them take better care of their patients.

What isn't so great? There just isn't time to read them thoroughly.

This is why Progress Notes exists. The articles—a regular feature of the *Journal of Hospital Medicine (JHM)*—summarize recent findings on important clinical topics and deliver a message that hospitalists can put right to use in their care—all in only about two or three pages of text, not including citations.

"We really wanted to have some very short,

focused articles that a busy hospitalist could pick up and quickly get up to date in a content area," said Erin Shaughnessy, MD, MSHCM, chair of pediatric hospital medicine at the University of Alabama in Birmingham, who has been editing Progress Notes since it debuted in 2019.



Dr. Shaughnessy

In addition to Clinical Progress Notes, the journal also publishes Methodological Progress Notes, which are similar in length and meant to quickly familiarize readers with research methods that are seen in original research articles published in *JHM*.

"We want readers of the journal to be able to understand the research articles that are published in the journal," Dr. Shaughnessy said. "We want to make our journal more accessible to all hospitalists."

Benjamin Kinnear, MD, MEd, associate

professor of med-peds at the University of Cincinnati College of Medicine, who works with Dr. Shaughnessy on editorial review of Progress Notes, said he was a fan of the articles before being asked to become an editor for it, and implements their content in his care.



Dr. Kinnear

"I think JHM's Progress Notes provide an easily digestible review of the most recent information on topics that are salient to hospitalists," he said. "So when the opportunity arose to be part of the editorial team focusing on this type of article, I couldn't pass it up. I learn so much with each article."

Both Drs. Shaughnessy and Kinnear said they use the articles in their teaching, because they are a way to convey key information efficiently.

"I'll pull it up and send it to them, and the learners love it because it's this brief condensed article of some important things that they need to know," Dr. Shaughnessy said.

Dr. Kinnear called them "a great teaching resource for hospitalists who work with residents and medical students, providing a focused, quick read for busy learners on topics relevant to patients they may be caring for."

In one recent Clinical Progress Note, for example, the authors addressed a topic that

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two or three pages of text, not

including citations."

has had evolving evidence reported in the literature. Corticosteroids are not routinely used to treat community-acquired pneumonia (CAP), but some of the literature has shown mixed results on their efficacy. In the article, the authors quickly summarized the discrepant messaging in the literature, then focused on a large, recent study—with 800 patients with severe CAP across 31 centers in France that found that hydrocortisone led to lower mortality and intubation rates and other improved outcomes compared to placebo. They determined that, in the right patient popu-

lation, steroids can be used as an adjunct therapy, as long as clinicians bear in mind the study's inclusion criteria when making their decisions.¹

Dr. Kinnear said one recent Clinical Progress Note that stood out was on caring for hospitalized autistic adults, written by Dr. Thomas Pineo. Dr. Pineo wrote a companion piece about his own journey of recognizing that he is autistic as an adult.^{2,3}

"I thought both pieces were incredibly useful, poignant, and well-written," Dr. Kinnear said. "They helped me understand how I can do a

better job caring for neurodiverse patients and supporting neurodiverse medical trainees."

Dr. Shaughnessy said that a Clinical Progress Note on high-flow nasal cannula therapy for bronchiolitis was particularly popular. It "helped people really understand where highflow oxygen is indicated for bronchiolitis and where it isn't. It had become a very popular therapy and was used in a lot of different hospitals and probably overused. And since then, there have been efforts and studies to reduce what's called overuse of the therapy."⁴

One of the most popular Methodological Progress Notes, she said, covered scoping reviews, a type of review that seeks to map out the landscape of a topic. It became one of the journal's most cited articles, she said, running alongside an actual scoping review on drug loss and theft.⁵

"After we publish Methodologic Progress Notes, we start to see people just become more familiar with those methods and use them in their articles, which is also great for the journal," Dr. Shaughnessy said. "We're making the research article type more accessible to a larger group of authors, I think."

Dr. Shaughnessy said there are at least six Progress Notes articles published each year. Sometimes, editors seek out authors they know are authorities on a topic of interest, and sometimes, articles stem from proposals made by writers. Interested writers can email proposals to reviews@hospitalmedicine.org. Two peer reviewers, and sometimes three, are chosen to review each article.

"I don't think we've ever accepted a submission at face value," she said. "There's typically dialogue back and forth with the authors—between the reviews, the editor and the author to really refine the writing to make sure it's reflective of the evidence and also concise in

answering the question the reader will want answered."

Carefully choosing writers and topics is crucial to the success of the series, she said. If a proposal for a Clinical Progress Note is on a topic that hasn't had much new evidence published in the last three to five years, it likely wouldn't be accepted. If an idea for a Methodological Progress Note covers a method that hasn't been used in *JHM* articles, or at least is particularly encouraged to be used, it probably wouldn't make the cut, she said. The idea is for the series to be a time saver but in a way that is relevant to hospitalists' work.

"As a clinician, I can tell

you it would take a long time to digest the primary literature on a topic which would include trials, in addition to the reviews and things, and come up with an overarching conclusion about what to do for the patient. It would just be extraordinarily time-consuming on an individual clinician basis to do that," she said. "Having a really thoughtful author do that just gives the time, essentially, back to that clinician to go take care of patients."

Tom Collins is a medical writer based in South Florida.

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A Face to Face

By Keshav Khanijow, MD

late 2022, I began developing notable facial discoloration that was spreading around my temples, then periorbitally, and eventually down my cheeks. After two rounds of biopsies, it was eventually diagnosed as lupus. When it began, I hoped it would be a temporary thing, that I would be able to look like my pictures again. I was put on a regimen of oral Plaquenil, topical Desonide, and Pimecrolimus to quell the inflammation. I am thankful to my dermatologist that those agents worked, and the discoloration stopped spreading. However, I was left with scars of post-inflammatory pigmentation on my face.

People who hadn't seen me in a while wondered if I'd gotten punched in a fight. Some patients asked me if I had facial tattoos that I had removed. New people just assumed they were birthmarks I lived with my whole life, but I hadn't. I'd only had them for two years, and I missed my old face. By the summer of 2024, I had come to terms that my face would look different going forward. I got my work portrait retaken to show my new appearance going forward.

I stopped thinking too much about it until an inpatient encounter I had on the wards last week. I'd gotten sign-out that a new patient of mine that morning had anger issues and did not have a good rapport with the care team. She was admitted for vaso-occlusive crisis from sickle cell disease and was having difficulty with pain management. My heart went out to her. I could only imagine the pain she was in and the toll of her repeated hospitalizations when all

she likely wanted was to be home with family and friends. I went to see her, sat by the windowsill, and we talked. Towards the end of the conversation, she asked me "What's that on your face?" I hesitated for a moment. I could either dodge the question and steer the conversation back to her medical care or I could be honest. I felt somewhat of a connection and decided to go with the truth. "I have lupus, so it caused some scarring around my



Dr. Khanijow

Dr. Keshav Khanijow (pronouns: he/him/his) is a hospitalist and assistant professor of medicine at Johns Hopkins University School of Medicine. He has a record of clinical excellence, winning the distinguished JHBMC Hospital Medicine Clinical Excellence Award (2019), and later the JHBMC Hospitalist of the Year Award (2022). Dr. Khanijow has published in peer-reviewed journals about LGBTQIA+ health in the inpatient setting and lectured on this internationally.

face." She lit up, "Oh, I know lupus, it's a chronic disease just like my sickle cell- you know what

I'm going through. We're the same" My lupus was *44* My heart went quiescent by this out to her. I could point so I wouldn't imagine comparing only imagine my symptoms to hers, but my scars the pain she was helped us form a in and the toll new connection. She was noticeably of her repeated happy that her doctor was going hospitalizations to be someone she when all she likely could relate to. There were diffiwanted was to be cult moments over home with family the coming days, but we maintained and friends. " a relationship of mutual respect, and

> titrated her pain medication back to oral tabs.

