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IN THE NEXT ISSUE...
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Society of Hospital Medicine

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Veklury®
remdesivir 100 MG FOR INJECTION

For patients hospitalized with **COVID-19**,[1]

HELP REDUCE DISEASE PROGRESSION AND SHORTEN RECOVERY TIME[1,2]

INDICATION

VEKLURY is indicated for the treatment of COVID-19 in adults and pediatric patients (≥28 days old and weighing ≥3 kg) with positive results of SARS-CoV-2 viral testing, who are:

- Hospitalized, or
- Not hospitalized, have mild-to-moderate COVID-19, and are at high risk for progression to severe COVID-19, including hospitalization or death.

IMPORTANT SAFETY INFORMATION

Contraindication

- VEKLURY is contraindicated in patients with a history of clinically significant hypersensitivity reactions to VEKLURY or any of its components.

Warnings and precautions

- **Hypersensitivity, including infusion-related and anaphylactic reactions:** Hypersensitivity, including infusion-related and anaphylactic reactions, has been observed during and following administration of VEKLURY; most reactions occurred within 1 hour. Monitor patients during infusion and observe for at least 1 hour after infusion is complete for signs and symptoms of hypersensitivity as clinically appropriate. Symptoms may include hypotension, hypertension, tachycardia, bradycardia, hypoxia, fever, dyspnea, wheezing, angioedema, rash, nausea, diaphoresis, and shivering. Slower infusion rates (maximum infusion time of up to 120 minutes) can potentially prevent these reactions. If a severe infusion-related hypersensitivity reaction occurs, immediately discontinue VEKLURY and initiate appropriate treatment (see Contraindications).
- **Increased risk of transaminase elevations:** Transaminase elevations have been observed in healthy volunteers and in patients with COVID-19 who received VEKLURY; these elevations have also been reported as a clinical feature of COVID-19. Perform hepatic laboratory testing in all patients (see Dosage and administration). Consider discontinuing VEKLURY if ALT levels increase to >10x ULN. Discontinue VEKLURY if ALT elevation is accompanied by signs or symptoms of liver inflammation.
- **Risk of reduced antiviral activity when coadministered with chloroquine or hydroxychloroquine:** Coadministration of VEKLURY with chloroquine phosphate or hydroxychloroquine sulfate is not recommended based on data from cell culture experiments, demonstrating potential antagonism, which may lead to a decrease in the antiviral activity of VEKLURY.

Adverse reactions

- The most common adverse reaction (≥5% all grades) was nausea.
- The most common lab abnormalities (≥5% all grades) were increases in ALT and AST.

Drug interactions

- Drug interaction trials of VEKLURY and other concomitant medications have not been conducted in humans.

Dosage and administration

- **Dosage:**
  - For adults and pediatric patients weighing ≥40 kg: 200 mg on Day 1, followed by once-daily maintenance doses of 100 mg from Day 2, administered only via intravenous infusion.
  - For pediatric patients ≥28 days old and weighing ≥3 kg to <40 kg: 5 mg/kg on Day 1, followed by once-daily maintenance doses of 2.5 mg/kg from Day 2, administered only via intravenous infusion.

ECMO=extracorporeal membrane oxygenation.

In the ACTT-1 overall study population, patients experienced

Median 10 days with VEKLURY vs 15 days with placebo; recovery rate ratio: 1.29 (95% CI, 1.12 to 1.49), p<0.001[1,2]

- Recovery was defined as patients who were no longer hospitalized or hospitalized but no longer required ongoing COVID-19 medical care

Significantly greater likelihood of improvement in clinical status, a key secondary endpoint[1]

- Patients were 54% more likely to have improved clinical status on Day 15 vs placebo; odds ratio for improvement: 1.54 (95% CI, 1.25 to 1.91)

Helped reduce progression to more severe disease, an additional secondary endpoint[1-3]

- 7% absolute reduction in incidence of new noninvasive ventilation or high-flow oxygen with VEKLURY (17%, n=307) vs placebo (24%, n=266) in patients who did not receive either at baseline (95% CI, -14 to -1)
- 10% absolute reduction in incidence of new mechanical ventilation or ECMO with VEKLURY (13%, n=402) vs placebo (23%, n=364) in patients who did not receive either at baseline (95% CI, -15 to -4)

Adverse reaction frequency was comparable between VEKLURY and placebo[1]

- All adverse reactions (ARs), Grades ≥3: 41 (8%) with VEKLURY vs 46 (9%) with placebo; serious ARs: 2 (0.4%)* vs 3 (0.6%); ARs leading to treatment discontinuation: 11 (2%)† vs 15 (3%)

ACTT-1 was a randomized, double-blind, placebo-controlled, phase 3 clinical trial in hospitalized patients with confirmed SARS-CoV-2 infection and mild, moderate, or severe COVID-19. Patients received VEKLURY (n=541) or placebo (n=521) for up to 10 days. The primary endpoint was time to recovery within 29 days after randomization. Secondary endpoints included clinical status of patients on Day 15 as assessed on an 8-point ordinal scale and incidence of new high-flow oxygen requirement or new mechanical ventilation or ECMO.[1]

*Seizure (n=1), infusion-related reaction (n=1).

†Seizure (n=1), infusion-related reaction (n=1), transaminases increased (n=3), ALT increased and AST increased (n=1), GFR decreased (n=2), acute kidney injury (n=3).

IMPORTANT SAFETY INFORMATION (cont'd)

Dosage and administration (cont'd)

- **Treatment duration:**
  - — For patients who are hospitalized and require invasive mechanical ventilation and/or ECMO, the recommended total treatment duration is 10 days. VEKLURY should be initiated as soon as possible after diagnosis of symptomatic COVID-19.
  - — For patients who are hospitalized and do not require invasive mechanical ventilation and/or ECMO, the recommended treatment duration is 5 days. If a patient does not demonstrate clinical improvement, treatment may be extended up to 5 additional days, for a total treatment duration of up to 10 days.
  - — For patients who are not hospitalized, diagnosed with mild-to-moderate COVID-19, and are at high risk for progression to severe COVID-19, including hospitalization or death, the recommended total treatment duration is 3 days. VEKLURY should be initiated as soon as possible after diagnosis of symptomatic COVID-19 and within 7 days of symptom onset.
- **Testing prior to and during treatment:** Perform eGFR, hepatic laboratory, and prothrombin time testing prior to initiating VEKLURY and during use as clinically appropriate.
- **Renal impairment:** VEKLURY is not recommended in individuals with eGFR <30 mL/min.
- **Dose preparation and administration:**
  - — There are two different formulations of VEKLURY: VEKLURY for injection (supplied as 100 mg lyophilized powder in vial), the only approved dosage form of VEKLURY for pediatric patients weighing 3 kg to <40 kg; and VEKLURY injection (supplied as 100 mg/20 mL [5 mg/mL] solution in vial). See full Prescribing Information.
  - — Administration should take place under conditions where management of severe hypersensitivity reactions, such as anaphylaxis, is possible.

Pregnancy and lactation

- **Pregnancy:** A pregnancy registry has been established. There are insufficient human data on the use of VEKLURY during pregnancy. COVID-19 is associated with adverse maternal and fetal outcomes, including preeclampsia, eclampsia, preterm birth, premature rupture of membranes, venous thromboembolic disease, and fetal death.
- **Lactation:** It is not known whether VEKLURY can pass into breast milk. Breastfeeding individuals with COVID-19 should follow practices according to clinical guidelines to avoid exposing the infant to COVID-19.

Please see Brief Summary of full Prescribing Information on the following page.

References: 1. Veklury. Prescribing Information. Gilead Sciences, Inc.; 2022. **2.** Beigel JH, Tomashek KM, Dodd LE, et al; ACTT-1 Study Group. Remdesivir for the treatment of COVID-19—final report. *N Engl J Med*. 2020;383(19):1813-1826. doi:10.1056/NEJMoa2007764 **3.** Beigel JH, Tomashek KM, Dodd LE, et al; ACTT-1 Study Group. Remdesivir for the treatment of COVID-19—final report. Supplementary appendix. *N Engl J Med*. 2020;383(19):1813-1826. Accessed May 24, 2022. https://www.nejm.org/doi/suppl/10.1056/NEJMoa2007764/suppl_file/nejmoa2007764_appendix.pdf

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VEKLURY® (remdesivir)
Brief summary of full Prescribing Information. Please see full Prescribing Information. Rx Only.

INDICATIONS AND USAGE

VEKLURY is indicated for the treatment of COVID-19 in adults and pediatric patients (≥28 days old and weighing ≥3 kg), with positive results of SARS-CoV-2 viral testing, who are:

- Hospitalized, or
- Not hospitalized, with mild-to-moderate COVID-19, and at high risk for progression to severe COVID-19, including hospitalization or death.

DOSAGE AND ADMINISTRATION *[Also see **Warnings and Precautions, Adverse Reactions, and Use in Specific Populations**]*:

Testing Before Initiation and During Treatment: Perform eGFR, hepatic laboratory, and prothrombin time testing prior to initiating VEKLURY and during use as clinically appropriate.

Recommended Dosage in Adults and Pediatric Patients ≥28 Days Old and Weighing ≥3 kg:

- For adults and pediatric patients weighing ≥40 kg: 200 mg on Day 1, followed by once-daily maintenance doses of 100 mg from Day 2, administered only via intravenous infusion.
- For pediatric patients ≥28 days old and weighing ≥3 kg: 5 mg/kg on Day 1, followed by once-daily maintenance doses of 2.5 mg/kg from Day 2, administered only via intravenous infusion.

Treatment Duration:

- For patients who are hospitalized and require invasive mechanical ventilation and/or ECMO, the recommended total treatment duration is 10 days. VEKLURY should be initiated as soon as possible after diagnosis of symptomatic COVID-19.
- For patients who are hospitalized and do not require invasive mechanical ventilation and/or ECMO, the recommended treatment duration is 5 days. If a patient does not demonstrate clinical improvement, treatment may be extended up to 5 additional days, for a total treatment duration of up to 10 days.
- For patients who are not hospitalized, diagnosed with mild-to-moderate COVID-19, and at high risk for progression to severe COVID-19, including hospitalization or death, the recommended total treatment duration is 3 days. VEKLURY should be initiated as soon as possible after diagnosis of symptomatic COVID-19 and within 7 days of symptom onset.

Renal Impairment: VEKLURY is not recommended in individuals with eGFR <30 mL/min.

Dose Preparation and Administration *[See full **Prescribing Information** for complete instructions on dose preparation, administration, and storage]*:

VEKLURY must be prepared and administered under supervision of a healthcare provider and must be administered via intravenous infusion only, over 30 to 120 minutes. Do not administer the prepared diluted solution simultaneously with any other medication.

- VEKLURY for injection (supplied as 100 mg lyophilized powder in vial) must be reconstituted with Sterile Water for Injection prior to diluting in a 100 mL or 250 mL 0.9% sodium chloride infusion bag.
- Care should be taken during admixture to prevent inadvertent microbial contamination; there is no preservative or bacteriostatic agent present in these products.

Dosage Preparation and Administration in Pediatric Patients ≥28 Days of Age and Weighing 3 kg to <40 kg:

The only approved dosage form of VEKLURY for pediatric patients ≥28 days of age and weighing 3 kg to <40 kg is VEKLURY for injection (supplied as 100 mg lyophilized powder in vial). Carefully follow the product-specific preparation instructions.

CONTRAINDICATIONS *[Also see **Warnings and Precautions**]*:

VEKLURY is contraindicated in patients with a history of clinically significant hypersensitivity reactions to VEKLURY or any of its components.

WARNINGS AND PRECAUTIONS *[Also see **Contraindications, Dosage and Administration, Adverse Reactions,** and **Drug Interactions**]*:

Hypersensitivity, Including Infusion-related and Anaphylactic Reactions: Hypersensitivity, including infusion-related and anaphylactic reactions, has been observed during and following administration of VEKLURY; most reactions occurred within 1 hour. Monitor patients during infusion and observe for at least 1 hour after infusion is complete for signs and symptoms of hypersensitivity as clinically appropriate. Symptoms may include hypotension, hypertension, tachycardia, bradycardia, hypoxia, fever, dyspnea, wheezing, angioedema, rash, nausea, diaphoresis, and shivering. Slower infusion rates (maximum infusion time ≤120 minutes) can potentially prevent these signs and symptoms. If a severe infusion-related hypersensitivity reaction occurs, immediately discontinue VEKLURY and initiate appropriate treatment.

Increased Risk of Transaminase Elevations: Transaminase elevations have been observed in healthy volunteers and in patients with COVID-19 who received VEKLURY; the transaminase elevations were mild to moderate (Grades 1-2) in severity and resolved upon discontinuation. Because transaminase elevations have been reported as a clinical feature of COVID-19, and the incidence was similar in patients receiving placebo versus VEKLURY in clinical trials, discerning the contribution of VEKLURY to transaminase elevations in patients with COVID-19 can be challenging. Perform hepatic laboratory testing in all patients.

- Consider discontinuing VEKLURY if ALT levels increase to >10x ULN.
- Discontinue VEKLURY if ALT elevation is accompanied by signs or symptoms of liver inflammation.

Risk of Reduced Antiviral Activity When Coadministered With Chloroquine or Hydroxychloroquine: Coadministration of VEKLURY with chloroquine phosphate or hydroxychloroquine sulfate is not recommended based on data from cell culture experiments, demonstrating potential antagonism which may lead to a decrease in the antiviral activity of VEKLURY.

ADVERSE REACTIONS *[Also see **Warnings and Precautions**]*:

Clinical Trials Experience: The safety of VEKLURY is based on data from three Phase 3 studies in 1,313 hospitalized adult subjects with COVID-19, four Phase 1 studies in 131 healthy adults, and from patients with COVID-19 who received VEKLURY under the Emergency Use Authorization or in a compassionate use program. The NIAID ACTT-1 study was conducted in hospitalized subjects with mild, moderate, and severe COVID-19 treated with VEKLURY (n=532) for up to 10 days. Study GS-US-540-5773 (Study 5773) included subjects hospitalized with severe COVID-19 and treated with VEKLURY for 5 (n=200) or 10 days (n=197). Study GS-US-540-5774 (Study 5774) was conducted in hospitalized subjects with moderate COVID-19 and treated with VEKLURY for 5 (n=191) or 10 days (n=193).

Adverse Reactions: The most common adverse reaction (≥5% all grades) was nausea.