I had spent the past two years being self-conscious about how people would look at me, and to me, it was always a problem that needed fixing. But to this patient, it was something different. It was a face that helped her connect, helped her feel understood, and helped her navigate a difficult moment in her life. It brought me some comfort to know that my face helped her to face a difficult moment in her life

successfully down

AAPI Heritage Hospitalists Reflect on Their Life and Professional Experiences

In honor of AAPI Heritage Month, hospitalists share their cultural background, challenges, and accomplishments

By Vanessa Caceres

ay is Asian American Pacific Islander (AAPI) Heritage Month. In honor of this month, *The Hospitalist* interviewed several AAPI hospitalists to learn more about how their upbringing influenced them and brought them to hospital medicine. Here are some highlights from those interviews.

Suparna Dutta, MD, MPH, FACP, SFHM

Chair of medicine and associate professor of medicine at University of Connecticut School of Medicine at Hartford Hospital in Hartford, Conn.



Dr. Dutta is a second-generation Indian American who grew up in the Buffalo,

Dr. Dutta

New York, area. Her parents came to the U.S. for a better life, and while they were not physicians, there was always a sense that becoming a physician was a noble profession and a career option associated with education and stability, she said.

Both at home and in her tight-knit South Asian community, there was a strong belief that anything was possible if you worked hard enough in the land of opportunity.

However, her mind was not made up until she went to India after college in the mid-1990s to work for Mother Teresa's nonprofit, Missionaries of Charity. During this time, she was able to help provide care to the "poorest of the poor" in Kolkata and realized how fulfilling a career focused on healthcare and equity could be.

It also helped that one of her grandmothers was a physician, an obstetrician-gynecologist who was the first female physician in her Indian state. Learning about her grandmother's trailblazing work was a strong influence on Dr. Dutta's career path.

After college, Dr. Dutta spent time working on Capitol Hill in Washington, D.C., for the Senate Health Committee. Her time there led her to realize that many healthcare decisions at the national level were being made by others like herself—right out of college, with no previous experience in healthcare.

After medical school and residency, hospital medicine seemed to be a "perfect fit" to allow both direct provision of patient care and a focus on care delivery, both in a specific institution and the community surrounding it, Dr. Dutta said. This also meshed well with her cultural background, which traditionally had put the needs of the community over those over the individual.

"My parent's vision of what a career as a physician looked like when I was young is probably vastly different from what I am doing now," Dr. Dutta said. As a young physician leader, Dr. Dutta often was the only woman and/or South Asian in the room.

"Being a physician leader may not have been on AAPI individuals' radars in the past, due to lack of representation or even awareness that these roles could be part of a career in medicine," she said. However, she has noticed over time that AAPI representation in hospital boardrooms has increased, though she notes there is still room for more AAPI practitioners at the table.

Dr. Dutta says that she has occasionally come across stereotypes about being a woman or being South Asian. She even had a patient recently who assumed her first language was not English. When it comes to these types of events, it's important to acknowledge them and speak up, she says.

For AAPI individuals new to the field, Dr. Dutta emphasizes finding a mentor and being open to the various directions their career can go. She also advises young professionals to look at their background as an asset.

"My parents instilled in me a sense that I could do whatever I wanted if I put in the effort," Dr. Dutta said. "I think that's been a foundational belief for me throughout my career."

Bryan Huang, MD, CHCQM-PhyAdv, FHM

Clinical professor of medicine, and physician advisor for care management in the division of hospital medicine at UC San Diego Health at the University of California in San Diego



Dr. Huang

Dr. Huang, the son of Taiwanese immigrants who grew up in California, says that when his mother learned about the book "Battle Hymn of Tiger Mom," she called herself a "dragon mom." That shows his parents' emphasis on working and studying hard.

"While I grew up in a beach town [Huntington Beach, Calif.], we hardly ever went to the beach. Daily life was focused on hard work rather than fun," he said.

"During childhood, my parents used to tell my elementary school teachers that I would become a great doctor," he said. "Fortunately, despite some pressure, my parents allowed me to discover my own career path." Dr. Huang still ended up in the medical profession, although he did not have other medical professionals in the family.

The focus on a good work ethic and academic success paid off and propelled Dr. Huang to a top-ranking medical school and residency program, and subsequently to a career at UC San Diego Health as a hospitalist. He was associate division chief of hospital medicine at UC San Diego from 2010 to 2015 and subsequently was selected as one of the inaugural physician advisors and chair of the utilization review committee.

It wasn't until his adult life that Dr. Huang began to discover passions outside of work like surfing and volleyball, which have led to a better balance of work and non-work life.

He says he's grateful for the work ethic instilled in him by his family.

Dr. Huang has not faced much anti-Asian discrimination at work, although he did experience some negative sentiment outside of work during the COVID-19 pandemic.

"I am really pleased that UC San Diego has provided a supportive working environment that is welcoming to all. As an AAPI hospitalist, I've only encountered supportive, professional relationships with my colleagues and other staff," he said.

Dr. Huang has observed a growth in AAPI representation in healthcare since his career in medicine began. "When I started at UC San Diego Health 19 years ago, there was only one Dr. Huang in our system—me—and no one knew how to pronounce my last name. Today, there are 20 Dr. Huangs in our system. Overall, I think there has been an increased representation of AAPI individuals in healthcare over the years," he said.

He also has seen more AAPI hospitalists taking on leadership roles.

"In general, there is an increased recognition of our diverse patient and healthcare professional population and the background/talents each individual can bring to the table." Dr. Huang said.

Brian Kwan, MD, FACP, SFHM

Internal medicine clerkship co-director, president-elect of Clerkship Directors in Internal Medicine, and health sciences professor at UC San Diego, and hospitalist at the Department of Veterans Affairs Medical Center in San Diego



Dr. Kwan

Dr. Kwan is a second-generation Cantonese Chinese American and was born and raised in Monterey Park, Calif., a predominantly Asian and Latino suburb in east Los Angeles. His father worked as an electrical engineer, and his mother was a postpartum

nurse at a local hospital. Dr. Kwan volunteered at his mother's hospital, leading to his first exposure to health care settings. That eventually led him to apply to and attend the seven-year honors program in medical education at Northwestern University in Chicago.

"My parents immigrated from Hong Kong and sacrificed a lot in order to put me through educational experiences, such as private high school," he said. "In particular, my dad would often spend extra time tutoring me after school on physics and mathematics. He is one of my biggest role models for being an effective teacher, which has shaped my current focus in medical education."

One challenge Dr. Kwan has faced as an AAPI individual is being labeled by his exterior appearance. It was common during clinical clerkships to get labeled as the "shy" student when in reality, he just prefers to listen before speaking.

"This behavior can have a huge impact on subjective workplace-based assessments or how people perceive you in the work setting in general," he said.

A mentor offered the strategy of trying to talk more frequently than the other students to be perceived as being engaged. It improved his grades.

"Over time, I have made a concerted effort to push myself out of my comfort zone, but I have also learned to embrace my strengths as an introvert and foster effective collaborative groups by giving space for others to participate," he said.



Dr. Kwan says that the emphasis on relationships taught to him throughout his life has shaped his career and has helped him prioritize spending time with his wife, twin daughters, and pit bull. He also values friendships formed through organizations like SHM and the Alliance for Academic Internal Medicine.

"I value contribution and service to professional organizations, which have really accelerated my career development," said Dr. Kwan, who recently chaired the SHM's Physicians-in-Training Committee.

He also feels fortunate to have found a career he loves. "Don't tell my bosses, but sometimes I think, 'I can't believe I'm getting paid to do this' because truly, one of the root desires of being human is to feel like we are making a difference in the world," he said.