Less Common Adverse Reactions: Clinically significant adverse reactions reported in <2% of subjects exposed to VEKLURY in clinical trials include hypersensitivity reactions, generalized seizures, and rash.

Laboratory Abnormalities: In a Phase 1 study in healthy adults, elevations in ALT were observed in 9 of 20 subjects receiving 10 days of VEKLURY (Grade 1, n=8; Grade 2, n=1); the elevations in ALT resolved upon discontinuation. No subjects (0 of 9) who received 5 days of VEKLURY had graded increases in ALT.

Laboratory abnormalities (Grades 3 or 4) occurring in ≥3% of subjects receiving VEKLURY in Trials NIAID ACTT-1, Study 5773, and/or Study 5774, respectively, were ALT increased (3%, ≤8%, ≤3%), AST increased (6%, ≤7%, n/a), creatinine clearance decreased, Cockcroft-Gault formula (18%, ≤19%, ≤5%), creatinine increased (15%, ≤15%, n/a), eGFR decreased (18%, n/a, n/a), glucose increased (12%, ≤11%, ≤4%), hemoglobin decreased (15%, ≤8%, ≤3%), lymphocytes decreased (11%, n/a, n/a), and prothrombin time increased (9%, n/a, n/a).

DRUG INTERACTIONS *[Also see **Warnings and Precautions**]*:

Due to potential antagonism based on data from cell culture experiments, concomitant use of VEKLURY with chloroquine phosphate or hydroxychloroquine sulfate is not recommended.

Drug-drug interaction trials of VEKLURY and other concomitant medications have not been conducted in humans. Remdesivir and its metabolites are in vitro substrates and/or inhibitors of certain drug metabolizing enzymes and transporters. The clinical relevance of these in vitro assessments has not been established.

USE IN SPECIFIC POPULATIONS *[Also see **Dosage and Administration** and **Warnings and Precautions**]*:

Pregnancy

Risk Summary: There are insufficient human data on the use of VEKLURY during pregnancy to inform a drug-associated risk of major birth defects, miscarriage, or adverse maternal or fetal outcomes. COVID-19 is associated with adverse maternal and fetal outcomes, including preeclampsia, eclampsia, preterm birth, premature rupture of membranes, venous thromboembolic disease, and fetal death.

Lactation

Risk Summary: There are no available data on the presence of remdesivir in human milk, the effects on the breastfed infant, or the effects on milk production. In animal studies, remdesivir and metabolites have been detected in the nursing pups of mothers given remdesivir, likely due to the presence of remdesivir in milk. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for VEKLURY and any potential adverse effects on the breastfed child from VEKLURY or from the underlying maternal condition. Breastfeeding individuals with COVID-19 should follow practices according to clinical guidelines to avoid exposing the infant to COVID-19.

Pediatric Use

The safety and effectiveness of VEKLURY for the treatment of COVID-19 have been established in pediatric patients ≥28 days old and weighing ≥3 kg. Use in this age group is supported by the following:

- Trials in adults
- An open-label trial (Study GS-US-540-5823) in 53 hospitalized pediatric subjects

Geriatric Use

Dosage adjustment is not required in patients over the age of 65 years. Appropriate caution should be exercised in the administration of VEKLURY and monitoring of elderly patients, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of potential concomitant disease or other drug therapy.

Renal Impairment

All patients must have an eGFR determined before starting VEKLURY and while receiving VEKLURY as clinically appropriate. VEKLURY is not recommended in patients with eGFR less than 30 mL/min.

Hepatic Impairment

Perform hepatic laboratory testing in all patients before starting VEKLURY and while receiving VEKLURY as clinically appropriate.

OVERDOSAGE

There is no human experience of acute overdosage with VEKLURY. Treatment of overdose with VEKLURY should consist of general supportive measures including monitoring of vital signs and observation of the clinical status of the patient. There is no specific antidote for overdose with VEKLURY.

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Harnessing Our Energies to Work Together

By Kris Rehm, MD, SFHM

Dr. Rehm

Dr. Rehm is the associate chief medical officer of children's services in the department of pediatrics at Vanderbilt University Medical Center in Nashville, Tenn.

This month we celebrate women in hospital medicine (page 11) and the work they do to promote, mentor, encourage, and empathize with other women. We can all relate to their stories and journeys.

I still remember my first SHM annual conference in National Harbor, Md., sitting at a breakfast table and debating in my mind if I should fly home a little earlier than planned to attend "Muffins for Moms" at my then-four-year-old twins' school. It was causing me much internal stress to consider potentially missing some amazing professional development or missing an important event for my children. To me, that memory is a powerful representation of the daily choices we all make to balance our professional and family obligations, and how important striking balance is for all of us.

I bring that up today, because now, many years later, with older, more self-sufficient children, my balancing act has changed. It's a little bit easier, but I don't want to forget that others are facing similar choices—and it's helpful when I can lend an ear to the choices my team faces and help them with decisions that impact personal and professional growth.

I recently shared my thoughts on successful leadership and the attributes I find most important with the pediatric hospital medicine community at PHM 2023. I have recognized that my college cross-country coach taught me much about leadership that I still use today as a hospital leader: the importance of authenticity, engagement, and a commitment to bring together your community and your network, all while remaining positive and flexible. These have been keys to my own personal leadership journey. Growing as a leader has meant making significant, concerted efforts to focus on skills that will enhance my leadership abilities. I encourage you to do the same. One great way would be participating in the SHM Leadership Academy next month in Scottsdale, Ariz.

Over the past few years, the medical profession as a whole has experienced a paradigm shift toward gender inclusivity. In 2023, women have earned their place as essential leaders in the field of hospital medicine. Not only have they made significant strides in representation, but they have also thrived in leadership roles.

To me, as a woman in leadership in hospital medicine, this means helping my team accomplish more than we could alone. It requires harnessing our energies to work together to provide excellent clinical care, improve systems, educate our future generation of physicians and care providers, and create new and powerful knowledge through research to advance our abilities to care. Women have broken through barriers and risen to prominent positions, bringing fresh perspectives and invaluable expertise to the forefront across many domains in medicine. While doing this, we still find ways to lift each other up as we seek out that sweet spot in our own balancing acts. This is most certainly true in our hospital medicine community.

I'm proud to serve SHM as the current president and to celebrate the diversity of our board, leaders, and membership, now and in the years ahead, as we support you on your professional journey.

I look forward to the opportunities to visit many chapters and local SHM-supported events this month to talk with members like you about leadership in your home environments, with the goal to continue advancing equity and diversity, in gender and beyond. ■

In the Literature

Maine Medical Center, Medical Research Reviews

By Brittany A. Mohoney, MD, Raymond M. Klein, MD, Katelyn Chadwick, DO, MA, Lesley Gordon, MD, MS, Daniel A. Meyer, MD, and Adam W. Long, MD, MS

Maine Medical Center, Portland, Maine

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By Brittany A. Mohoney, MD

1 Sustained reduction in lab ordering after implementing mindful ordering initiatives

CLINICAL QUESTION: Do perceptions of mindful laboratory test ordering and number of labs ordered change after resident-focused training and optimization of electronic medical record (EMR) ordering options?

Dr. Mohoney

BACKGROUND: Multiple recommendations and guidelines have discouraged over-ordering laboratory tests to avoid iatrogenic anemia, improve cost savings, and reduce patient harm. In addition, a reduction in lab ordering has not been associated with missed diagnoses or increased mortality. Despite this information, survey results showed residents at the study site's institution and elsewhere felt there was insufficient focus on mindful lab ordering. Moreover, the majority of faculty felt residents over-ordered labs.

STUDY DESIGN: Multiple quality-improvement interventions evaluated by surveys and general linear modeling for total lab ordering analysis

SETTING: Inpatient general medicine teaching service at a 250-bed midwestern hospital from 2016 to 2019

SYNOPSIS: This study included 86 to 92 residents and 17 to 20 faculty per year, rotating through a general-medicine inpatient teaching service between 2016 and 2019. Interventions were implemented in five phases, which included resident education, promotion of faculty-resident communication, optimization of EMR by expanding lab ordering frequency options, adjusting the medicine admission order set, and reducing the frequency of lab collection default settings.

Survey data showed an increase in the percentage of residents who perceived themselves as ordering labs mindfully from 40% at week 31 to 91% at week 127 (P <.05). Total lab orders per thousand patient days were increasing pre-intervention (beta=10.57, 95% CI: 2.97-18.18, P=.01) and the trend was suppressed during intervention (beta=-15.68, 95% CI: -23.67 to –7.68, P <.001). Additionally, there was no significant change from intervention to postintervention (beta=.38, 95% CI: -2.83 to 3.58, P=.82), suggesting sustainability of ordering habits.

Limitations include the cumulative nature of the interventions; therefore the effectiveness of each intervention could not be assessed.

BOTTOM LINE: Residents had an increased perception of mindful lab ordering and there was a reduction in total labs ordered after quality-improvement interventions targeting resident education and optimization of EMR lab ordering functions.

CITATION: Rawal R, et al. Empowering medicine residents to order labs mindfully to improve patient-centered care. *J Hosp Med*. 2023;18:398-404.

2 ODS in hospitalized patients with hyponatremia

CLINICAL QUESTION: Of the patients who are admitted with hyponatremia, how many develop osmotic demyelination syndrome (ODS)?

BACKGROUND: ODS is a rare but serious complication associated with hyponatremia. Previous studies demonstrated rates of ODS that ranged from 0.28 to 0.5%, with rapid sodium correction occurring in the majority but not all patients with ODS. Guidelines recommend slowly correcting serum sodium by no more than 8 mmol/L in 24 hours. Because there can be drawbacks associated with this approach, this study sought to further characterize the proportion of ODS in patients hospitalized with hyponatremia.

STUDY DESIGN: Multicenter cohort study

SETTING: Patients hospitalized with hyponatremia in five Toronto academic hospitals between April 1, 2010 and December 31, 2020

SYNOPSIS: The study included 22,858 hospitalizations of adult patients with hyponatremia admitted to general internal medicine or intensive care. Hyponatremia was defined as a serum sodium <130 mmol/L. The mean initial sodium was 125 mmol/L (standard deviation, 4.6). Rapid correction of serum sodium was defined as an increase of greater than 8 mmol/L in any 24-hour period, which occurred in 3,632 admissions (17.7%). Patients with possible ODS were identified using the results of neuroimaging and chart review. Twelve patients developed definite or probable ODS (0.05%), and of those, seven developed ODS in the absence of rapid sodium correction (58%). The rate of ODS was likely lower than in previous studies because patients with higher initial sodium levels were included.

A limitation of this study is the rarity of ODS, which makes it difficult to obtain adequate power to comment on possible affecting factors.

BOTTOM LINE: Rapid serum sodium correction was common and ODS was extremely rare. Studies with a higher number of patients with ODS are needed to better understand causal factors.

CITATION: MacMillan TE, et al. Osmotic demyelination syndrome in patients hospitalized with hyponatremia. *NEJM Evidence*. 2023;2(4). Doi:10.1056/evidoa2200215

Dr. Mohoney is an internal medicine resident, PGY-3, at Maine Medical Center, Tufts University School of Medicine in Portland, Maine.

By Raymond M. Klein, MD

3 Early restrictive fluid strategy didn't lower mortality for sepsis-induced hypotension

CLINICAL QUESTION: Does a restrictive fluid strategy within the first 24 hours improve all-cause mortality among patients with sepsis-induced hypotension?

Dr. Klein

BACKGROUND: There are limited data to guide the specific use of intravenous (IV) fluids or vasopressors in the early resuscitation of patients with sepsis-induced hypotension. Previous observational data suggested that a restrictive fluid strategy that prioritized vaso-

pressors was potentially superior to a liberal fluid strategy. However, a recent, randomized, clinical trial in patients already admitted to the intensive care unit (ICU) showed no difference in 90-day mortality when comparing a restrictive fluid approach to unguided resuscitation.

STUDY DESIGN: Multicenter, randomized, unblinded, superiority trial

SETTING: 60 medical centers in the U.S.

SYNOPSIS: A total of 1,563 adult patients with suspected or confirmed sepsis-induced hypotension after administration of 1 to 3 L of IV fluid were randomized in a 1:1 ratio to either a restrictive or liberal fluid strategy protocol for a 24-hour period. The restrictive fluid protocol prioritized vasopressors. The liberal fluid protocol recommended an additional 2 L of IV fluid, followed by further boluses based on clinical triggers. Rescue fluids or vasopressors were permitted in both groups for specific parameters. Key exclusion criteria were receipt of more than 3 L of IV fluid by emergency medicine services and the presence of fluid overload.

There was no statistically significant difference in all-cause mortality before discharge by day 90 between the restrictive and liberal fluid groups (14% versus 14.9%, respectively; *P*=0.61). Limitations include lack of blinding, generalizability to patients with extremes of volume overload or depletion, and generalizability to patients with delayed recognition of sepsis-induced hypotension or who are in the later phases of care. These results were similar to a previous study in patients already admitted to an ICU.

BOTTOM LINE: For patients with sepsis-induced hypotension refractory to initial treatment with 1 to 3 L of IV fluid, a restrictive fluid strategy implemented within the first 24 hours did not result in significantly higher or lower mortality before discharge by day 90.

CITATION: National Heart, Lung, and Blood Institute Prevention and Early Treatment of Acute Lung Injury Clinical Trials Network, et al. Early restrictive or liberal fluid management for sepsis-induced hypotension. *N Engl J Med*. 2023;388(6):499-510.

4 Prioritizing discharging patients while rounding didn't result in earlier discharge times or reduced LOS

CLINICAL QUESTION: Does a physician rounding style prioritizing discharging patients lead to earlier discharges or reduced length of stay (LOS)?

BACKGROUND: Delayed discharges can adversely affect patient flow throughout the hospital, leading to delays of care, increased LOS, higher cost, and potentially increased mortality. Prioritizing discharges by a specific time has shown mixed results in prior studies. There have been no previous randomized studies to assess the efficacy of a rounding style prioritizing discharges.

STUDY DESIGN: Prospective, multicenter, randomized, controlled trial

SETTING: Three large academic hospitals in the U.S.