Dr. Kwan would like to see more AAPI male representation in higher education or administrative leadership.

"Perhaps some of this discrepancy is related to narratives of overrepresentation of AAPIs in our field and also perceptions of AAPI success as the 'model minority," he said. "Finding AAPI mentors in my space has required me to step outside my institution, and seeing these successful mentors really shine in their roles has helped me to shed the imposter syndrome that I sometimes feel as a leader in the medical education space."

Dr. Kwan encourages young medical professionals, including AAPI individuals, still to consider the value of a health career. "Medicine, in spite of all its challenges, is still an incredible space where one can align professional interests with personal values," he said.

Vivian Lee, MD

Co-director of quality improvement and patient safety in the division of hospital medicine at Children's Hospital in Los Angeles and clinical associate professor of pediatrics at the University of Southern California Keck School of Medicine in Los Angeles



Both of Dr. Lee's parents grew up in Taipei, Taiwan, and they came to the U.S. in the late 1970s for post-graduate training. Her mother was a pediatrician in private practice.

Dr. Lee grew up in coastal suburban San Diego with some Asian Americans but mostly in a white community. "This environment shaped my early experiences, influencing how I viewed myself and often leading me to rely on assimilation as I navigated my personal life, education, and early career," she said.

Although Dr. Lee did not feel pressure to pursue a career in medicine, she credits her mother's career for exposing her to the field. "She passed away in 2011 as I was finishing my first year of hospital medicine fellowship, but her values continue to guide me both personally and professionally-including questioning the why behind our behavior, maintaining curiosity and humility, and honoring a commitment to be and do good for others," she said.

Dr. Lee says that she felt a need early in her career to seek individuality separate from her heritage. That led her to assimilate often into the dominant culture instead of being boxed into stereotypes (or her perceptions of them). That's now changed.

"Over time, I've come to realize the importance of embracing my identity and all the different ways being from an Asian American immigrant family has built and enriched it, rather than distancing from it," Dr. Lee said. "Now, as a mid-career hospitalist and leader, I hope to be a visible representation of Asian American women in medicine-not just for my own career satisfaction, but to empower others."

Dr. Lee was the inaugural pediatric hospital medicine fellow in 2010 at Children's Hospital in Los Angeles. She went on to discover work in quality and value improvement, leading her to oversee quality-improvement efforts within her division. She says that taking on leadership roles is important, as there is not as much AAPI representation in leadership as there could or should be.

Dr. Lee advises young AAPI professionals to take pride in their heritage and seek out those who understand their perspectives. "Medicine needs diverse perspectives, and by showing up authentically, you help provide better patient-centered and culturally competent care and pave the way for future generations who will do the same," she said.

Jenny Y. Shen, MD, FHM

Associate professor of medicine and clinical nursing, medical director of the geriatric fracture center, and director of surgical co-management services in the department of internal medicine's division of hospital medicine at Strong Memorial Hospital in Rochester, N.Y.



Dr Shen

Dr. Shen grew up in Taiwan and came to New York City as a high-school junior. She then completed her medical education in western New York. Dr. Shen is currently an academic hospitalist with a special focus on geriatric perioperative care.

She says that she grew up with the stereotypical family pressure for academic excellence. "It took me some time during college for soul searching and self-reflection to figure out the path of what I want versus what the family wants," she said.

Dr. Shen sometimes fields questions from patients such as, "Where are you from?" or "How long have you been here?" However, she tries to assume benign intentions and have a conversation with them.

She encourages young AAPI professionals entering medicine to see their heritage in a positive light.

"Our past lived experience as immigrants or children of immigrants is a tool and asset to help better serve our patients," she said. "There will always be people out there making us feel the 'otherness,' but finding a way to deal with it and knowing our own worth helps."

Lucy Shi, MD

Assistant professor and director of student-run clinics at University of California Davis School of Medicine in Sacramento, Calif., and member of The Hospitalist's editorial board







"My parents were those typical strict Chinese parents with what felt like a narrow view of success. Looking back, I can see that my parents and probably many other immigrant families focus heavily on education because it was how they were able to immigrate to the United States," she said. "It's also an area where my parents weren't judged by their appearance or accents, and there were 'right' or 'wrong' answers on tests. They really pushed me to focus on education, and this mindset still influences me today."

She believes that background is most likely why she chose to study hospital medicine, with its wide variety of patients and the breadth of experiences you can have as you continue to learn.

With her family's emphasis on community service, Dr. Shi decided to volunteer with the student-run clinics affiliated with UC Davis when she began as a hospitalist. She continues to work at those clinics and recently became director of them. "It's led to a lot more reflection on how my parents, as immigrants with strong accents, have felt disconnected and not represented in spaces they've been in," she said. Many of the patients who choose to seek care at student-run clinics are in this same position, she observes.

Although Dr. Shi sees Asian Americans as a whole as well represented within medicine, she observes that there are still many smaller Asian and Pacific Islander groups that remain under-represented.

She also sees fewer Asian Americans in leadership positions, especially among women. "I think some of the gaps come from cultural differences where there may be a disconnect in skills and values that don't quite fit the traditional U.S. prototype of what leadership means. It's been helpful for me to surround myself with a supportive community at work and mentors who not only support but uplift and reaffirm your value," Dr. Shi said.

Dr. Shi is proud that multiple AAPI medical students have reached out to her for mentorship and support. She encourages them to consider their cultural background and values as strengths to highlight rather than trying to fit within the traditional mold of success.

"For anyone going into medicine, but especially for anyone who feels or looks different than

the traditional norm, I can't overemphasize the importance of finding mentors and a community that makes you feel seen and valued," she said.

Dr. Shi appreciates the goals of AAPI Heritage Month but also thinks "AAPI" is an umbrella term that doesn't quite capture the diversity of ethnicities, languages, and cultures represented.

"Each group faces their own challenges and disparities, and it's important to remember and hear those individual voices," she said.

Evan Symons, DO, pediatric hospital medicine fellow

Former chief resident in internal medicine at the VA Medical Center, current resident (PGY7) in internal medicine-pediatrics at the University of Nebraska Medical Center, all in Omaha, Neb.



Although Dr. Symons was born in Seoul, South Korea, he was adopted when he was three months old.

Dr. Symons grew up in the small town of Decorah, Iowa. He was "Americanized" in many ways, but his adoptive parents had him take part in a summer camp called Korean Adoption Means Pride, or K.A.M.P., held each year in his state for Korean adoptees and their families.

"Growing up in small-town Iowa, I could appreciate that I was different than the majority of my friends or classmates, but Decorah was a very welcoming community," Dr. Symons said.

As a Korean adoptee, he felt a drive to prove his value to the world.

Yet growing up adopted also has helped him better appreciate the value that each person brings—something he says most hospitalists likely acknowledge, but that came to him specifically because of his adoptive background. "I think it affects how I practice medicine by trying to do as many things as we can for our patients so that they can live the lives they wish to, which can be frustrating with the healthcare system we work in," he said.

Dr. Symons initially studied engineering as an undergraduate but switched to medicine to have a career with more interpersonal contact. "This is where I felt my calling to be able to care and advocate for my patients in these stressful and difficult times," he said.

He did an internal medicine-pediatrics residency at the University of Nebraska Medical Center and then was chief resident for the internal medicine program at the VA Medical Center, both in Omaha, Neb. He is currently finishing his pediatric hospital medicine fellowship at Children's Nebraska in Omaha and plans to stay on as a med-peds hospitalist for the University of Nebraska Medical Center and its affiliated hospital, Children's Nebraska.

Dr. Symons says that he encountered some bias during the COVID-19 pandemic.