SYNOPSIS: A total of 61 physicians were randomized to one of two rounding styles over a period of approximately six months: (1) prioritizing discharging patients first as care allowed or (2) usual rounding practice. Physicians could break protocol if needed for patient care purposes. Physicians completed daily surveys, which included questions regarding rounding styles. There was no significant difference in discharge time (15:22 ±2h:50min versus 15:21 ±2h:50min, *P*=0.45) or LOS (75h versus 78h, *P*=0.42) between physicians who prioritized discharges versus usual rounding, respectively. In secondary analyses using a self-reported rounding style rather than group randomization, there was also no significant difference in LOS (*P*=0.30). The results suggest prioritizing discharges may not improve hospital throughput. Limitations include contamination of study arms (some clinicians do prioritize discharge patients as their usual practice style) and generalizability to other health care systems.

BOTTOM LINE: A rounding style that prioritized discharging patients first did not result in significantly earlier discharges or reduced LOS.

CITATION: Burden M, et al. Discharge in the a.m.: A randomized controlled trial of physician rounding styles to improve hospital throughput and length of stay. *J Hosp Med*. 2023;18(4):302-15.

Dr. Klein is a hospital medicine attending physician at Maine Medicine Center, Portland, Maine, and an assistant professor at Tufts University School of Medicine, Boston.

By Katelyn Chadwick, DO, MA

5 Real-world application of oral therapy for infective endocarditis

CLINICAL QUESTION: Does oral transitional antibiotic therapy have similar outcomes to intravenous (IV)-only antibiotic treatment for infective endocarditis (IE)?

Dr. Chadwick

BACKGROUND: There has been a longstanding belief, not supported by strong evidence, that deep infections such as IE require prolonged IV antibiotics, although it is known that long-term IV therapy is associated with adverse events. Despite previous evidence suggesting oral transitional therapy for IE to be at least as effective as IV-only treatment, this practice has yet to be adopted into the standard of care, possibly due to an absence of real-world outcomes outside of carefully controlled randomized clinical trials.

STUDY DESIGN: Multi-center, retrospective, cohort study

SETTING: Three acute care public hospitals in the Los Angeles County Department of Health Services, between December 2018 and June 2022

SYNOPSIS: Chart review identified 257 adults with definite or possible IE who were treated with IV-only (n=211) versus IV then oral transitional therapy (n=46). Oral transitional therapy was initiated when patients met specific criteria. The primary efficacy endpoint was clinical success, defined as being alive, without recurrent bacteremia, and without treatment-emergent infectious complications within 90 days. Clinical success rates were similar in both the IV-only arm (84.4%) and the oral-therapy arm (87%) at 90 days. A similar rate of patients in the IV-only versus oral cohorts failed to complete their planned duration of therapy (7.1% versus 6.5%, respectively) and there was no significant difference in the median length of hospitalization. There were significantly higher rates of adverse events in the IV-only arm (27.5%) compared to the oral arm (8.7%). Limitations include the study's retrospective nature and the possibility of missing follow-ups outside of the Los Angeles public health hospital network.

BOTTOM LINE: In patients with IE who met specific clinical criteria of stability, oral antibiotic transitional therapy has similar success rates to prolonged IV therapy but with fewer adverse events.

CITATION: Freling S, et al. Real-world application of oral therapy for infective endocarditis: A multicenter retrospective, cohort study. *Clin Infect Dis*. 2023;ciad119. doi:10.1093/cid/ciad119.

6 Acetazolamide in acute decompensated heart failure with volume overload

CLINICAL QUESTION: Does the addition of acetazolamide to standardized loop diuretic therapy achieve more effective decongestion compared to loop diuretics alone in acute decompensated heart failure?

BACKGROUND: Decompensated heart failure is a leading cause of hospitalization in the U.S. Intravenous (IV) loop diuretics remain the cornerstone of treatment for acute heart failure. Although combination diuretic therapy has been suggested to be more effective than loop diuretics alone, there has previously been a lack of decisive evidence to support this.

STUDY DESIGN: Multicenter, randomized, parallel-group, double-blinded, placebo-controlled study

SETTING: 27 sites in Belgium

SYNOPSIS: This study included 519 patients admitted for acute decompensated heart failure who were randomly assigned to receive either acetazolamide 500 mg IV daily (259 patients) or placebo (260 patients) in addition to standardized IV loop diuretics. The primary outcome was complete decongestion at 72 hours, defined as the absence of any clinical sign of fluid overload using a congestion scoring system. Successful decongestion rates were significantly higher in the treatment group (42%) versus the placebo group (31%). Of relevance to hospital medicine, patients treated with acetazolamide had shorter lengths of stay (8.8 days, versus 9.9 days for the placebo arm). There was no statistically significant difference in rates of death or rehospitalization for heart failure within three months. The incidence of worsening kidney function, hypokalemia, hypotension, and adverse events was similar in both groups. Limitations included that 99% of patients identified as white and that patients with newly diagnosed heart failure, severe chronic kidney disease, or concomitant use of SGLT2-inhibitors and other diuretics (except mineralocorticoid receptor antagonists) were excluded.

BOTTOM LINE: Acetazolamide is a safe option for combined diuretic therapy, though further investigation is needed in more racially and medically diverse populations.

CITATION: Mullens W, et al. Acetazolamide in acute decompensated heart failure with volume overload. *N Engl J Med*. 2022;387(13):1185-95.

Dr. Chadwick is an internal medicine resident, PGY-2, at Maine Medical Center, Portland, Maine, and Tufts University School of Medicine, Boston.

By Lesley B. Gordon, MD, MS

7 Postsurgical delirium predicts long-term cognitive decline

CLINICAL QUESTION: How does postsurgical delirium impact cognitive performance over a six-year follow-up period?


Dr. Gordon

BACKGROUND: Delirium is a challenging syndrome that is frequently encountered in hospitalized older patients and is associated with bad outcomes including increased length of stay (LOS) and higher mortality. There is a growing understanding that patients with delirium are at a higher risk of cognitive impairment and dementia. There is a need to better characterize the relationship temporally between delirium and cognitive decline beyond the short term.

STUDY DESIGN: Prospective cohort study

SETTING: Beth Israel Deaconess Medical Center and Brigham and Women's Hospital, Boston

SYNOPSIS: 560 patients ≥70 years of age and undergoing major elective surgery requiring an anticipated LOS of ≥3 days were included in the SAGES cohort; exclusion criteria included pre-existing dementia or delirium, as well as recent hospitalization. Patients underwent delirium assessment during hospitalization, and cognitive performance tests both preoperatively and prospectively for six years thereafter. Results were compared to a nonsurgical group of 119 patients. Ultimately, 24% of the SAGES cohort experienced delirium, and these patients were significantly more likely to die over the six-year follow-up period (hazard ratio 1.43). Patients with delirium were found to have a 40% faster rate of cognitive decline as compared to patients without delirium. This study further supports that postoperative delirium is an important marker for the risk of cognitive decline, however, it is currently unclear whether delirium causes the cognitive decline or whether it merely signals people already on the trajectory of decline. For hospitalists, it further strengthens the need to focus on delirium prevention. Limitations include that only 5% of patients were Black or African American.

BOTTOM LINE: Postoperative delirium is a risk factor for cognitive decline, which is still evident at six years of follow-up.

CITATION: Kunicki ZJ, et al. Six-year cognitive trajectory in older adults following major surgery and delirium. *JAMA Intern Med*. 2023;183(5):442-50.

8 CT for evaluation of acute abdominal pain is less accurate without contrast

CLINICAL QUESTION: How does the addition of contrast to a CT abdomen and pelvis ordered to evaluate abdominal pain in an emergency department (ED) setting impact diagnostic accuracy?

BACKGROUND: Although contrast-enhanced CT has historically been the imaging of choice to evaluate abdominal pain in the acute setting, concerns about complications from contrast use (e.g., risk of contrast-induced acute kidney injury) and contrast shortages can result in these scans being ordered without contrast. At this point, it is unclear to what degree withholding the contrast causes a diagnostic error; this is important to clarify in order to have better-informed decision making regarding the use of contrast in this patient population.

STUDY DESIGN: Retrospective study

SETTING: Patients were from a single, quaternary care, academic ED; radiologists were from three centers

SYNOPSIS: The study included 201 consecutive ED patients who were ≥18 years old and had a dual-energy contrast-enhanced CT (intravenous and oral) ordered for evaluation of acute abdominal pain. Using these CT scans, researchers digitally subtracted iodine to create virtual unenhanced CT data. Experienced radiologists performed a blinded review of the unenhanced CT scans, and these findings and recommendations were compared to the interpretations of the contrast-enhanced CT that served as the "reference standard." For primary and important secondary diagnoses, unenhanced CT was approximately 30% less accurate than contrast-enhanced CT (both false positive and false negative). Hospitalists should factor in the reduced accuracy of unenhanced CT scans for acute abdominal pain, both in their decision making surrounding ordering these studies and in interpreting the results of imaging that was already obtained in the ED. Limitations include the universal use of oral contrast for the contrast-enhanced CT and the fact that it was always subtracted from the unenhanced CTs.

BOTTOM LINE: When working up acute undifferentiated abdominal pain, CT scans should be ordered contrast-enhanced as much as possible in order to improve diagnostic accuracy.

CITATION: Shaish H, et al. Diagnostic accuracy of unenhanced computed tomography for evaluation of acute abdominal pain in the emergency department. *JAMA Surg*. 2023;158(7):e231112.

Dr. Gordon is the associate program director of Maine Medical Center's internal medicine residency program, a hospital medicine attending at Maine Medical Center, Portland, Maine, and an assistant professor at Tufts University School of Medicine, Boston.

By Daniel A. Meyer, MD

9 Consider platelet transfusion prior to CVC placement for patients with high-risk thrombocytopenia

CLINICAL QUESTION: Can central venous catheters (CVC) be safely placed in patients with platelet counts less than 50,000 without administration of platelets prior to the procedure?


Dr. Meyer

BACKGROUND: Thrombocytopenia is a common clinical condition in patients with critical illness and the presence of thrombocytopenia can increase the risk of bleeding complications around procedures. The reported risk of bleeding from central line placement in patients with thrombocytopenia is low, but the quality of evidence is poor and there is a lack of consensus on how to manage thrombocytopenia in the context of central line placement. Additionally, expanded use of ultrasound may have reduced the risk of bleeding complications with central line placement.

STUDY DESIGN: Multi-center, randomized, non-inferiority trial

SETTING: 10 hospitals in the Netherlands

SYNOPSIS: A total of 373 central lines were placed during the study; eligible patients were undergoing ultrasound-guided placement of a CVC in a hematology ward or intensive care unit with a platelet count between 10,000 and 50,000 per mcL. Patients on anticoagulation or receiving a peripherally inserted central catheter (PICC) were excluded. Patients were randomized in a 1:1 fashion to receive either a prophylactic platelet transfusion prior to the procedure or no transfusion. The primary outcome was the rate of procedure-related bleeding. Catheter-related bleeding was significantly lower in the group that received a prophylactic transfusion (4.8%) compared to those receiving no transfusion (11.9%) (RR, 2.45; 90% CI, 1.27 to 4.70). A total of 13 severe bleeding events occurred, with only four in the transfusion group. There were only two transfusion reactions. Given the limited supply of platelets, the authors recommend a tailored approach with transfusion given preferentially to those with rapidly declining platelet counts or platelet counts closer to 10,000 to 20,000. Limitations include not reporting rates of aspirin or other anti-platelet use and lack of full blinding.

BOTTOM LINE: Administration of prophylactic platelet transfusion prior to CVC placement is likely to reduce the risk of bleeding for patients with pre-existing thrombocytopenia. Particular consideration for transfusions should be given to those with more severe thrombocytopenia and dropping platelets, however, local approaches should consider the available platelet supply in their decision making.

CITATION: van Baarle FLF, et al. Platelet transfusion before CVC placement in patients with thrombocytopenia. *N Engl J Med*. 2023;388(21):1956-65.

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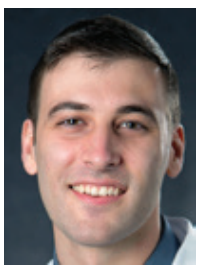
By Adam Long, MD, MS

10 Summary of the global initiative for chronic obstructive lung disease (GOLD) 2023 Report

CLINICAL QUESTION: How did GOLD revise its prior recommendations for the diagnosis and management of chronic obstructive pulmonary disease (COPD)?


Dr. Long

BACKGROUND: The World Health Organization and the National Institutes of Health convened the GOLD expert panel to make recommendations regarding the diagnosis and management of COPD. The 2023 GOLD report addressed prior concerns that the 2017 report lacked diagnostic utility in daily clinical practice. For example, an exacerbation was previously defined as an "acute worsening of respiratory symptoms that results in additional therapy," and severity was defined after the fact based on what therapies were used, rather than objective measures that could guide initial treatments.

STUDY DESIGN: Systematic review guideline update (studies reviewed through 2022)

SETTING: Inpatients and outpatients at risk for or with known or suspected COPD

SYNOPSIS: For hospitalists, the most important updates include the following:

The GOLD assessment/treatment groups were pared down from four to three, notably with a focus on dual long-acting beta-agonist (LABA) and anti-muscarinic (LAMA) bronchodilators, rather than LABA or LAMA monotherapy, for those with significant symptoms or any hospitalization for a COPD exacerbation. An inhaled corticosteroid (ICS) should be added to LAMA+LABA (i.e., triple therapy) if elevated blood eosinophils (≥300 cells/microliter). This has been shown to be superior to LABA+ICS, though note recurrent cases of pneumonia may be an indication to stop ICS therapy.

They describe new criteria to grade the severity of exacerbations. A moderate exacerbation requires three or more of five criteria: dyspnea, tachypnea, tachycardia, resting oxygen saturation on blood gas testing <92% and/or showing a change >3%, or CRP ≥10 mg/L. A severe exacerbation is the same plus acidosis on arterial blood gas, typically with new or worsening hypercapnia.

Hospital management remains similar to that recommended prior: short-acting beta-agonists (SABA), with or without short-acting muscarinic antagonists (SAMA), long-acting bronchodilators per above—ideally during exacerbations, prednisone 40 mg equivalents for five days, antibiotics (if sputum change) for five to seven days, and goal oxygen saturation on pulse oximetry 88 to 92%. Referral to pulmonary rehab after discharge remains controversial and of uncertain benefit. Five-year mortality after a COPD exacerbation requiring hospitalization is high, around 50%.

BOTTOM LINE: The GOLD 2023 report clarifies COPD diagnosis and exacerbation assessments, and chronic management of suspected or known COPD in hospitalized patients should rely on LABA+LAMA (with or without ICS) in addition to typical acute management with shorter-acting bronchodilators, oxygen, steroids, and antibiotics as indicated.

CITATION: Agustí A, et al. Global initiative for chronic obstructive lung disease 2023 report: GOLD executive summary. *Am J Respir Crit Care Med*. 2023;207(7):819-37.

11 Diagnostic yield of head CT in delirium and altered mental status

CLINICAL QUESTION: What is the diagnostic utility of a head CT in hospitalized patients with delirium or altered mental status (AMS) across a variety of clinical settings and what factors, if any, increase that yield?

BACKGROUND: Delirium is the most common neurological disorder in hospitalized patients and is associated with significant morbidity, mortality, and cost to the health care system. Early identification of causes of AMS, including delirium, is important but difficult given the extensive differential diagnosis in hospitalized patients. Head CTs have become increasingly used (and overused), but their diagnostic yield for AMS is not well characterized.

STUDY DESIGN: Systematic review and meta-analysis

SETTING: 46 studies included adult hospitalized patients with a diagnosis of delirium or AMS, admitted either to the emergency department (ED) or an inpatient medical floor (80% of studies) or to the intensive care unit (ICU) (20% of studies). These were about 80% retrospective cohort studies (others prospective or mixed-cohort) in diverse regions with a mean age typically >60 years. The review included all available databases from inception until 2021 (1986 was the earliest included). Studies exclusively of trauma or fall patients were excluded.

SYNOPSIS: In this analysis of 17,241 patients from ED or inpatient studies, and 4,295 patients from ICU studies, the overall yield of a CT head for detection of abnormalities contributing to delirium or AMS was 13% (95% CI, 10.2-15.9) in the ED or inpatient, and 17.4% (95% CI, 10-26.3) in the ICU setting. Chronic findings were considered "normal" in most studies and the majority of head CTs were without contrast. Head CT yield diminished after the year 2000 (19.8% versus 11.1%) and varied by region (8.4% in North America and 25.9% in East Asia). Focal neurologic deficit (FND) was the most consistent predictor of increased yield, up to 19% (95% CI 13.5-25.1), whereas the yield of other categories of patients without FND was approximately 10%.

The study was limited by significant heterogeneity of the included studies, with some risk for bias given that largely observational studies were included, though trends remained consistent on mixed- and random-effects modeling and multivariate regression analyses.

BOTTOM LINE: The overall yield of a head CT for detection of abnormalities contributing to delirium or AMS is approximately 13% in the ED or inpatient floor versus 17% in the ICU setting and was particularly helpful with the presence of FND. Although the diagnostic "yield" of head CT is decreasing with overuse, the management implications of a truly abnormal finding suggest a continued role for CT head imaging in select patients.

CITATION: Akhtar H, et al. Diagnostic yield of CT head in delirium and altered mental status–a systematic review and meta-analysis. *J Am Geriatr Soc*. 2023;71(3):946-58.

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SHORT TAKES

By Lesley B. Gordon, MD, MS

Antibiotics associated with SJS/TEN

In this global systematic review investigating the prevalence of antibiotic-associated Stevens-Johnson syndrome/toxic epidermal necrolysis, antibiotics were associated with 28% of cases, and among these cases, sulfonamide antibiotics were the most frequently implicated (32% of antibiotic-associated cases).

CITATION: Lee EY, et al. Worldwide prevalence of antibiotic-associated Stevens-Johnson syndrome and toxic epidermal necrolysis: A systematic review and meta-analysis. *JAMA Dermatol*.2023;159(4):384-392.

Hospital-acquired bloodstream infections in ICU patients

In this prospective international cohort study of adults in the ICU setting, hospital-acquired bloodstream infections were most frequently gram-negative bacteria (59%), followed by gram-positive bacteria (31%), then fungi (8%). Antimicrobial resistance was common, with "difficult-to-treat" resistance in 23.5%. Overall mortality at 28 days was high at 37%, and factors associated with mortality included infrequent clinical pharmacist consultation and resistant gram-negative bacteria.

CITATION: Tabah A, et al. Epidemiology and outcomes of hospital-acquired bloodstream infections in intensive care unit patients: the EUROBACT-2 international cohort study. *Intensive Care Med*. 2023;49(2):178-190.

Illicit Drugs Adulterated with Xylazine

Emerging threat hospitalists should be aware of

By Shreyas D. Gowdar, MD, MS, and Raghuveer Rakasi, MD, FACP

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Xylazine is a semi-synthetic, non-opioid, sedative paralytic used in veterinary medicine as a tranquilizer. It's an alpha agonist, similar in chemical structure to clonidine and dexmetomidine.[1] It was first discovered in 1962 in Leverkusen, Germany, and used as an antihypertensive.[2] It is an increasingly common additive and adulterant in illicit fentanyl, heroin, and cocaine and it's associated with rising numbers of fentanyl and heroin overdose deaths.

Also known as *anestesia de caballo* (horse tranquilizer), tranq, or tranq dope (fentanyl or heroin cut with xylazine), it's used as an adjunct to enhance and prolong the euphoric effects of fentanyl or heroin.[3] It is most commonly injected intravenously, but can also be inhaled, sniffed, snorted, or ingested.

It was first reported among heroin users in Puerto Rico in the early 2000s and has now been detected with growing frequency in the U.S. Nationwide, xylazine prevalence among drug-overdose fatalities has been documented in 23 states.[2] Philadelphia has been afflicted the most, with surging rates in Connecticut, Massachusetts, and Maryland.[4]

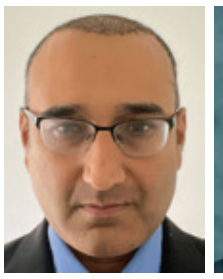
Xylazine does not have a reversal agent, and its effects include sedation, hypotension, bradycardia, and respiratory depression. Its effects are not mediated through opioid receptors, and it has increasingly been associated with difficult-to-treat opioid overdoses and deaths, with a lack of response to naloxone. Xylazine abuse has also been linked with difficult-to-treat, severe, necrotic, skin ulcerations and abscesses.[5] In addition to directly toxic skin effects at injection sites, these skin ulcers are also seen in distant body parts, unrelated to local sites of injection. This is thought to result from vasoconstrictive effects and hypoperfusion leading to ischemia and necrosis.[5] Vasoconstriction-mediated tissue hypoperfusion and reduced tissue oxygenation also lead to impaired wound healing and increased risk of acquiring infections.[5] The skin ulcers are painful, require multiple debridements, and can also lead to amputations. Though the prevalence of skin ulcers is not known, they may be seen in up to 35% of xylazine users.[6] Because the skin ulcers are painful, they promote further injections of xylazine mixed with opiates for their analgesic and sedative effects, which lead to a vicious cycle of abuse.

Xylazine is not classified as a controlled substance by the U.S. Food and Drug Administration. There are no established treatments or guidelines for the care of these patients. Naloxone should be administered first to treat co-occurring opioid effects from fentanyl and heroin. Subsequently, cardiovascular and respiratory supportive care is the primary treatment. Currently, testing for this illicit substance is limited to specialized toxicology testing centers, with liquid chromatography, time of flight mass spectrometry, or liquid chromatography-tandem mass spectrometry devices.[7] No point-of-care testing options are giving rapid results.

It is unclear if the xylazine supply in the illicit-drug ecosystem is due to illegal production of this semisynthetic substance or diversion from the veterinary medical supply chain. Clinicians, first responders, and the general public should be aware of this emerging threat and consider the possibility of xylazine overdose and toxicity in patients with opioid overdoses not responding to traditional reversal agents, especially in those with unexplained severe skin ulcerations. Federal and state health officials should also encourage and facilitate the development of point-of-care testing kits for the detection of xylazine in blood or urine. The development of a standardized protocol for routine post-mortem testing for the presence of xylazine in all opioid overdose deaths could also be an important step.[7]

These measures may further enhance understanding of the true magnitude of the problem, establish trends and patterns of use and prevalence, and enable the early diagnosis and risk stratification of these patients. Another potentially beneficial step may be to label xylazine as a controlled substance. This may accelerate the surveillance of the supply and distribution of xylazine in the veterinary medical-supply chain and strengthen efforts to limit its diversion to the human illicit-drug trade.

Collaboration between state health agencies and federal agencies is crucial to identify the true scope of the prevalence of xylazine adulteration in fentanyl and heroin and to help guide mitigation efforts. Further research is needed, to characterize the synergistic toxic effects of xylazine combined with illicit opiates, to direct effective, public-policy, intervention efforts, and to facilitate the development of treatments for the acutely toxic effects and chronic sequelae. ■



Dr. Gowdar

Dr. Rakasi

Dr. Gowdar is a hospitalist at Baystate Medical Center, Springfield, Mass. Dr. Rakasi is a hospitalist and medical director of the oncology unit at Baystate Medical Center, Springfield, Mass. He is also the secretary of SHM's Western Massachusetts chapter.

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Women Hospitalists Supporting Women

Celebrating women in hospital medicine

By Lisa Casinger

One of the most powerful displays of support among women is when they show up for each other in their professions. This is especially true in hospital medicine, where women have made significant contributions. The women recognized here promote, mentor, encourage, and empathize with other women. We asked them about their efforts to support women, the impact of mentors on their careers, the challenges women still face, and the advice they would offer to other women in hospital medicine. We hope you'll find this as inspiring and thoughtful as we did.

Patricia Tran (@PatriciaTranMD), MD, MS, FAAP

Assistant professor of clinical pediatrics, University of Illinois College of Medicine Peoria, Peoria, Ill.


Dr. Tran

Dr. Tran has served on the Women in PHM steering committee under the American Academy of Pediatrics section on hospital medicine since 2022. With the steering committee, she's been a part of workshops focusing on achieving gender equity in medicine. "I am actively engaged in my institution in teaching and mentoring, where I hope to inspire and support the next generation of women in medicine," she said. "I also try to use my social media accounts to uplift and sponsor women in medicine, to highlight the achievements of women in medicine, and to connect with and support younger women in medicine."

Dr. Tran says she's had great mentors throughout her career. "I've had the honor of calling Dr. Joanne Kennedy my mentor since I was a teenager. She was the first pediatric hospitalist that I ever met and without a doubt, she's the reason I am a pediatric hospitalist!" she said. "Dr. Kennedy helped me frame my medical career—first to medicine, then to pediatrics, and then to pediatric hospital medicine, and to this day I still consult with her regularly." Dr. Tran also counts her residency program director, Dr. Yameika Head, as a great mentor who helped her recognize her worth as a physician and as a leader within the program. Her fellowship program director, Dr. Susan Flesher, supported her desire for further education and sponsored her through a master's degree in health care administration during her fellowship.

"These women, and many others, have offered invaluable advice, shared their experiences, helped me build networks, and provided opportunities for me to grow both academically and professionally," Dr. Tran said. "They have instilled in me a love for teaching, a passion for advocacy, and the resilience needed as a woman in medicine."

Women in hospital medicine, like women in the workplace at large, face several ongoing challenges, says Dr. Tran: the persistent gender pay gap, underrepresentation of women in leadership roles, work-life balance, and gender discrimination. "Greater awareness of this disparity and allyship on an individual level is proving to help some women face these challenges, but there will be no forward progress without translating this allyship into a systemic cultural change," she said. "This systemic change is vital for creating and sustaining an equitable work environment for women in hospital medicine."

While Dr. Tran modestly says she doesn't feel qualified to offer anyone advice, she encourages women in medicine to know their worth and surround themselves with people who recognize their value and will advocate for them. "These are the people who will help you frame the career you want for yourself, will sponsor you for opportunities that align with your personal and professional goals, and will support you on your own journey," she said. "Oh, and also the best advice I've ever received is this: 'No' is a complete sentence."

Catherine Washburn, MD

Assistant professor of medicine, Johns Hopkins University, Baltimore


Dr. Washburn

Dr. Washburn is the wellness director for her hospital-medicine group. In that capacity, she's the leadership champion for its women-in-medicine affinity group, which supports social and teambuilding events that encourage women hospitalists to "go for it" professionally and support them as they navigate motherhood and their early careers.

"We also advocate for individuals' needs behind the scenes," Dr. Washburn said. "I want to see the women in my group achieve what they are capable of—which is greatness."

When it comes to mentors, Dr. Washburn says she hasn't had many until recently. She said it was mainly because she didn't understand the importance of mentors. "I do have a mentor now and am cultivating others," she said. "My mentor has encouraged me to take chances and given me opportunities for added responsibility."

Dr. Washburn says one of the challenges facing women in hospital medicine is that they still do the lion's share of caregiving and unpaid labor in the home. "Until we change that, we will not achieve career equity with men," she said. "Married mothers do nearly 3.5 times as much core housework—unpaid home labor—as married fathers. And while we are in the moment, it's very difficult to change the dynamic that led to the inequity. Another huge challenge for some women in the U.S. is the threat to their ability to control their fertility, through limitations/bans on abortion and birth control."

Advice for women in hospital medicine:

- Bloom where you're planted
- Negotiate—with your leadership for equitable pay and with your partner for a true sharing of parenting, caregiving, and unpaid-labor responsibilities
- Just say yes. Volunteer for things, don't wait for the perfect opportunity to come along
- Make use of mentors, coaches, and therapists
- Speak up

Danielle L. Clark, MD, MEd

Assistant professor of medicine and associate program director of internal medicine residency, University of Cincinnati Medical Center, Cincinnati


Dr. Clark

Dr. Clark is the president of Women in Medicine and Science (WIMS) at her institution. "Our chapter is dedicated to promoting gender equity at our institution and beyond," she said. "In my role, I set up professional development opportunities, run networking events, and have helped establish a new mentorship program at our college which reached more than 50 women faculty members during its pilot year."

WIMS also actively advocates for gender-equity policies, most recently tackling parental leave and lactation space at UC Cincinnati. By promoting leadership opportunities and recognizing the amazing efforts of chapter members and women at the institution, WIMS empowers women physicians at all stages of their careers. The group also brings in speakers from the community, such as the director for public policy for Planned Parenthood Ohio, hoping to inspire others to contribute to a more equitable health care system.

Dr. Clark says mentors have played a crucial role in her professional journey as a physician, providing guidance, support, and valuable insights that have helped her navigate academic medicine. And, while mentorships are beneficial, she says the importance of sponsorship cannot be overstated. "Despite being early in my career, sponsors have helped shape its trajectory, sharing opportunities for publications and speaking engagements, and ensuring my work is recognized by their leaders as well," she said.