"Early in the pandemic, it was not uncommon for patients to see me, hear me cough to clear my throat, and ask if I have COVID-19, followed by asking where I was from. I always would say 'Iowa,' but nine times out of 10, I would get asked again where I was really from. I would tell them I was born in Korea but grew up in Iowa for the large majority of my life. This was also not uncommon pre-pandemic either," he said. "I've had patients tell me that I 'speak English good' on multiple occasions."

Although these incidences are frustrating, he says it's important to allow grace while being able to verbalize or identify the bias that may exist.

"Depending on the situation, it is also important to have times to debrief with the people involved to allow for a safe space to discuss the events and what we each can improve on," he said.

Dr. Symons says he has a desire to learn even more about his South Korean background but has also taken part during his fellowship in a two-year Spanish immersion class. At the time of our interview, he was planning to travel to Mexico in March. That stems from his appreciation of how different a healthcare encounter can be for a non-English-speaking patient.

Dr. Symons encourages other young AAPI professionals to find something within medicine that excites them but also to find an activity or hobby outside of the field. "Medicine is hard, and doing life in general is hard. It's important to have something you can go to after a difficult day," he said.

He also advises speaking up if you see or experience a biased encounter.

Vanessa Caceres is a medical writer in Bradenton, Fla.

2025 Masters in Hospital Medicine

 he Society of Hospital Medicine inducted four new Masters in Hospital Medicine (MHM) at SHM Converge 2025 in Las Vegas.

This honor was introduced by SHM in 2010 to acknowledge hospitalists who have made significant contributions to hospital medicine and healthcare overall; it is the highest professional recognition given by the Society.

Congratulations to the 2025 inductees: Guilherme B. Barcellos, MD, MHM; Sunil Kripalani, MD, MSc, MHM; Jennifer S. Myers, MD, MHM; and Rachel E. Thompson, MD, MPH, MHM.

Guilherme B. Barcellos, MD, MHM

Dr. Barcellos has been elected a Master in Hospital Medicine as a pioneer of the hospitalist movement in Brazil and South America while making contributions to SHM and hospital med-



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icine in the U.S. He is the first hospitalist based outside of the U.S. to earn this distinction.

Dr. Barcellos currently practices at Hospital de Clínicas in Porto Alegre, Brazil. Previously, he built the first hospital medicine program staffed by a full-time hospitalist in his state and has also acted as a consultant or facilitator for several other pioneering projects throughout Brazil.

In 2004, he founded GEAMH, the Hospital Medicine Study and Update Group—the first organized movement to promote hospitalists in Brazil. Later, he founded the Brazilian Society of Hospital Medicine and the Brazilian Academy of Hospital Medicine. He has lectured on hospital medicine throughout Brazil, Chile, Argentina, Portugal, and at three SHM annual conferences.

Dr. Barcellos has attended SHM's annual conference nearly every year since 2007 and served as co-chair of SHM's International Hospitalist Section, which is now the Global Medicine Special Interest Group.

Dr. Barcellos also created and promoted Choosing Wisely Brazil to address the overuse of medical treatments and unnecessary care in the Brazilian healthcare system.

His commitment to hospital medicine, friendly and engaging style of communication, and active leadership both in Brazil and within SHM have led to the specialty's growth in countries around the globe.

Sunil Kripalani, MD, MSc, MHM

Dr. Kripalani has been elected a Master in Hospital Medicine in recognition of his leadership, service, and innovations to advance the field of hospital medicine and our society.



Dr. Kripalani

Dr. Kripalani is a professor of medicine and health policy at Vanderbilt University Medical Center in Nashville. He leads the Vanderbilt Center for Health Services Research and serves as vice president for health system sciences. He previously founded and served as chief of the section of hospital medicine.

Dr. Kripalani was among the first hospitalists to pursue a career in research and has mentored

countless junior investigators.

His research is focused on care transitions, medication safety, and reducing readmissions. He has published more than 250 peer-reviewed manuscripts in the Journal of the American Medical Association, the New England Journal of Medicine, and the Journal of Hospital Medicine, among others. He is one of the most highly cited researchers in the field, and his work has shaped best practices for hospital discharge around the country.

Dr. Kripalani has been a member of SHM since 2000. In addition to serving as chair of the research abstract sessions and founder of the Innovations in Hospital Medicine abstract competition, he was a member of the inaugural class of Fellows and Senior Fellows.

He has been of immeasurable service to the *Journal of Hospital Medicine*, serving as assistant editor, deputy editor, and now, a member of the editorial board.

Dr. Kripalani is a founding member of the Hospital Medicine Re-Engineering Network, or HOMERuN, the premier national research network for adult hospital medicine.

Jennifer S. Myers, MD, MHM

Dr. Myers has been elected a Master in Hospital Medicine in honor of her leadership, mentorship, and scholarship.

Dr. Myers currently

serves as the associate division chief of the division of hospital medicine at Perelman School of Medicine, University of Pennsylvania, in Philadelphia, where she also holds the title of professor of clinical medicine and executive director of the Penn Center for Healthcare Improvement and Patient Safety.

Dr. Myers has distinguished herself as a nationally recognized expert in integrating quality and safety into the framework of academic medical centers. Her work has been pivotal in establishing higher standards within medical education.

She has more than 80 peer-reviewed publications, has presented countless abstracts and workshops, and is a respected researcher in healthcare quality, studying strategies to integrate quality into safety into medical education and improve care delivery in the hospital.

Dr. Myers has supported and nurtured new career pathways in quality, safety, and hospital medicine, in particular, for women in medicine. She has mentored more than 100 individuals in her career and has championed programs to support hospitalist mothers at Penn to promote well-being and community.

Dr. Myers led the development of SHM's Quality and Safety Educators Academy, which has trained more than 700 faculty members since its inception in 2012. She also received SHM's Award of Excellence for Clinical Leadership for Physicians in 2010.

She has been a member of SHM since its founding in 2002. Dr. Myers has also served as faculty at SHM's Academic Hospitalist Academy, co-chair of the innovations abstract selection committee, and member of the Hospital Quality and Patient Safety Committee, and founding member of HOMERun research collaborative. MHMDr. Myers was the founding president of SHM's Philadelphia Chapter and serves on the editorial board of the Journal of Hospital Medicine.

Rachel E. Thompson, MD, MPH, MHM

Dr. Thompson has been elected a Master in Hospital Medicine in honor of her consistent, long-standing service to patients, colleagues, SHM, and the field of hospital medicine.



Dr. Thompson

Dr. Thompson currently serves as the chief medical officer at Core Clinical Partners and is an adjunct professor at the University of Nebraska Medical Center.

Dr. Thompson's impressive achievements in leadership, clinical care, and educational leadership, especially in perioperative medicine, have been instrumental to the specialty's—and to the Society's—growth.

During her tenure as SHM president and her time on the Board, her leadership guided the Society as it navigated the post-pandemic world. She traveled across the country—and around the globe—to meet SHM members to better understand the state of hospital medicine and how SHM can better serve hospitalists.

As an SHM member at large, Dr. Thompson helped to shape SHM's approach to chapter growth and partnerships, including as president of the Pacific Northwest Chapter, a member of the Chapter Support Committee, and a mentor in the Chapter Mentorship Program.

More recently, she took on a last-minute faculty position at SHM Leadership Academy, stepping in for a faculty member who had fallen ill, and she performed flawlessly.

Her leadership has benefited SHM, the profession, and patient care. \blacksquare

MHM Nominations

A Master in Hospital Medicine is the highest honor in hospital medicine. Nominees should exemplify excellence through personal character, positions of honor, contributions to SHM, distinction in practice, education, and research, and achievements in hospital medicine. They must be highly accomplished in hospital medicine, demonstrating their impact through clinical care excellence, healthcare initiatives, education and research, publications, volunteer work, or administrative roles.