She says the biggest challenge for women is the lack of access to affordable and reliable childcare, which is particularly difficult for trainees who often have significant debt and work atypical hours. Another challenge is the lack of representation in health care leadership. "Although we witness more women entering the field of medicine, there's a disparity when it comes to women holding high-level leadership roles, particularly in academic medicine," Dr. Clark said. "Addressing this challenge requires fostering an environment that promotes equal opportunities for leadership development, establishing mentorship and sponsorship programs specifically tailored for women, and implementing policies that ensure gender diversity in leadership positions."

Her advice for women in hospital medicine is to "lift while you climb," a phrase that's embodied by many of her leaders. "As women, it is crucial to support and uplift one another in our professional journeys," she said. "We must all learn how to be successful mentors, and even better yet, excellent sponsors!"

She also advises women to actively seek opportunities to mentor and empower other women in medicine, sharing their knowledge and experiences. By fostering a supportive network and advocating for each other's success, women can break barriers of bias, overcome challenges, and collectively advance gender equity in medicine to create a more inclusive environment.

Khaalisha Ajala, MD, MBA, FHM

Assistant professor of medicine, Emory University School of Medicine, Atlanta

Dr. Ajala says her advocacy for women in medicine starts with students—from premed and med students to physician assistant students, pharmacy residents, interns, and residents.

Dr. Ajala

"While the medical profession has grown quite a bit and you see a representation of Black women, there are still some programs where you may not see many of us," she said. She wants learners at all levels to see how she's grown within her career and how she's made her love for hospital medicine work for her and how they can do the same.

She sees her role as an academic hospitalist as a platform not only to talk about how to manage patients in the inpatient service but also to educate learners about what it's like to practice hospital medicine and what a fruitful career it can be. "I try to help them to understand our schedules, our lifestyles, how much hospital medicine has grown, and how much we can impact change," she said.

"Many K-12 students see that half of the people in medicine are women," she said. "But, what I found interesting is that the key questions middle and high school girls ask are 'How do you plan to have a family if you're a woman and a doctor? Do you want children? Will you have a nanny? If you're married, how will you get your husband or partner to help with childcare?'"

Many medical students and residents ask these questions as they're deciding which field they should go into because they're trying to figure out their lifestyle and family and caregiving roles she says. "Those of us who identify as women take on more of the domestic burden at home or the domestic role."

Dr. Ajala acknowledges that these are real concerns and questions and tries to ease that anxiety and tell these future women of medicine that there are many ways for them to care for their families and still be a hospitalist.

"I tell them I have a passion to help others and I find that in global medicine," she said. "And if you feel that's your calling, the support will follow, but you shouldn't limit yourself based on the fear of not having a partner who may not support your goals. I point out that I do have a supportive husband, and I've had these conversations with him that when the time comes and we have a little one, I'm still going to have this passion."

Dr. Ajala encourages learners to find someone who has the same sense of adventure and wants to help others and not to hide that part of themselves to have a future with a person—it doesn't serve you, your career, or your patients, she says.

Dr. Ajala has had many mentors during her career—Dr. Daniel Howard, Dr. Daniel Dressler, Dr. Dan Hunt, Dr. Kimberly Manning, and Dr. Joanna Bonsall. They helped by introducing her to the ideas of hospital medicine, mentorship, coaching, and sponsorship.

She says the sponsorship manifested in her speaking to various groups—as she did at SHM Converge 2023 with her Rounding While Black session—and becoming involved in different committees, like SHM's Diversity, Equity, and Inclusion committee. Being involved in the DEI committee enabled her to help develop the pathway program which engages local students at every Converge.

Aside from her role as an academic hospitalist, and her involvement in committees and groups, she also has a nonprofit—Tribe Called Health, which is a local community-facing health program.

Dr. Ajala says the biggest challenge for women in medicine is themselves. "It's us, not going after or applying for what we deserve," she said. "It's not seeing the leader in ourselves."

She explains that while the idea of imposter syndrome is real, "It's not as much about how all women or how Black women see themselves, it's about the fact that these systems that led them to feel insecure about their potential are still in place. Imposter syndrome doesn't occur in a vacuum. I get the idea behind imposter syndrome, but that absolves the systems in place that are still making young girls think they need to reconsider a dream they had to be a physician because of the feedback they're getting in school or from their mothers' experiences in the world."

The system is what makes all those learners question if they'll have to derail their careers to be a mother. Dr. Ajala says there are the stressors and pressures that come with the job, but then women have the added worry about how they're perceived—such as "Are they pulling their weight if they have to take the day off to care for a child or parent? Are they placing a burden on their colleagues if they need to leave early?"

"Sometimes the biggest struggle we have is still within ourselves because there's a shame there that many women in our careers face for just wanting to acknowledge our humanity," Dr. Ajala said.

There is also a certain expectation in the way women emote with patients. "There's an expectation that I will emote a little bit more, have a little bit more empathy, to make the patient feel more comforted," she said. "And, there's already an assumption when I walk into the room that I may be transport, or nursing staff, or dietary staff. So, I repeat myself a few times because that happens. After all, I'm a woman and I'm a Black woman."

Dr. Ajala's advice for women in medicine is "Go for it and make sure you have those around you who really support you. Have pride in yourself. Don't carry that burden of shame and guilt a lot of women carry for wanting to grow within their careers, or for scaling back their schedule to fit time for wellness and their families. Find a community of women, supportive men, and/or nonbinary people who can encourage you to imagine a career that works for you."

Jessica Allan (@JessieAllanMD), MD

Pediatric hospitalist, Palo Alto Medical Foundation, and adjunct clinical associate professor of pediatrics, Stanford University School of Medicine, Palo Alto, Calif.

Dr. Allan has become increasingly engaged in gender-equity research and advocacy over the past few years to support her colleagues and optimize patient care. In 2019, she and Dr. Julie Kim led a workshop on gender bias in medicine at the Pediatric Hospital Medicine (PHM) conference. They recognized there was a need to create a community of support for women in the field, and the 500 people who joined the Women in PHM sub-committee confirmed this need.

Dr. Allan

Simultaneously, they worked with colleagues to publish information relevant to all physicians—not just women—in pediatric hospital

medicine. In a Journal of Hospital Medicine article, Dr. Allan and her co-authors analyzed the proportion of women in leadership positions at university-based PHM programs and found that compared with the PHM field at large, women are underrepresented as PHM division and program leaders. More recently, she published a research letter in JAMA Network Open that demonstrated the continued underrepresentation of women editors among high-impact pediatric journals.

Dr. Allan says having mentors for different personal and professional buckets has been key. "Dr. Julie Kim has been a wonderful mentor and collaborator," she said. "Dr. Barrett Fromme is a critical mentor and has sponsored me for numerous opportunities. For example, she mentored me through my first grand rounds presentation and first national leadership position." Dr. Allan has several research mentors, and she appreciates how they can enter your life at all stages of your career and do not necessarily have to be more senior. For example, early career pathologist Dr. Jeremy Jacobs recently "mentored up" and taught her important skills for gender-equity research.

The evidence showing gender disparities in medicine is plentiful. "We need to transition our focus to implementing effective system-based strategies to support women in medicine," Dr. Allan said. "As hospitalists, we are experts in navigating complex, dynamic hospitals and are in a prime position to improve the system for women in medicine."

Recently, she was a co-editor of a Women in Medicine and Science supplement for the Journal of Medical Internet Research, and lead author on an article describing immediate actions to promote equity in the workplace. These actions include regularly conducting 'stay interviews' to increase physician retention and transparently tracking departmental/divisional metrics such as discretionary funding and committee work.

Her advice for women in medicine is that instead of women changing or doing more, allies should start intentionally sponsoring women. The Sponsor Her campaign led by Dr. Julie Silver was just launched to increase the sponsorship of women in medicine. This annual strategic initiative is aimed at improving gender equity in the health care workforce as a component of the Harvard Medical School women's leadership CME course. Partners in the campaign include the American Medical Women's Association and the Executive Leadership in Academic Medicine Program.

"Some ways allies can sponsor a woman include nominating her for an award, amplifying her work on public platforms, inviting her for a speaking opportunity, and sponsoring her for a senior authorship position," Dr. Allan said. "A good way to start is to ask her, 'How can I best sponsor you in a way that will be helpful to you in your career?' Keep in mind that not only do trainees and early-career women in medicine benefit from sponsorship but so do mid-career and more senior women."

Additional Reading

1. Allan JM, et al. Gender distribution in pediatric hospital medicine leadership. *J Hosp Med*. 2021;16(1):31-33.
2. Allan JM, et al. Five Strategies Leaders in Academic Medicine Can Implement Now to Enhance Gender Equity. *J Med Internet Res*. 2023;25:e47933 doi: 10.2196/47933.
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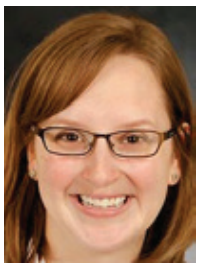
Jennifer K. Readlynn (@jenreadlynn), MD, FHM

Hospitalist and clinician educator, University of Rochester School of Medicine & Dentistry, Rochester, N.Y.

Advocating for women in hospital medicine is near and dear to Dr. Readlynn's heart. She collaborates with peer mentors to ensure they understand the state of women in medicine at her institution and how to problem-solve the pain points. "We have a women in medicine interest group in our department that not only highlights the accomplishments of women in the department but also brings in speakers and collaborates with our DEI [diversity, equity, and inclusion] team to work on projects to improve the lives and address issues for women in medicine," she said. "This includes a microaggression/discrimination/bias reporting system and an awards committee to ensure women in our department are recognized for the work they do, both locally and nationally."


Dr. Readlynn

Dr. Readlynn says she's been fortunate to have multiple mentors throughout her career. She has peer mentors (Dr. Christine Osborne, Dr. Meghan Train, and Dr. Jenn Zagursky) who help ground her in reality and build her up when she's going through a tough stretch. Dr. Amy Blatt and Dr. Valerie Lang have been excellent mentors in medical education and encouraged her to explore interests in antiracism in medical education and medical education scholarship. "My mentors know me and my values and help me deal with the ups and downs of a career in academic hospital medicine," she said. "They also understand me as a whole person and help me maintain my identities of wife and mother outside of medicine. I've also found several mentors through SHM—on the academic committee and Journal of Hospital Medicine, and, of course, through JHMchats!" The ability to interact with such a broad community and meet people outside her home institution has been valuable and enhanced her experiences through SHM. Even seeing the careers of women in hospital medicine she admires, like Dr. Kimberly Manning and Dr. Vineet Arora, motivates her to keep going and trying to make the systems better.

"I think the biggest challenges for women still center around being taken seriously and having the same opportunities as male colleagues," Dr. Readlynn said. "Very few men still take paternity leave, so there is still a stigma or concern about women's 'dedication' or ability to take on a new leadership role or project when they take maternity leave. Women continue to fight against gender stereotypes and be seen as the physician in the room. This not only occurs with patients but with colleagues as well. Despite our presence in hospital medicine, women still need to work to establish respect from others."

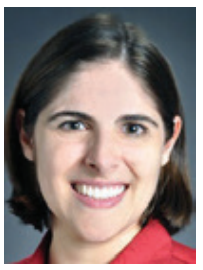
Dr. Readlynn's advice to other women in hospital medicine is to find your community—whether it's in your institution, on Twitter, or through national meetings like SHM Converge or Women in Medicine Summit. She says it helps to have co-commiserators to know you're

not in it alone, but remember to turn into co-conspirators who are part of the solution. "I love the quote from Ruth Bader-Ginsburg, 'Speak your mind, even if your voice shakes'," she said. "Mine certainly will but I have learned with time that it matters and can make a difference. The next time I speak up, it's a little less shaky."

Alyssa M. Stephany, MD, MS, PFF (ICF), SFHM

Director, physician-provider organizational support, director, leadership center for physicians, and associate professor, University of Kansas School of Medicine and University of Missouri-Kansas City School of Medicine, Children's Mercy Kansas City, Kansas City, Mo.

Dr. Stephany said. "I love being able to connect with women in hospital medicine and help them make connections. I truly believe that much of my success has come through the relationships I've built in SHM, so I love being able to connect other women to people who can help sponsor them and their work."


Dr. Stephany

Dr. Stephany says she's had amazing mentors and advises people to look for mentors with similar qualities. She says to seek mentors who will help you reach your potential and even stretch beyond what you think your potential is, believe in you even when you don't believe in yourself, and give you important critical feedback.

The biggest challenge for women, she says, is the belief that there's a perfect balance. "I used to strive for balance until I realized that I wanted to reframe things into 'fluid presence.' Picture the bubbles in a lava lamp—at any one time in your life you bubble in this direction or that direction. Whether you're on service, in a leadership meeting, or at your kids' play, bubble fully in that direction and be present fully."

Dr. Stephany says that while she will never feel 'balanced', she knows she can feel fully present, and this idea of seeing work-life as fluid helps her feel good about what she does and who she is as a physician, physician-leader, wife, and mother.

Her advice for other women in hospital medicine is something one of her best mentors reminds her, "Do you love someone and does someone love you? That's likely all that really matters."

Pavani Gunda MD, FACP, CHCQM, CDIP, Dipl ABLM, SFHM

Hospitalist, medical director at Jefferson Health New Jersey, Washington Township, N.J.

Dr. Gunda, who is also a mindfulness-based stress reduction teacher and a certified yoga instructor, advocates for women in her various roles. "I've been a great advocate for giving equal opportunities," she said. "When I've had the capability to hire, I've always advocated for equality in department, leadership, and committee positions."


Dr. Gunda

Aside from that, Dr. Gunda also likes to have a supportive workplace program that encourages health and well-being; a space where women can uplift one another and support each other.

Mentors have been a vital component of Dr. Gunda's life and career. "When I did my residency, this was a new place, a new country for me," she said. "I went to med school in India, so it was very different. Although I wanted to do a fellowship in pulmonary critical care, my mentor, Dr. Ronald Ciubotaru, recognized something in me. He said we need good physicians like me to remain in the practice of primary care and not to worry if I did not get into a fellowship program. That really touched me."

Dr. Gunda found satisfaction working in hospital medicine where she could see diverse patients. Although Dr. Ciubotaru has passed away, Dr. Gunda says every time she treats a patient, she notices his practice style in hers. He also taught her to treat her patients as if she were treating her family members.

Dr. Gunda grew up with her grandmother; she views her and her mother, who was a physician, as two strong mentors in her life.

"I learned strength, kindness, and resilience from my grandmother. She was my first teacher," she said. "My mother was a very successful OBGYN, and I absorbed the qualities of honesty, trust, and moral uprightness from her."

As others have said, work-life balance, especially as a mother, is a big challenge for women in hospital medicine. Early on in her career, it was especially challenging with two small children working 12 on 12 off shifts. She spent her time raising her children, working, and neglecting herself. She says she started feeling burnout right around the five to seven-year mark in her career and questioned whether to remain a hospitalist, pursue a further fellowship, or go into something else—something that would give her some control over her time and schedule. She turned to her close friends from medical school then—both of whom are specialists. Dr. Gunda soon realized they did not possess any more control over their schedules than she did. Looking for something she could control, Dr. Gunda turned to wellness—taking care of herself first so she could better care for her children and patients.

"That's how my journey from illness to wellness started," she said. She added yoga instructor and mindfulness teacher to her many roles, worked shorter shifts, and took on more administrative work, which allowed her more flexibility. "That gave me time for wellness. I started with morning walks every day. I have set aside mornings as my time for wellness and self-care. I started giving different care to my patients—better care, I think, because I was happy and well and advocating the same for them."

Dr. Gunda says achieving work-life balance is difficult, to begin with, but even more so for single parents or individuals who do not have social support or families living around them. This is another reason she advocates for health and wellness and supportive programs for women in the workplace.

"Work-life balance is one challenge, and the other thing is that we forget to take care of ourselves," she said. "Self-care is extremely important. These are the most essential things that affect what we do."

Dr. Gunda encourages all women in hospital medicine to lean into their strengths, stay grounded, and seek a good work-life balance.

"When I was burnt out, I thought I was going to leave hospital medicine, but I did not," she said. "This is my 16th year as a hospitalist, and whatever I am today, whatever I have gained, whether it's knowledge, experience, or credentials—I am basically a hospitalist at heart. I am still working, and I truly enjoy my work."

Karen A. Friedman (@karenfrieman9), MD, MS-HPPL, FACP

The Lawrence Scherr Endowed Professor of Medicine, vice chair for education, and internal medicine residency program director, North Shore University Hospital and Long Island Jewish Hospital, Manhasset, N.Y.

Dr. Friedman says one of the most rewarding things she's done to help advocate for women in hospital medicine is through the academic promotion process. She created a group through the Alliance for Academic Internal Medicine (AAIM) called PSWIM, or promotional support for women in medicine. "We created a repository of volunteer promotional letter writers specifically for women seeking academic promotion as clinician educators," she said. "While there are many barriers to women achieving the levels of associate and full professor, finding external referees can be especially challenging. Often women with multiple responsibilities find it difficult to attend conferences and make these connections. We have a process whereby we provide letter writers for women going up for academic promotion. In this group, I collaborate with about 15 other AAIM members every month. In the last three months alone, we've made 33 matches for letters."


Dr. Friedman

Dr. Friedman has had many mentors during her career. "They've all taught me that anything you want is achievable through hard work," she said. "They also taught me to advocate for myself, and once I achieved a certain level to use that status to advocate for others. The single greatest advantage of achieving academic stature as a female is my ability to mentor junior faculty and advocate for them."

While women, for the first time, make up more than 50% of medical school classes, the numbers drop for women entering academic medicine. "The greatest challenge we face right now is gender equity in the highest level of academic medicine, i.e., deans of medical schools and chairs of departments," Dr. Friedman said. "Women need mentorship and sponsorship and the opportunity to participate in skill-building programs such as the Executive Leadership in Academic Medicine program."

Dr. Friedman says she often tells other women in medicine that they are not alone. "It literally takes a village to succeed and you just need to find your village," she said. "Seek out mentors and sponsors and actively participate in sessions, courses, and conferences that teach you the skills you need to succeed. Also, listen to the stories of the women around you who have achieved the level you want to achieve; you will see that they have struggled the same as you. Hearing their stories can be inspirational."

Avital O'Glasser (@aoglasser), MD, FACP, SFHM

Professor of medicine, and medical director of pre-op clinic, Oregon Health & Science University, Portland, Ore.

Dr. O'Glasser takes her responsibility to role model, advocate, and pay it forward seriously.

Being recognized for their work, whether through promotion or other means, is often a struggle for women in medicine. Dr. O'Glasser understands this—she was named full professor this summer—and also understands that sometimes you have to be your own advocate.

And that's exactly what she did when she put herself up for the promotion.


Dr. O'Glasser

Countless articles and studies report that women often don't apply for jobs or promotions unless they meet every requirement, while men apply for the same roles even if they don't meet the requirements. Dr. O'Glasser said she's fortunate that her division created a faculty promotion and assessment committee to help hospitalists reach their goals. This is especially helpful for women.

The committee reviews your curriculum vitae (CV) and helps you figure out what you could fill in or accomplish to meet your goals. And that's what Dr. O'Glasser did.

"About two years ago, I was getting close to the time-based minimum requirement in rank, and I was curious about where I stood," she said. "I got very constructive, positive feedback and I was 100% ready, not 110%."

Part of that feedback involved how to add her non-traditional work—the digital scholarship and social-media-based activities—to her professional dossier and outline its impact and trajectory. To pay it forward, Dr. O'Glasser posted a thread on Twitter (X) about how to put yourself up for promotion. Her thread, posted in July, outlines, among other things, how you incorporate these talents and skill sets into your CV.

Another advocacy avenue is championing the issues that disproportionately affect women. Dr. O'Glasser says discussions about staffing models are important, and if you have a seat at the table you need to have robust conversations about maternal or paternal leave, the logistics of sick days, and the culture that surrounds both.

While everyone acknowledges the importance mentors can have on your career, Dr. O'Glasser says not everyone knows what that looks like. "I got a lot of advice early in my career—you need to have mentors," she said. "I didn't know what that meant or what it could do for me. It just seemed like one more task to add to my to-do list. But I learned that having a deep bench of mentors is crucial."

She stresses the importance of having mentors at different levels in their careers and at different levels compared to your career. She also says it's good to have mentors for different things. You need "battle buddies"—people to discuss the day-to-day issues that come with being in the trenches and a "kitchen cabinet"—those who give you advice on your clinical roles and the niches outside of clinical medicine like your passions, family life, and leadership roles.

Gaining a mentor doesn't have to be a huge task on your to-do list. "The most robust mentorship relationship I have started organically by striking up a conversation with somebody," Dr. O'Glasser said.

One of the biggest challenges women in medicine face is the same one all hospitalists face—shift work. Often this affects women more, though, because they disproportionately take on more caregiver roles outside of their careers. Dr. O'Glasser says flexible or creative staffing models that meet people where they are in their lives would go a long way toward alleviating this challenge.

"One of the other challenges is helping hospitalists articulate that the work they're doing counts as academic accomplishments, especially for women," she said. "We do have data that shows women disproportionately picked up that kind of volunteer stuff [work housekeeping] during COVID-19. How do we help people get that on their CVs?"

For example, hospitals who shifted to lay-facing outreach groups during the pandemic, or who have health-systems leadership roles, should be able to reflect how impactful those efforts were on their CVs.

Dr. O'Glasser's advice to other women hospitalists is to have a psychologically safe space and set boundaries. "If I could be like the Cinderella fairy godmother, I would grant everybody that ability. I know many people are not in a position to be able to do that based on their work group culture. There's so much pressure on junior faculty to say yes to every committee invite they get."

If you're given three opportunities, for example, and one is going to look best on your CV, one is going to be the best fit for your schedule, and one is going to be a little more time-intensive but ignites your passions, "you have to work through what's going to be best for you, not best for somebody else or best for your boss."

"That's my biggest piece of advice—realize that setting boundaries is important and healthy, and it's crucially important to well-being and wellness." ■

Teaching Cases: A Recipe for Success

Clinician educators can nurture learners within the evolving clinical environment

By Heather Hofmann, MD, FACP, Anand D. Jagannath, MD, MS, and Andrew P.J. Olson, MD, FACP, FAAP

A chef is a skilled professional cook.[1] In many ways, hospitalist clinician-educators are like chefs, seeking to prepare and deliver an educational experience that nourishes and satiates the learner. However, modern inpatient care—with its capacity challenges, the recent COVID-19 pandemic, and ongoing staffing shortages—makes this challenging.

Early in the pandemic, medical students left the clinical environment, and they did not care for patients with COVID-19 upon returning.[2] Hospital epidemiology changed, with fewer "bread and butter" conditions and reduced resources for treating non-COVID-19 illnesses.[3] These challenges modified our learners' clinical experiences to mirror take-out dining: the incorporation of technology to increase safety and compressed timeframes for rounds and rotations.[4] While the COVID-19 pandemic has abated somewhat from the hospital, these challenges remain.

Even before COVID-19, the unpredictability and idiosyncrasy of the clinical environment made curating effective, high-quality educational experiences challenging.[5] At times, financial pressures for hospital systems drive quality metrics and push against education in favor of service. Many patients are in the hospital awaiting post-acute placement without active problems to diagnose or manage, and time at the bedside for clinicians continues to be the minority of each day.[6] Does today's teaching menu for hospitalists still consist of teachable moments, or should we be satisfied with a fast-food, drive-thru experience?

We offer this perspective: all cases are good teaching cases. Just as a great chef can make a wonderful meal with seasonal ingredients alone, clinician educators can continue to nurture learners within the evolving clinical environment. All cases are good teaching cases when we recognize and understand context, focus on intentional learning, and ensure that the serving size matches learners' needs.

Dr. Hofman

Dr. Jagannath

Dr. Olson

Dr. Hofmann (@HeatherNHofmann) is a hospitalist and assistant professor of medicine at Loma Linda University Health, in Loma Linda, Calif. Dr. Jagannath (@AnandJag1) is a teaching hospitalist and site director for medical students at the VA Portland Healthcare System and an assistant professor of medicine at Oregon Health and Science University, VA Portland Healthcare System, Portland, Ore. Dr. Olson (@andrewolsonmd) is a hospitalist in the departments of medicine and pediatrics and an associate professor of medicine and pediatrics at the University of Minnesota Medical School, Minneapolis, Minn., where he is the founding director of the division of hospital medicine within the department of medicine and the director of medical education research and innovation in the medical education outcomes center. Dr. Olson receives grant funding from the Alliance for Academic Internal Medicine, the Gordon and Betty Moore Foundation, and Crico to study improving diagnosis, and from 3M unrelated to this work.

Context matters

The clinical environment has a profound influence on the educational experience.[7] Consider a restaurant: a loud or chaotic environment distracts from the gustatory experience. A chef must curate the space to allow their guests to fully experience the food. Similarly, the "noise" of the clinical learning environment requires the teacher to create time and space for effective learning. Great chefs adapt to different kitchens, tools, and time schedules. Similarly, clinician educators must constantly adapt to a changing care environment.

A recipe makes learning intentional

There is substantial focus at the curricular and programmatic levels of medical education on developing high-quality learning objectives. Clinical teachers may find setting objectives challenging because of an ever-changing patient census. How do you plan a menu when you don't know what ingredients will be available? Learning objectives can be developed intentionally and collaboratively in the moment between teachers and learners. Teachers and learners should seek to develop learning goals at the beginning of their time together and continue creating more specific learning plans based on the cases available. The combination of learners, patients, and learning environment helps guide learning objectives for each patient case.

For example, a typical case of cellulitis becomes more engaging when one considers changes to clinical variables: "What if this rash was bilateral?" "Should we obtain a lower extremity ultrasound?" "Are blood cultures necessary?"

Noting the educational needs of different learners may offer insights into areas of teaching focus. Does a student want to focus on physical exam skills, while a senior resident wants to improve knowledge on core medicine topics? Perhaps we charge the senior resident to consult the primary literature while we do exam rounds with the student, circling back later to review what the senior has learned. We must adapt our recipe to the ingredients at hand.

Serving up the right amount of learning

In addition to combining ingredients to bring out the best flavors, a chef must also serve the right amount of food. If the portions are too small patrons may feel that they didn't get their money's worth, and if the portions are too large they may be too full to enjoy the meal and order dessert. Cognitive load theory suggests that our learners come to the clinical learning environment with different learning appetites and abilities to digest teaching each day.[8] If the teacher serves up more than the learner can digest, well-intentioned efforts may end up being resented. Conversely, if the teacher trades education for efficiency, irreplaceable learning opportunities are lost.