Current SHM Board members are not eligible for nomination. While most Masters will be physicians and hospitalists, non-physicians and non-hospitalists of exceptional merit and contributions to SHM and hospital medicine (including SHM employees and contractors), may be nominated for mastership. Nomination materials are active for five years from the date of submission. The Masters Selection Committee evaluates nominees and recommends approvals to the SHM Board of Directors. For inquiries and submissions, contact SHM at fellows@ hospitalmedicine.org with "Submission for Master's Candidate" in the subject line. The deadline for nominations is October 31, 2025. 🗖



Dr. Myers

The Transformative Role of **POCUS in Hospital Medicine**

By Elian D. Abou Asala, MD, MBA, and Tanveer Singh, MD, FACP, FRCP (Edin), FHM

POCUS is a new column on pointof-care ultrasound. This column aims to explore evolving clinical applications. educational advancements, and the clinical impacts of POCUS through the insights of frontline hospitalists.

oint-of-care ultrasound (POCUS) has emerged as a critical tool in hospital medicine, offering real-time imaging that enhances diagnostic accuracy, facilitates the rapid detection of life-threatening conditions, and improves procedural precision.1 Its increasing adoption reflects its potential not only to elevate patient care but also to optimize healthcare efficiency by reducing diagnostic delays and minimizing reliance on more expensive imaging modalities.

The value of POCUS in clinical practice can be conceptualized as (Quality + Service)/Cost, confirming its ability to enhance diagnostic certainty, support bedside interventions, and lower overall healthcare expenditures. As a highly versatile, non-invasive modality, POCUS is transforming traditional diagnostic paradigms and becoming an indispensable asset in modern hospital medicine. Additionally, its portability enables clinicians to make critical decisions in time-sensitive scenarios, particularly in emergency and critical care settings.1

The expanding body of evidence supporting POCUS highlights its efficacy in guiding fluid management, vascular access, and assessment of cardiac and pulmonary conditions.1 Furthermore, its role in medical education continues to grow, equipping trainees and physicians with hands-on skills that improve patient safety and clinical outcomes. As healthcare systems strive for higher efficiency and cost-effectiveness, the integration of POCUS into routine practice represents a milestone in delivering high-quality, patient-centered care.

Clinical applications

POCUS enhances clinical decision making across various domains. In acute care settings, it aids in the rapid assessment of life-threatening conditions such as pneumothorax and cardiac tamponade, reducing diagnostic delays and allowing rapid, appropriate triage and treatments.^{2,3}

Additionally, POCUS has revolutionized procedural guidance,



improving safety and precision in procedures such as thoracentesis, paracentesis, and lumbar puncture.⁴⁻⁶ Furthermore, POCUS has also proved to assist with peripheral intravenous catheter placement in patients with difficult IV access, increasing accuracy and efficiency and decreasing complications by enhancing vein visibility and evaluation.7

POCUS proves valuable in dynamically assessing fluid status, cardiac function, and responses to interventions like fluid resuscitation.8 This ongoing utility supports its continued use in hospitalized patients, even when initially performed in the emergency department upon arrival. With that said, low-certainty evidence indicates that POCUS, when combined with the standard diagnostic pathway, improves sensitivity and specificity compared to the standard pathway alone.9

Impact on patient outcomes

The implementation of POCUS in hospital medicine, much like its established role in critical care and emergency medicine, has demonstrated measurable improvements in patient outcomes.9 Studies have shown that POCUS-guided procedures are associated with fewer complications, such as a lower incidence of pneumothorax during central venous catheterization and reduced bleeding risks in paracentesis, thereby enhancing procedural safety.5,10

POCUS has the potential to minimize the reliance on advanced imaging modalities, such as CT or MRI, which not only decreases radiation exposure but also contributes to overall cost reduction in healthcare. By expediting diagnosis and intervention, POCUS can potentially decrease length of stay and improve patient flow, and hence assist in optimizing bed utilization and resource allocation. As its role continues to expand, POCUS stands as a transformative tool that aligns with the goals of high-value, patient-centered care, reinforcing its indispensability in modern hospital medicine.9

The use of POCUS plays a vital role in bringing clinicians "back to bedside," which usually leads to better patient experience and physician satisfaction. Also, the utility of POCUS cannot be overstated in rural and critical access hospitals, which usually lack radiology support.¹¹ Patients from these hospitals are often transferred to secondary or tertiary care centers for imaging needs. Since these hospitals are usually staffed by one or two hospitalists, having POCUS skills can make an immense difference in patient outcomes by reducing the transfers and expediting patient care.

Education

The Accreditation Council for Graduate Medical Education (AC-GME) does not currently mandate POCUS training as a part of the internal medicine (IM) residency curriculum, and as a result, many hospitalists are not certified in POCUS. However, IM residency curricula are increasingly integrating ultrasound training and promoting competency development among future healthcare professionals.¹² The hospitalists are at the forefront of inpatient education



Dr. Asala

Dr. Abou Asala is a hospitalist and associate staff physician at the Cleveland Clinic in Cleveland. Dr. Singh is a hospitalist and associate staff physician in the department of hospital medicine at Cleveland Clinic Community Care in Mayfield Heights, Ohio.

for internal medicine residency programs, highlighting the critical need for POCUS skills among hospitalists. This starts during the residency program, so that recently graduated hospitalists usually have some working knowledge of POCUS. The hospitalists need to continue to sharpen their skills by taking regular courses and, most importantly, using POCUS on a day-to-day basis in their own clinical practice. This approach ensures that hospitalists gain practical experience that they can pass on to their trainees.^{12,13} Learn about SHM's POCUS Certificate of Completion program in the sidebar.

Challenges and considerations

Despite convincing evidence supporting POCUS's potential, several challenges continue to hinder its widespread implementation. Variability in operator skills calls for standardized training protocols

POCUS

and competency assessments to ensure consistent and accurate performance across diverse clinical settings. In resource-limited environments, the prohibitive costs of equipment, maintenance, and infrastructure pose significant barriers to adoption, limiting access to this valuable diagnostic tool.¹⁴ Image archiving is important for quality assurance, accessibility, image comparison, and overall collaboration between healthcare practitioners. With various kinds of devices and electronic health records, this is challenging and expensive for the hospitals. The cost of devices, image archiving, and faculty training often must be weighed against POCUS's other tangible benefits (like reducing length of stay, increasing patient experience scores, etc.). There is a need for more studies showing that POCUS utilization can mitigate these costs, bring positive revenue, and reduce diagnostic errors.

Additionally, disparities in training opportunities may lead to uneven proficiency among clinicians, further impacting the reliability of POCUS interpretations. While POCUS provides substantial clinical benefits, there is also a risk of over-reliance on its findings or misinterpretation due to limited experience, which could result in diagnostic errors or inappropriate management decisions.

To mitigate these risks, ongoing education, hands-on training, and robust quality assurance measures are critical to maintaining high standards of practice. Addressing these challenges through comprehensive training, technological advancements, and system-wide oversight will optimize the clinical utility of POCUS and reinforce its role as a cornerstone of modern bedside diagnostics.¹⁵

Future directions

POCUS is poised for significant advancements, driven by emerging technologies such as artificial-intelligence-assisted interpretation, miniaturized portable devices, and



SHM hosts POCUS learning sessions at Converge.

enhanced imaging resolution.¹⁶ Artificial intelligence integration holds tremendous potential in reducing operator variability, improving diagnostic accuracy, and facilitating broader adoption by providing real-time guidance and automated image analysis. The development of machine learning algorithms may assist clinicians in differentiating between subtle pathological findings and normal variations. Additionally, the incorporation of telemedicine capabilities into PO-CUS devices may expand access to expert interpretation, allowing for remote consultations and improved decision making in resource-limited settings.10,17

Certain operation initiatives like the creation of a dedicated POCUS team staffed by a skilled hospitalist can be an effective strategy. This team can assist the rounding teams by performing POCUS-guided procedures and diagnostic assistance, limiting interruptions for the rounding teams. Although not an absolute necessity, the relative value units generated from these procedures may even pay for the costs related to establishing a POCUS program. However, the utility of POCUS goes well beyond generating relative value units and

instead creates positive value for patients, clinicians, and healthcare systems, which should be the driver of implementing such programs in the future. Furthermore, expanding educational initiatives and integrating POCUS training into medical curricula will be essential to maximizing its potential and ensuring widespread competency among healthcare providers. By incorporating technological advancements and robust clinical integration, POCUS is set to redefine bedside diagnostics and procedural guidance, reinforcing its indispensable role in the future of hospital medicine.¹⁰

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Committee, currently led by Nilam J. Soni, MD, MS, Ria Dancel, MD, FAAP, FACP, SFHM, Ricardo Franco, MD, Linda M. Kurian MD, Charles LoPresti, MD, SFHM, Benji K. Mathews, MD, MBA, SFHM, Trevor Jenson, MD, and David Tierney, MD, FACP, develops and maintains the COC standards.

Scan the QR code for more details.



How We Did It

The Committee That Could: A Model for Rapid Service Structure Change

By Sarah Ahrens, MD, and Samantha Murray-Bainer, MD

How We Did It is a new column that aims to highlight how individual hospitalist programs have successfully implemented innovations in medical programs, educational programs, wellness initiatives, or operational improvements. The goal is to provide practical, actionable insights to hospitalists nationwide, offering a roadmap for similar success.

Problem

In 2021, the University of Wisconsin division of hospital medicine was at a tipping point. The constant demand for expansion of services, uncertainties of the pandemic, and long hours led to physician and advanced practice practitioner (APP) burnout. Additional contributing factors included the traditional model of rounding and admitting on seven-day, 12-hour services, lack of control over one's daily workflow, the unpredictability of shift duration, the role switching between rounding and admitting on the same day, and work bleed-

Key Takeaways

- Have a mandate and clear objective.
- Keep the group small yet representative of the larger group.
- · Meet often. Standing meetings work best. If it isn't on the calendar, it won't happen.
- Accept new ideas. Set aside your ideas and truly listen to others. What works best for an individual might not work best for the group.
- Be transparent. No one likes or readily accepts change without explanation. Communicate clearly and often.

Figure 1. Process and Timeline

ing into home life. In the following paragraphs, we introduce you to our Service Structure Task Force (SSTF), a nimble committee that rapidly led to service-structure change and addressed many of these problems.

Solution

Building the SSTF

In 2021, a senior hospitalist in our division (and one of the authors) recognized the discontent within the group and, with endorsements from division and department leaders, created the Service Structure Task Force. The goal of this task force was to transparently and rapidly address service-structure-related problems in an FTE-neutral manner.

As a key part of this, she carefully chose SSTF members. Representation from experienced division members was essential. However. excluding official division leaders allowed task force members to speak more freely. Next, a few recently hired hospitalists were asked to join to provide perspectives from prior jobs or represent the wishes of those straight out of residency. Any service-structure change would affect APPs, and the lead APP was included. We deliberately included a nocturnist since any service-structure change would impact the nocturnists. Ultimately, the eight chosen task force members were highly engaged in the discussion and invested in the outcome.

Accomplishing change thoughtfully and rapidly

First and foremost, task force members committed time and effort to the work. The SSTF met weekly for several months, keeping the conversation at the forefront of our minds and driving the agenda forward rapidly. An essential part of our work was obtaining data thoughtfully. The SSTF created a survey that intentionally used creative questions and free-text answers (rather than a Likert scale) to identify significant problems with our existing schedule.

The SSTF valued the opinions and ideas shared in the survey. We listened carefully and openly to division members and each other. Considering that, we analyzed the current service structure, incorporated survey data, and proposed a new model that used the same total full-time equivalents (FTEs) with distinct rounder and admitter roles and the option of shorter rounding shifts.

The SSTF was transparent with our work and proposed changes. We updated our division monthly with survey results and proposed service-structure changes. We openly explained the anticipated downsides of changes. For example, lower FTE-weighted shifts meant more days worked each month. We put the proposed service-structure changes to a division-wide vote, and the majority favored changing to the admitter rounder model. We implemented that change six months after the committee first met. The process and timeline are summarized in Figure 1.

Outcomes and impact

We analyzed the impact on readmission rates and lengths of stay (LOS). We retrospectively compared readmission rates and LOS during the 12 months preceding the change (April 2021 to March 2022) to the 12 months after implementation (April 2022 to March 2023). We compared readmission rates and LOS for our seven hospitalist services and all hospitalized patients at University Hospital (UH), where this change was implemented. Patients primarily managed on hospitalist services account for approximately onefifth of all hospitalized patients at UH. We found no statistical difference in readmission rates or LOS after the change.

What about clinician satisfaction? We surveyed hospitalists



Dr. Murray-Bainer Dr. Ahrens is a UW Health hospitalist and a clinical professor in the

division of hospital medicine within the department of medicine at the University of Wisconsin School of Medicine and Public Health in Madison, Wis. She founded and served as the inaugural chair of the division of hospital medicine Service Structure Task Force. Dr. Murray-Bainer is a UW Health hospitalist, an assistant professor in the department of medicine, the University Hospital Clinical Services chief, and the interim vice chair of clinical affairs at the University of Wisconsin School of Medicine and Public Health in Madison, Wis.

before and after this change to assess its impact on job satisfaction. Hospitalist physicians (n=28) and APPs (n=8) were surveyed six months after implementing the admitter-rounder model. The survey showed that 78% of physicians and 100% of APPs who responded felt the new service structure was an improvement from the prior structure; 53.6% of physicians and 87.5% of APPs answered "yes" to the question, "Do you feel that there are fewer days you leave work exhausted since the start of the new service structure?"

Although not formally measured, the new service structure increased physician schedule flexibility, including the ability to flex FTE up and down more quickly when life demanded it. Our division has also had excellent physician retention since this change, with only a few physicians leaving since 2022, usually for fellowship or retirement.



HOW WE DID IT

Lessons learned

A purpose-driven group is essential. The SSTF members were carefully chosen and committed to the committee's work. The committee met weekly, worked around each other's schedules, and valued each person's input. This allowed us to generate new ideas and implement changes quickly.

Change begets change. When we first changed the service structure, the new schedule resulted in a massive delay in publishing our schedule, which was difficult for our division members. As a result, a subgroup of the SSTF revised the scheduling process (how our schedule is made and published)

with excellent results that persist today. Though this was not formally assessed, division members have said they are much happier with the timing of the schedule publication than before this change.

We learned to use data to drive decisions. Soon after its inception, the SSTF realized that we needed data about admission volumes and patterns to optimize the admitter shift design. One of our division members designed an in-house data collection tool that captures data on more than 90% of our admissions-what time they occur, the source, and who completes the admission. With this data, we can put admitters where and when needed.

Future directions

The SSTF proved so valuable that it is now a formal committee in our division and decides all service-structure changes. Since 2022, our division has added many physicians, APPs, and service lines at several sites, and the SSTF has changed to reflect that. The group now meets monthly and addresses myriad topics.

The SSTF considers all additional service-line requests and co-management agreements. We use our admissions data, survey data, and the SSTF members' opinions to determine if expanding our roles is possible. When

deemed possible, we carefully negotiate co-management terms within the SSTF. When not feasible, this rigorous process allows us to gracefully decline the requests of other divisions with data supporting our decision.