Elements of a good teaching case

When we consider context, recipe,

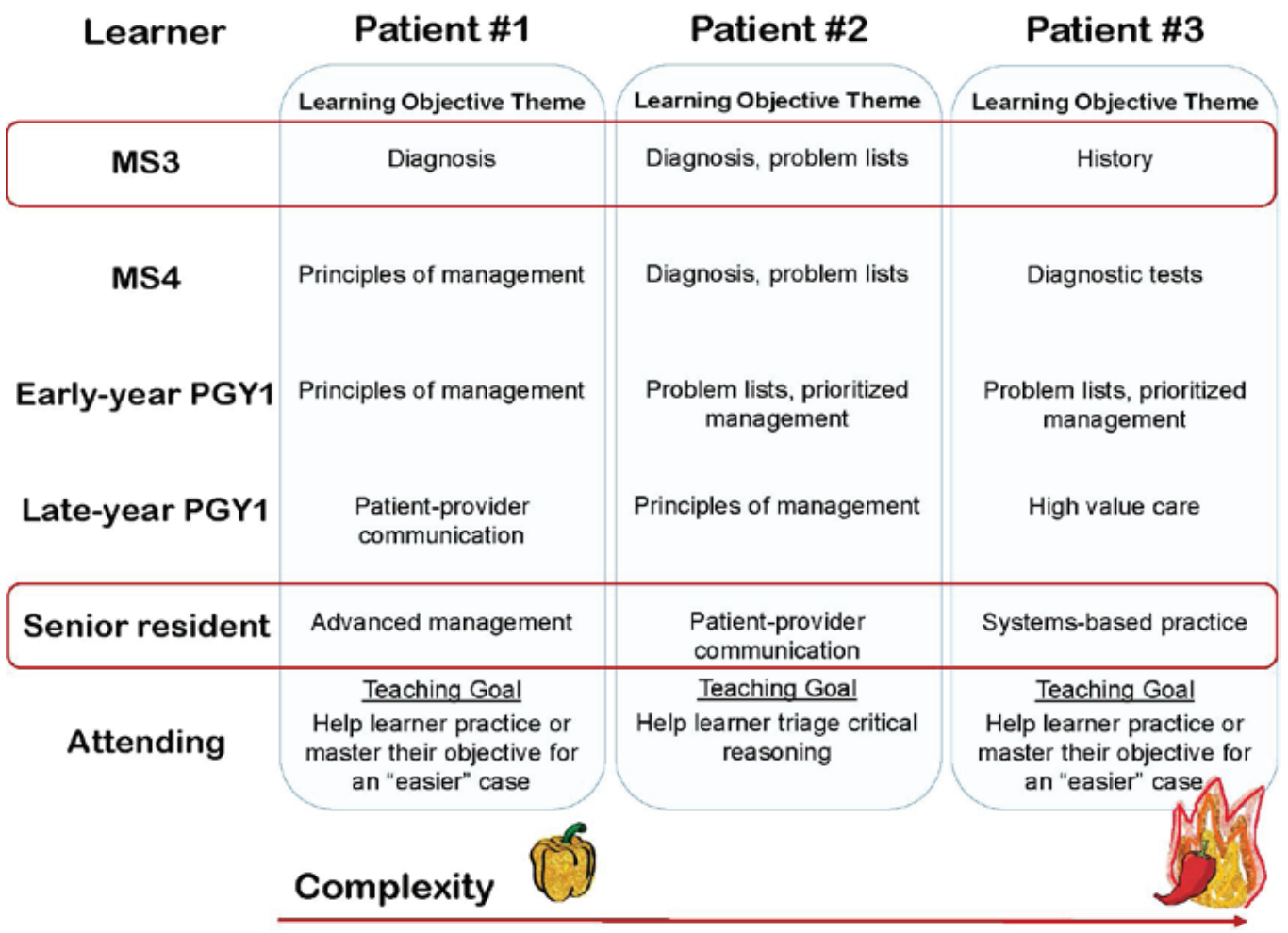


Figure 1: Schema for identifying learner-centered, patient-centered learning objectives.
Abbreviations: MS3, MS4: Medical student year 3, 4. PGY1: Post-graduate year 1. Level of case complexity increases from left to right. Level of learner increases from top to bottom. Red outline shows an example teaching scenario, with two learners (MS3, senior resident) and three patients.

and portion size in crafting a learning experience, we have the opportunity to cook up something special. Let's consider two recipes for a good teaching case.

Recipe #1, Med Ed Soup

Ingredients:

- **Patient**
- **Learner**
- **Teacher**

Instructions: Mix and serve

Modifying the ingredients or their proportion will still create an educational soup.

Alternatively, clinician educators and learners may desire a more nuanced recipe for a good teaching case, one that considers learning and the environment more intentionally. Such a recipe yields a coveted educational pastry:

Recipe #2, Med Ed Pastry

Ingredients:

- **Patient-specific factors—**the care team must be able to obtain history directly from the patient, or from others about the patient. Obtaining history is not the same as being able to verbally communicate directly with the patient.
- **Learner-specific factors—**the learner must establish and communicate specific, measurable, attainable, relevant, and timely (SMART) objective(s) for the patient encounter.[9] If the learner is unable to do so, consider referencing program or clinical-rotation objectives, or using published recommendations, such as those for the curriculum of the Alliance for Academic Internal Medicine.[10] Teachers can also collaborate with learners to create an overarching educational goal and set specific learning objectives to focus teaching.
- **Teacher-specific factors—**the teacher must have a fundamental core knowledge of internal medicine. If another learner is serving as the teacher, they must have a fundamental core knowledge of the topic. The teacher must personalize and communicate the learning objectives for the patient encounter. A great teacher successfully juggles goals, such as role modeling effective clinical skills including professionalism, creating and maintaining a positive, safe learning climate, and promoting learner understanding and retention.[11]

Key Points

- Consider learning environment changes as an opportunity to create an incredible and effective learning experience.
- Pause and plan. Think about what you are making when teaching and gather the ingredients.
- Identify and tailor learning objectives to the learner's level.

Instruction: Aligning patient, learner, and teacher-specific factors is key for successful learning. If case complexity and learner objectives are discordant and case availability is limited, the teacher should modify the learning objectives to better fit the given case. This process is represented in the learner-patient matrix in Figure 1.

Elements in action

Alcohol withdrawal syndrome (AWS) is a common diagnosis with increased incidence during the COVID-19 pandemic and learning opportunities for all levels.[12] Consider a patient with alcohol use disorder presenting to the hospital five hours after their last drink with confusion, slurred speech, fingertip tremors, and elevated blood alcohol level. Recipe #1 for this case will certainly offer teaching, however, recipe #2 increases the potential for expanded learning across different levels (e.g., pathophysiology, diagnosis, treatment, health care systems) throughout the hospital course.

A teaching schema for our patient with AWS can be adapted to the learner-patient matrix in Figure 1. For the third-year medical student with a good foundation of basic science and strong history-taking skills, appropriate learning objectives include developing and sharing an illness script for AWS. A fourth-year student with strong presentations and problem representations could be challenged to identify potential complications (e.g., gastritis, hepatitis, refeeding syndrome, Wernicke's encephalopathy) and to recommend interventions to prevent or mitigate them. An experienced intern or early senior resident who consistently prioritizes problem lists and differential diagnoses could be challenged to share the evidence behind AWS management and identify barriers to hospital discharge. By considering patient, learner, and teacher-specific factors along with case-specific learning objectives, we can expand the learning possibilities from a common diagnosis across different learner levels.

Conclusion

The COVID-19 pandemic continues to change medical education. The educational paradigm must shift to recognize that every case is a good teaching case. There is a multitude of learning opportunities through diagnostic clues, therapeutic strategy, and systems-based practice that offer robust teachable moments with our patients.[13] Rather than focus on finding a great case, we must strive to make every case great for teaching.

Bonne santé! ■

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Dual Specialties—the Best of Both Worlds

Enabling hospitalists to pursue their passions and expand their clinical knowledge

By Sue Coons

Hospitalists who decide to pursue additional board certifications to broaden their field of practice seldom take the same path. Regardless of whether they chose this road for a clinical interest or to further their careers, the road is personal and requires much thought and effort, dual specialists say.

Mayssa Abuali, MD, is board certified in general pediatrics, pediatric hospital medicine, and pediatric infectious diseases.

Dr. Abuali

Now the director of the Einstein Pediatric Inpatient Service at St. Christopher's Children's Hospital in Philadelphia, she decided to maintain her certification in general pediatrics while pursuing subspecialties because she believed that a strong foundation in general pediatrics was key to being an excellent physician.

She completed a fellowship in pediatric infectious diseases and was practicing as a pediatric hospitalist when pediatric hospital medicine (PHM) became recognized as a unique and free-standing field. "I believe that PHM requires unique knowledge and skills, and I wanted to become certified so that it could reflect my unique and varied clinical and academic skill set," she said. Dr. Abuali is now practicing in all three fields.

Taking an unexpected turn

One provider had a profoundly personal journey to becoming credentialed as both an endocrinologist and a hospitalist. Harkesh Arora, MD, a physician with Lovelace Medical Group in Albuquerque, N.M., had always planned to return to India after completing her medical training. "In India, it doesn't serve you very well to be a generalist," she said. "I wanted to specialize right from the beginning."

Dr. Arora

In her first job after fellowship training, Dr. Arora found herself juggling an entire clinic while trying to care for her two infants, who had been born less than 12 months apart. "The situation was not manageable since I faced a productivity-based work environment that bred hostility," she said. "Now we talk big time about burnout. Back in 2012, that was not even a word in the medical literature."

When Dr. Arora resigned, she vowed never to put her family in that situation again. She was forced to liquidate everything and leave for India. Unfortunately, she had to return to the U.S. due to a lack of support.

The question upon returning was not whether she should specialize in endocrinology or internal medicine, but how she could safely get back into the country to work and have no "red flags." "For the J1 waiver jobs, there are more internal medicine and hospital-site employers than endocrine employers. I wanted an immigration-strong company/corporation, not necessarily endocrine-strong," she said. "I just continued from there, and the rest is history."

Dr. Arora now identifies as an endocrine hospitalist. "If you go by data, we are fewer than 1% in the country. Fewer than 50 of the 6,000 practicing endocrinologists in the U.S. practice as endocrine hospitalists," she said. She looks to Mihail Zilbermint, MD, MBA, at Johns Hopkins in Bethesda, Md., as an authority on the role of an endocrinologist in a hospital setting. "Johns Hopkins has a similar model of endocrine-hospitalist service and is one of the largest in the nation (24 provider team)." In addition to her traditional roles, Dr. Arora was recently appointed as the director for inpatient diabetes management for all the Ardent hospitals nationwide.

Linking a different interest

Another clinician incorporated a third interest after being certified in geriatrics and hospital medicine. Anirudh Sridharan, MD, of Johns Hopkins Howard County Medical Center in Columbia, Md., first focused on geriatrics training. He found the pace of office visits to be stressful, though, and decided to switch to hospital-based work late in his fellowship. Since many hospital patients are older, he still found the opportunity to practice geriatrics, just in a different setting.

Dr. Sridharan

Dr. Sridharan then developed an interest in process improvement. "Our informatics systems are central to that. They're often the lever we use to improve care." Howard County Medical Center had an open opportunity at the time for a physician to work in informatics, and Dr. Sridharan was able to use a practice pathway that allowed him to learn on the job. After several years of intense study, he became board certified in informatics at the end of 2020. He now works as the chief medical information officer as well as the medical director of geriatrics.

Dr. Sridharan credits his time in his geriatrics fellowship for making him a more complete physician as well as giving him a better idea as an informaticist of what physicians need. "I think the perspective of being an attending for a couple of years helped me be a better informaticist," he said.

Daily realities

Dr. Abuali said she now applies her clinical

knowledge daily in all three of her fields. "There is much overlap between the three specialties. For example, many of the patients I care for as a pediatric hospitalist are admitted to the hospital with infections," she said.

As an endocrine-trained hospitalist, Dr. Arora said she can still comprehensively cover the "bread and butter" issues of patient care, including diabetes, hypertension, and high cholesterol, while covering other acute-care issues. Apart from that, when a specific endocrine case is expected in her hospital, that patient is usually scheduled so she can see the patient and oversee the care. "For example, if a patient needs an insulinoma or an adrenal gland-related workup, the staff will call me or electively admit the patient during my work week since this is a specialized endocrine workup." She is also happy to help her hospital colleagues when they call asking for advice on these cases.

Dr. Sridharan now works clinically as a hospitalist for about 25% of his time. Another 25% is spent on geriatric process improvement, such as collaborating with four local skilled-nursing facilities. He meets with them at least once a month, sometimes once a week, to discuss patients and how to improve transitions of care.

The remainder of his time is spent on clinical informatics and how to improve the medical record system. "Everything just doesn't happen inside our EHR [electronic health record]. You also must improve the processes around the use of the EHR," Dr. Sridharan said. He tries to have a process improvement mindset when talking to frontline users to understand how they do their work. "Then you design your computer systems to augment that. When it works best, you provide people with clinically relevant information at the right time and hopefully reduce nurses' and doctors' cognitive burden."

Process improvement is about taking things off clinicians' plates and allowing them to concentrate on tasks where humans are needed, such as "gray areas" where computers cannot be relied upon to make good decisions, Dr. Sridharan said. Even minor tweaks to systems involve a team of informatics personnel and clinical users, however. "It would be nice if we could just snap our fingers and make it better, but you need all those experts and all those perspectives," he said.

A positive result can be gratifying. "I get a lot of satisfaction in my work when they say, 'You have made my job easier,'" he said.

Challenges still exist for dual specialists, however. "Wearing many hats as a dual specialist is challenging and enjoyable but at times results in being pulled in different directions at once as others try to tap into your many fields of expertise," Dr. Abuali said. "To address this challenge, dual specialists have to refocus and carve out their own unique academic and clinical niches."

Dr. Abuali finds the field of hospital medicine to be very welcoming, but the world of pediatric infectious diseases can feel a little smaller as more of these specialists pursue "micro niches" such as antibiotic stewardship, infection control, or transplant medicine. "Practicing in dual specialties does not allow time for a micro niche. While being ultra-specialized is often professionally rewarding, I prefer the challenge of maintaining broad interests," Dr. Abuali said. "I cherish the ability to innovate and create within multiple fields through protocol creation, research, and medical education. I love the fact that I can function as a bridging leader to bring the fields of hospital medicine and infectious diseases together."

Discovering a passion

The three clinicians encourage tapping into a "passion" or strong interest before pursuing an additional certification. After Dr. Arora's first two internal medicine rotations as a resident, she realized she was a "numbers person." "You can wake me up in the middle of the night, and I can fix the sugars just like that. That was my drive and passion, and the hospital setting turned out to be a blessing," she said.

Looking back, Dr. Arora said her skill sets helped her decide where to specialize. "I knew somewhere inside me I would not be the person taking care of 15 problem lists simultaneously. I like to be very specific, preferably in one field only, and then do my best. That was my drive that led me to choose my specialty."

Recognizing skill sets and primary interests can help others decide as well, she said. "I think it's all about passion and your goals. If it excites you, and if you can make it work, you should definitely do it."

"Pursue your passions within medicine, even if combining fields or dual specializing is viewed as unconventional by some," Dr. Abuali said. "Being a dual specialist can vastly expand your circle and increase your opportunities within research/academia as well as within the job market. It can make career transitions smoother, allowing for greater flexibility, and capacity for transformation at any stage."

Don't underestimate the effort needed to make this happen, however. "It comes down to thinking about what motivates you, what brings you joy in your work," Dr. Sridharan said. He needed this motivation when taking online courses and studying for the informatics boards while still practicing as a clinician. "The important thing is having some drive, some real love for [the new interest]. It does take effort and you need that kind of motivation to stick with it because it's very easy to get distracted. There are just so many things in life that you're dealing with, and you can understandably lose focus." ■

Sue Coons is a medical writer in Chapel Hill, NC. She also has worked in the hospital patient access area for 10 years.