The ability of a hospital medicine group to change quickly and effectively relies on more than invested leadership. Our model demonstrates that engaged and committed team members are vital to implementing change. Additionally, obtaining data and remaining flexible in our solutions is essential. In other words, we learned that change begets change in the best way possible.

Practice Management

Supply Chain Stewardship

Hospitalists driving clinical innovation and sustainability

By Mihir H Patel, MD, MBA, MPH, CLHM, FACP, SFHM

ealthcare supply chain disruptions have emerged as a major challenge nationwide, fundamentally reshaping clinical practice and patient-care delivery within hospitals. As clinicians, we increasingly find ourselves in situations where essential resources—from critical medications to diagnostic supplies-are limited or unavailable. These scenarios demand complex clinical judgments and creative workflow adaptations. Recent data underscores how prevalent this challenge has become: approximately 40% of healthcare practitioners reported regular cancellations or delays in patient care due to shortages in 2023, a marked increase from prior years.1 Additionally, a survey by the American Hospital Association revealed nearly 80% of hospitals experienced substantial medication shortages in 2021, highlighting the urgency for proactive, innovative strategies.²

Complicating this landscape, new tariffs on imported medical products, notably pharmaceuticals and diagnostic materials, have heightened concerns about future shortages. Economic projections suggest these tariffs could increase the cost of essential medical supplies by up to 15%.3 Such significant cost hikes directly impact healthcare budgets and intensify resource scarcity as facilities strive to secure affordable alternatives, thus further pressuring already strained hospital operations.

In recent years, we have navigated numerous critical supply shortages, including blood culture bottles, iodinated contrast media,

intravenous fluids, and nuclear medicine isotopes. Each crisis required distinct and agile responses.

The blood culture bottle shortage of 2024, driven by manufacturing disruptions, necessitated an urgent shift toward diagnostic stewardship. Across hospitals nationwide, we implemented rigorous stewardship protocols and introduced electronic prompts within electronic health record (EHR) systems, significantly reducing unnecessary culture orders. Virginia Commonwealth University Health notably achieved a reduction in blood culture orders exceeding 35%, exemplifying effective stewardship without compromising patient safety.4

Similarly, the iodinated contrast media shortage in 2022, precipitated by the temporary closure of a major production facility in Shanghai, required quick collaborative action. Institutions like UCSF Health revised CT imaging protocols, employing weight-based contrast dosing and selectively omitting contrast in low-risk clinical scenarios, thus conserving up to 83% of dye usage while preserving diagnostic accuracy.⁵

The shortage of radioisotopes used in nuclear medicine further illustrated the vulnerability of the global supply chain. The 2024 disruption in molybdenum-99 production, critical for generating technetium-99m, used widely in cardiac imaging, forced rapid clinical adjustments. Hospital-based clinicians, in partnership with cardiologists and radiologists, swiftly transitioned patients to alternative modalities such as PET scans and stress echocardiography. This rapid adaptability prevented significant diagnostic delays, underscoring the importance of

interdisciplinary flexibility during resource constraints.

Natural disasters have repeatedly exposed supply chain weaknesses, further demanding resilient systemic solutions. Hurricane Helene's severe impact on Baxter's IV fluid plant in 2024 resulted in widespread saline shortages. Hospitals responded with immediate, aggressive conservation measures, shifting toward oral hydration, refining IV medication protocols, and leveraging emergency imports temporarily authorized by the U.S. Food and Drug Administration.⁶

Throughout these crises, clinicians have not only adapted at the bedside but have actively spearheaded institutional innovation. By developing and deploying new workflows embedded with principles of resource stewardship, clinicians have transformed routine clinical practices. These workflows, initially established as crisis responses, now promise long-term value, potentially becoming permanent fixtures in healthcare delivery. Practices such as transitioning appropriate medications from intravenous to oral administration and integrating EHR decision-support tools exemplify this transformation. Through transparent communication, ethical frameworks, and proactive adaptation, hospitalists uphold patient trust and safety during these challenging shortages.

Beyond operational changes, these disruptions have triggered a significant cultural shift within healthcare institutions—from a mindset prioritizing exhaustive diagnostic testing toward one emphasizing clinical appropriateness and resource conservation. This cultural evolution, championed by clinicians, encourages inter-



Dr. Patel

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disciplinary collaboration among nurses, pharmacists, and laboratory personnel. Such shifts not only optimize resource management but significantly enhance patient care by minimizing unnecessary interventions, reducing healthcare-associated risks, and improving overall patient safety.

Furthermore, embedding principles of resource stewardship into medical education and training ensures that future healthcare providers adopt this conservation-oriented mindset early in their careers. Simulation-based training exercises, interdisciplinary case discussions, and integrated clinical decision support tools are helping institutionalize this culture change. Recognition programs that cele-



brate teams successfully implementing resource-efficient care further reinforce positive behavior and motivate sustained engagement among healthcare providers.7

Additionally, adopting a conservation-oriented approach has substantial environmental implications. Excessive use of medical resources, particularly single-use plastics and chemical-based products, contributes notably to environmental pollution and climate change. By embedding resource stewardship and sustainability into daily clinical practice, healthcare providers not only improve operational efficiency but also contribute positively to environmental goals, aligning healthcare delivery with broader sustainability initiatives.

Hospitalists can play a pivotal role in sustainability efforts by initiating practices such as reducing unnecessary diagnostic testing, advocating for eco-friendly clinical supplies, and educating clinical teams about environmentally conscious healthcare practices. Their frontline perspective uniquely positions them to identify and address wasteful practices, lead hospital-wide sustainability committees, and implement recycling programs in clinical areas.8

The use of digital innovation has been pivotal in supporting these systemic changes. Predictive analytics and AI-powered inventory-management systems enable facilities to anticipate shortages proactively, permitting timely, preventive actions. EHR-based decision support tools, such as Best Practice Advisories, effectively guide clinical behaviors towards conservation and clinical appropriateness, providing clinicians with

real-time, actionable guidance. Emerging technologies, including blockchain, promise further long-term solutions by enhancing supply chain transparency and traceability.9 Additionally, advancements in 3D printing offer hospitals the capability to produce certain medical supplies rapidly on-site during shortages. Items such as surgical instruments, personal protective equipment components, and specialized medication-delivery devices can be custom-printed quickly, alleviating immediate supply constraints and enhancing self-sufficiency during crises.10

Innovations in care delivery, notably telemedicine and remote patient monitoring, have also gained prominence. Integrating these technologies has allowed effective patient care management remotely, thereby alleviating pressure on inpatient resources. Automation technologies, such as robotic medication dispensing systems and smart IV pumps, further enhance resource optimization, reduce errors, and allow clinicians more direct patient interaction, enhancing overall care quality.

From our vantage point as frontline clinicians, advocacy for systemic changes remains essential. Our experiences uniquely position us to influence policy discussions regarding tariffs, international supply chain management, and resource stewardship programs. By advocating for diversified sourcing strategies, strategic national stockpiles, and regulatory flexibility during crises, we can actively prevent or mitigate future disruptions.

As we look ahead, our continued engagement in refining clinical

protocols, embedding sustainable practices, and adopting innovative digital solutions remains paramount. The ongoing supply-chain challenges present unique opportunities to reinforce collaborative approaches, integrate proactive planning, and further establish hospitalists as central leaders in driving resilience within healthcare systems.

The valuable lessons learned from recent supply-chain disruptions have equipped us with robust tools and strategies that will permanently enhance our approach to resource management. Many of the workflows and clinical adjustments adopted during these crises will endure, continuing to minimize resource waste and foster efficiency even beyond periods of scarcity. These experiences underscore the critical importance of adaptability, proactive preparedness, and interdisciplinary collaborationessential qualities that define our evolving role in healthcare.