Career

HIRED

The checklist to help you stand out as an applicant

By Maria Maldonado, MD, Alan M. Hall, MD, and Teela Crecelius, MD

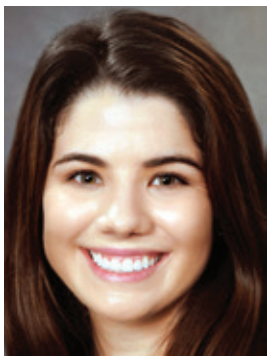
Whether you're a first-time applicant or looking for a career change, applying for a hospitalist job can seem daunting. It can often prove difficult to differentiate yourself from other applicants. It is important to showcase your attributes and determine if a particular hospital medicine group or hospital system is a good fit for you. We developed a mnemonic checklist (HIRED) based on best practices as well as national survey data on top qualifications for hospitalist candidates to help you stand out as an applicant for hospital medicine.

H—Hone your application skills

An organization's first impression of an applicant comes from the cover letter, curriculum vitae (CV), and additional application materials. Use a cover letter to promote your best qualities and state your specific interest in the job or region. Use action verbs in your CV to highlight your strengths and top qualifications, including comfort with acuity, procedures, and volume; interest in research, quality improvement, or education; and success of prior projects. Your CV should be clearly formatted with section titles and concise summaries instead of paragraphs.[1] Ensure that you correct typos and grammatical errors before submission. Having a mentor or colleague review and provide feedback can be critical to your success. This is the place where you showcase what makes you stand out from other hospitalists—harness the power of your CV to showcase how you can make a positive impact on the organization.

I—Improve your interview skills

The most important thing you can do to prepare for an interview is practice! Much like preparing for a speaking engagement, practicing out loud ensures you do not stumble over words and helps further develop your thought process; you may say your answer out loud and then decide it does not convey the message or have the tone you had hoped for. Mock interviews with a colleague or mentor can be invaluable to provide additional feedback. Devote time to commonly asked questions, such


Dr. Maldonado


Dr. Hall


Dr. Crecelius

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as your background, interests, goals, and reasons for applying to this specific job. Organizations commonly pose behavior-based interview questions to explore how you handled prior situations and gauge your interpersonal communication skills and problem-solving skills. Reflect on prior jobs or projects as well as performance reviews to ensure you have adequate information to form your responses.

Consider scheduling your top choice institution after you have had other interviews, so you are more familiar with the interview process and better understand which questions to expect and ask of the institution. Focus on positive social interactions with staff members during your interview day and always pay attention to your body language.[2] Demonstrate thoughtfulness—balance promoting yourself with modesty and self-awareness. If you have a virtual interview, ensure your camera and microphone function properly and that you choose a well-lit, quiet area with your cell phone on silent.

R—Research the organization

To help show your interest in the program and ensure the job fits you, it is vitally important to research the institution and the region where you are applying.[2,3] Before you apply, ensure the program and the region can offer what you desire in terms of career and personal satisfaction. After you apply, your research should help prepare you to explain why this particular job and/or region interests you and how you will be able to succeed. As part of your research, ensure you have a list of questions to ask, and be sure to ask questions at every interview. Asking questions can help you understand the program better and, just as importantly, will help you demonstrate your interest in the job.[3] Questions that are unique and tailored to the individual program are ideal. If you feel like you've run out of questions to ask, feel free to ask the same questions at different interviews. Networking by connecting with others at the institution of interest can also be a helpful means to learn more about the program.

E—Emphasize professional communication

After researching and applying to a program, your next step is professional and responsive communication. Ensure timely responses to emails or any other forms of communication. You do not need to check your email constantly, but your goal should be to respond to any emails within about 24 hours. Not responding to emails promptly when looking for a job may raise concerns about your email responsiveness if you are hired. If asked to schedule an initial phone call or screening interview, provide a range of dates/times when you are available. Once scheduled, ensure you take the responsibility to place the appointments on your calendar with appropriate reminders. After your interviews, thank-you notes likely will not increase your chances of a job offer, but they can still be a polite thought. If you decide to write them, an email instead of a hand-written note is fine and has the advantage of being timelier.

D—Do not...

During the interview, it is important to present yourself well without focusing on topics that may present as a red flag to potential employers. Employers may shy away from candidates who focus heavily on salary, benefits, or time off.[2] This may signal to an employer that an applicant focuses more on the financial aspects of their job rather than patient care. In addition, it is important not to anchor on personal work limitations (such as never wanting to work nights, or a goal to maximize time off).[2] While it is reasonable to ask about financial attributes and the work schedule if not explicitly disclosed, it is important to balance these with questions related to patient care, education, or other aspects of the job that are important to you. As discussed above, do not come to an interview without having performed extensive research on the area, hospital system, and program beforehand. This could lead to an unproductive interview as well as demonstrating a lack of interest in the program. Finally, avoid saying something just because you think the interviewer wants to hear it. Be honest. For example, it is better to disclose that you may be applying to a fellowship in an upcoming cycle rather than to be caught in a lie further along in the application process.

Conclusion

There is great variety within hospital medicine jobs, including the hospital system's characteristics, schedule, and degree of multidisciplinary support. Significant variation also exists in responsibilities expected beyond clinical care, including administrative tasks, quality improvement, patient safety, and education. The best hospital medicine candidates tailor their application process to the job of interest, showcasing attributes that best fit a particular job. This HIRED framework (left) provides a backbone to ensure you stand out as a candidate and hopefully find that perfect next career transition. ■

This content is sponsored by the SHM Physicians in Training (PIT) committee, which submits quarterly content to The Hospitalist on topics relevant to trainees and early career hospitalists.

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SIG Spotlight: Value-based Care

The balancing act of patient care and profitability

By Richard Quinn

The majority of health care in the U.S.—and the majority of hospital medicine practice models—is delivered on a fee-for-service basis, but is that the best construct through which to administer treatments, therapies, and bedside manner to hospitalized patients?

Well, that's the central question of SHM's Value-Based Care Special Interest Group (SIG).

"What we hope to do is generate interest within the groups who are working within the value-based sphere," said SIG vice chair Vivek Ramanathan MD, MBA, CPE, FHM. "Meaning right care, right time, right place. The financial goal is being aligned with that. So, that's what we want, and that's where many hospital systems are heading, too. That's why we're generating such a lot of interest within SHM."

Dr. Ramanathan

The sales pitch for that might seem like a massive headwind to some, but Dr. Ramanathan, a regional medical director in Southern New Jersey for Sound Physicians, sees it differently.

"Most doctors want to do the right thing, right?" he said. "What we're facing is a financial misalignment, as well as a patient-expectation misalignment. If we are aligned with financial incentives, not making that the number-one thing, but it certainly helps, I think you can all move toward what we eventually want to do, which is drop the entire cost of health care."

And while that can seem like "a big, hairy, audacious goal," Dr. Ramanathan recently experienced it firsthand when his mother-in-law called him, borderline hysterical. She had severe abdominal pain and rectal bleeding. She called her primary care physician—as she should have—and as that physician was out of the office, the call went to a physician assistant (PA) who after a brief conversation told her to go to the emergency department (ED) for a CT scan and other testing. Dr. Ramanathan instead decided to visit her and after a physical exam, decided that her presentation of "a soft belly" could be much less severe than anything necessitating a trip to the ER.

"I said, 'Look this could be a bout of diverticulitis, you could just be constipated,'" he said. "I checked her vitals and gave her some MiraLAX. Seven days later we go see [a gastroenterologist], and they say, 'Look, it is probably some diverticulitis, colitis. You did the right thing. Let's get a colonoscopy,' which is really the test that you need."

Dr. Ramanathan says the issue for physicians isn't that they want to send folks to specialists and EDs for things that could be handled other ways—it's the "elephant in the room....the litigation component."

"The PA who picked up the phone for my mother-in-law doesn't know my mother-in-law," he said. "She's thinking that, if this is something catastrophic, I don't want to tell her to stay at home. That's my license. We immediately jump to the quickest, maybe the safest, safety net."

To Dr. Ramanathan, the SIG is a home for physicians looking for better care delivery systems.

"We all have different perspectives and different masters, as it were," he said. "But the one master we should all be paying attention mostly to is the patient, right? So, people and processes, we've got really great minds and it's sharing our processes, which has been super fun. How did you get there? How did you get the C-suite to align with moving away from quantity and going towards quality? How did you get your docs to turn patients around in the emergency department? How did you get them to reduce their inpatient testing?"

Like other SIGs that deal with overbroad topics, one of the hurdles for value-based care is that the topic seems so big as to be unmanageable.

"The fact that it's so wide is kind of why we have struggled a little bit, trying to get it ramped up," Dr. Ramanathan said. "And the way you do it is the journey of the patient. From the outpatient world to the emergency department to the hospital, where we are, as hospitalists, and then connecting it back out to the outpatient world. Whether that's a post-acute space, or whether that's home health, or telemedicine, all of those things need to be incorporated."

Dr. Ramanathan does see progress. Decades ago, health maintenance organizations were an iteration that tried to address value-based care. But those ended up, in many instances, being about the rationing of care.

"What we want is that phrase: right time, right place, right care," he said. "Empowering doctors to do the right thing, but incentivizing them to do the right thing, too. And so, I think we've been doing it forever. But where the inflection point is when you see the health care costs in the U.S. You've seen the outcomes, so something has to be done differently." ■

Richard Quinn is a freelance writer in New Jersey.

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Lake Erie/Northeast Ohio

Looking for more diversity among represented institutions

By Richard Quinn

Success is defined differently by different leaders.

Some leaders of SHM chapters might be sated by having won a 2022 Silver Award.

Not Tanveer Singh, MD, FACP, FRCP (Edin), FHM, president of the Lake Erie/Northeast Ohio chapter.

Dr. Singh

"We were very excited to win the award," said Dr. Singh, associate staff in the department of hospital medicine at Cleveland Clinic Community Care in Mayfield Heights, Ohio. "We were very proud of the work that everybody in the chapter has done. The next time, we are looking to get the Gold award...that's the goal. It inspires us to get better."

Dr. Singh, who joined SHM in 2019, says he joined SHM and quickly saw his professional society as his home. When chapter leaders approached him to get involved, doing it felt like payback for "the connections and great networking" it afforded him.

"The biggest thing to being in the leadership position in the chapter is it gives me the opportunity to look at the functioning of SHM at a closer level," he said. " It also helps me shape the future of the chapter. And, most importantly, I think it gives me a way to develop my own leadership skills working with the other members and other leaders."

Part of leadership is branching out, and Dr. Singh sees that as a pathway to growth for his chapter. He is working with the Ohio chapter of the American College of Physicians to do a joint event that he hopes will help lure members.

"It will put the name of SHM out there and will encourage the other hospitalists in the area to join," Dr. Singh said.

Any chapter leader—regardless of whether their curriculum vitae includes a national award—will attest that member engagement is the key to a healthy chapter. Dr. Singh says regular contact is a touchstone to keep local hospital-medicine practitioners happy.

"The way I try to approach it is by talking to the colleagues I work with and sending them a periodic email and showing them the value of these sessions," he said. "And also reaching out to my fellow hospitalists in other institutions, even though I don't directly work with them, and see if they find certain sessions that they feel will help with their professional growth."

In a medical market like Northeast Ohio, one of the challenges is feeling like the only institution that matters is the behemoth that is the Cleveland Clinic, from which the chapter draws most of its members.

"I want to have more hospitals, more physicians from different hospitals, join our chapter," Dr. Singh said. To do that, the chapter is starting to have at least one leadership position from outside the Cleveland Clinic system. "We want to have more diversity in our leadership...we want to have hospitalists from those institutions join the leadership rank, as well, so we can expand the leadership, and thus they go back to their institutions and discuss with their colleagues to show them the value of becoming a member of SHM."

But it's not just headline names, hospitals, and hospitalists Dr. Singh wants to attract.

"I think there is also a value involving the residents and [advanced practice practitioners] so they can see some of the value of SHM," he said. "We gear at least one session every year toward residents. These are the future physicians, the future hospitalists, and we can have them join SHM at this stage of their career so we can have continuous involvement from their side throughout their careers."

Dr. Singh notes that engaging early-career practitioners means they often take membership and active involvement even more to heart, often viewing chapters more as a passion project than a professional obligation. That's one reason the chapter created a resident liaison position, to create a bridge.

"Especially if they are on a hospitalist track, they know this is going to be their career, so it helps them to be involved early," he said. "It also helps the chapter so that we can have new thoughts."

All of the initiatives Dr. Singh sees for his chapter's future involve branching out: More diverse geography; more diverse membership; more sessions on topics members want. In the end, the idea is that reaching more people with more of what they want will create its own momentum as they realize the chapter—and by association, SHM—exists and succeeds only with its members.

"Every hospitalist is just as valuable," Dr. Singh said. "That's what we want to show them. I think once they get a sense of community, it kind of spreads. I think initially we have to break the ice and show them that if they join the community, they will get real resources as a member of the chapter." ■

Richard Quinn is a freelance writer in New Jersey.

Interior Health

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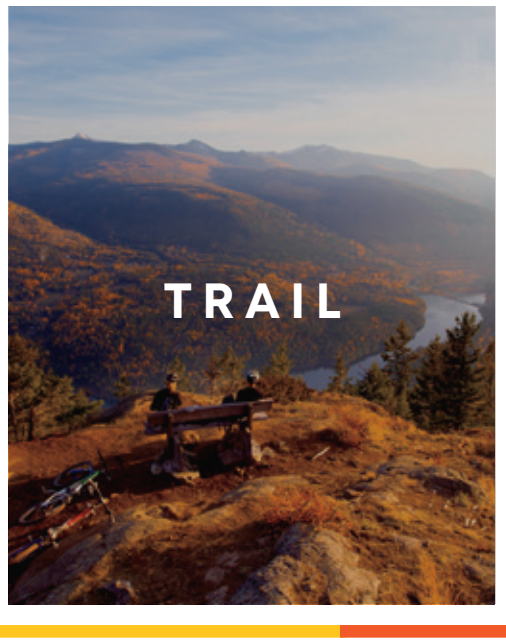

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INTERIOR HEALTH

Interior Health is committed to providing exceptional healthcare services to the communities and individuals in the Southern Interior of British Columbia. Our mission is to set new standards of excellence in healthcare delivery across the province. Our aim is to cultivate a supportive environment where you find fulfillment in your work, your workplace, and the people you work with. Each person's contribution is vital in ensuring seamless care, and together, we build thriving workplaces.