Ultimately, by embracing these lessons and leading the charge toward more sustainable, resilient, and patient-centered care, we ensure the ongoing delivery of high-quality healthcare. Our collective efforts not only address immediate clinical challenges but also significantly contribute to building stronger healthcare systems capable of weathering future uncertainties.

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SIG Spotlight: Research

Building a community where operations, QI, and research mingle

By Richard Quinn

eing the newest anything can be both a blessing and a curse. For SHM's Research Special Interest Group, which just formed in October 2024, the positives of being so new are that the group is unburdened by any legacy issues and that it's free to create its own path however it likes. The negatives, for those who'd choose to see them, are that they have no structure, no clear path forward, and no history to rely on.

As for SIG Chair Angela Keniston, PhD, MSPH, she sees only the upside.

"It feels like a blessing," she said. "I am actually going to be actively recruiting a vice chair and a secretary because right now it's just me. I have a bunch of colleagues on SHM's Research Committee who have stepped up to help me really get this going. But,



Dr. Keniston

you know, they will ideally step back and make space for some others within SHM who would be interested."

For Dr. Keniston, director of data and analytics in the division of hospital medicine at the University of Colorado Department of Medicine, the SIG is just another outreach effort to widen what people think the definition of research is.

"I define research pretty broadly," said Dr. Keniston, who's been involved in research efforts in hospital medicine and other specialties for some 25 years. "In my experience in hospital medicine, research lives in this grey space where operations, quality improvement, and research cross over. I'm hoping we attract people who aren't just working in more traditional research settings, but people who are doing really exciting, innovative quality improvement or medical education work. "

Dr. Keniston, who is also an assistant professor, sat on SHM's Research Committee for years, but sees a SIG as being able to get more people involved, particularly as the committee has only so many slots and requires an approval process. The SIG requires only the effort to sign up.

"SIGs are an amazing opportunity to just invite people in regardless of their level of experience with research," she said. "If they are an MD, an APP, a PhD, a Master of Science, whatever their training background might be, whatever their interest or experience with research might be, to invite them in and give them a home where they can meet other people engaged in research, interested in research.

"A home where they can build collaborations and relationships, and we can work on some things that are maybe a little more innovative, a little quirky compared to what the research committee does."

That's not to say that the nascent SIG won't look to partner with the committee to align efforts. In addition, Dr. Keniston is also focused on the idea of working with other SIGs, as research initiatives often exist at the intersection of other subject matter areas that have long had dedicated SIGs. But the Research SIG's overarching goal is to get more people working on more projects and talking to each other more.

"What do people who have an interest in research want to work on?" Dr. Keniston said. "How can we build from this really diverse community of people to come up with projects and initiatives that will, yes, align with SHM's strategic goals, but will be outside the scope of the Research Committee?

"And then the other thing is, that we really want to build is some visibility for research across SHM and identify people who maybe haven't even really thought of themselves as researchers, but when you look at the work that they do, the non-clinical work, through a different lens, they're like, 'Oh, yeah, I am a researcher. And there is a community for me'."

Efforts have started quickly. The SIG already held its first event, with the SIG taking over the National Hospital Medicine Writing Challenge from the Research Committee. There is a virtual launch event in April and Dr. Keniston is hopeful that it will build more momentum before SHM Converge in Las Vegas.

Dr. Keniston may be a career researcher, but she's also putting on her marketing hat for the SIG. She's been actively promoting the new group via SHM's HMX, as well as posting about it on social media sites including BlueSky, Threads, and LinkedIn. She's also using personal and professional networks to get outside the traditional research forums. The message is always the same.

"I just really would love for people to consider joining and being a part of this diverse community," she said. "We're trying to build some greater inclusivity, greater collaboration, a space of innovation for people. You don't have to be a traditional researcher. You can have just a little bit of interest. You could have done one project that was kind of sort of research in your whole career, and this is a space for you."

Richard Quinn is a freelance writer in New Jersey.

Chapter Spotlight: NC Triangle Chapter

Focused on providing a venue for members to present research and highlight professional achievement



By Richard Quinn

ook, anything good enough for the iconic character of Crash Davis in the movie Bull Durham is good enough for hospital medicine. At least, so says the attendance of the Durham Bulls social event the SHM North Carolina Triangle Chapter organizes every year. The group sets up a dinner at a restaurant whose grounds overlook the minor-league baseball stadium of the Durham Bulls.

"There's no formal academic agenda—it's

simply an opportunity to build relationships and strengthen our professional community. People really enjoy the baseball game and the camaraderie," says chapter President Nicholas Piazza, MD, FACP, FHM, an associate professor of hospital medicine at UNC School of Medicine in Chapel Hill, N.C.



Dr Piazza

That's because the group's members really enjoy the chapter. Don't take Dr. Piazza's word for it.

Nine chapter members have been SHM members for more than 20 years. One dates back to 1998, just a few years after the term hospitalist

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was coined. Chapter members who renewed last year had been around for eight-plus years.

Several took part in the most recent SHM Hill Day, where policy wonks and hospitalists converged to lobby members of Congress about what matters most to hospitalists and their patients. In addition, the chapter's Converge meet-and-greet facilitated professional connections on a national level.

For the Triangle chapter, the year's biggest annual event is almost certainly its Research, Innovations and Clinical Vignettes (RIV) Poster Competition, which Dr. Piazza values both as a marketing tool and as "a vital platform for mentorship, networking, and scholarly achievement."

"It's stiff competition every year, and we really go through an extensive peer review process for every abstract that comes through," he said. "We have multiple reviewers who read the abstract and score them based on originality and relevance to hospital medicine, and the best-scoring abstracts are invited to present. It's been an exciting thing to be a part of over the past few years. Our RIV competition is consistently a high-value event for our members because it serves as an opportunity to get research out there and ... help with their academic promotion."

Dr. Piazza says the competition has grown strongly over the past five years. "When I first started as a member, there were a handful of posters. Our 2024 event featured 53 highly polished abstracts. It's great because it seems like the popularity is growing. Especially with the residents and the medical students, in addition to the hospitalists, who really enjoy participating. People look forward to it every year."

Dr. Piazza and the entire triangle leadership team have tried to steer chapter activities and resources to the needs of their local hospitalist community.

"We're in a very highly academic area, as you know: we have Duke [University] and UNC here," Dr. Piazza said. "A lot of other chapters out there further removed from academic centers serve a vital role of providing regular continuing medical education for members. In our chapter, members get a lot of that education through their dayto-day work with grand rounds and other didactics. We've tried to focus more of our efforts on providing a venue for people to present their research and highlighting professional achievement."

Perhaps the chapter's second-most popular event was last year's inaugural awards night. "We built it around the chapter excellence and exemplary awards they do at Converge every year," Dr. Piazza said. "We give out awards for our local members for academic excellence, and excellence in humanitarian work if people are out doing stuff that is above and beyond their normal call of duty as hospitalists."

"I think a lot of times hospitalists, our administrative staff, and our students and residents, do a lot of good work that doesn't always get recognized. We saw our local SHM chapter as a way to be able to recognize some of that work and give people the opportunity to nominate their peers and use those awards for career growth and CV building. People seem to have responded really well to it."

To Dr. Piazza, it's another example of listening to members and using chapter resources to meet the needs of the community. And it's not just him. He also credits his leadership team, including president-elect Dr. Amy Tierney, and other volunteers like Drs. Aaron Fried, Patrick O'Shea, Jewook Ha, Ruchi Doshi, and Jay Kachoria.

"Every chapter is different," he

said. "I think leadership committees in the chapters just need to be aware of what their chapter body is made up of. The vast majority of our members are connected somehow to a teaching hospital ... we try to do stuff that attracts everybody, but it seems like the appetite has been more around the poster competition, the awards night, and also just like social outings to have networking and meet the other hospitalists in the area."

Richard Quinn is a freelance writer in New Jersey.

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