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# the Hospitalist

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# Introducing The Bookshelf

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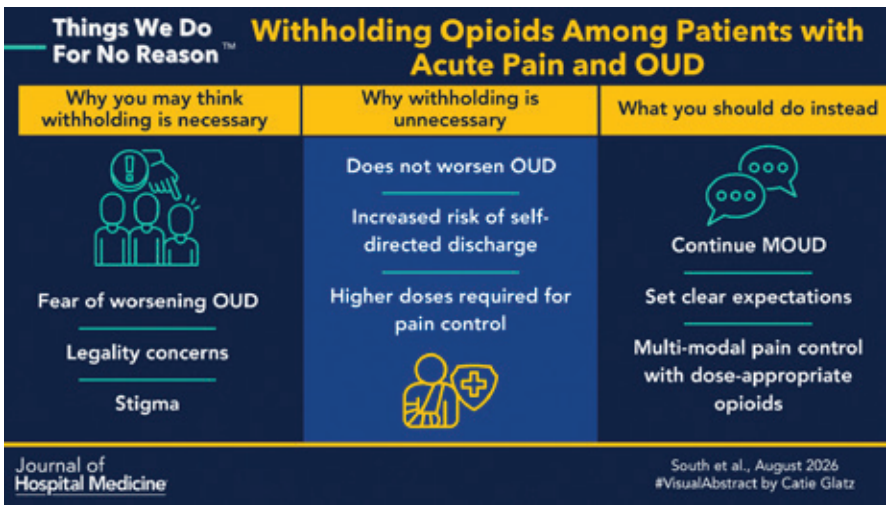


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# From the *Journal of Hospital Medicine*

Hospitalists care for patients with acute pain who have an opioid use disorder and require pain management. Hospitalists may withhold opioids for acute pain due to a variety of reasons. However, adequate pain management in patients with opioid use disorder, including with opioids, is the standard of care.

This article in the *Journal of Hospital Medicine*, Things We Do for No Reason: Withholding Opiods Among Patients with Acute Pain and Opioid Use Disorder, explains how to best manage acute pain in hospitalized patients with opioid use disorder with supportive evidence and discharge planning considerations. ■

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In the Literature

# MedStar Washington Hospital Center's Medical Literature Reviews

**By Amanda Magee, DO, FACP, SFHM, Naveed Choudry, MD, FACP, FHM, Meghan Connelly, MD, Raphael Pristoop, MD, FACP, Christina Maguire, MD, Eliana Bonifacino MD, MS, Shaunak Kulkarni, MD, David Fink, MD, and Soumya Narayan, MD**

*MedStar Washington Hospital Center, Washington, D.C.*

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**By Amanda Magee, DO, FACP, SFHM**

## 1 Targeted Inpatient Correction of Chronic Hyponatremia Does Not Improve Short-Term Clinical Outcomes

**CLINICAL QUESTION:** Does targeted correction of chronic hyponatremia in hospitalized patients reduce 30-day mortality or rehospitalization compared with routine care?

Dr. Magee

**BACKGROUND:** Chronic hyponatremia is associated with falls, cognitive impairment, fractures, and increased mortality, but it remains unclear whether hyponatremia itself worsens outcomes or reflects underlying illness severity. Observational studies suggest normalization of sodium may improve outcomes, but prospective randomized evidence has been limited.

**STUDY DESIGN:** Pragmatic, multicenter, randomized, controlled, parallel-group, superiority trial with blinded outcome assessment.

**SETTING:** Nine university and regional hospitals in five European countries from August 2018 to April 2024

**SYNOPSIS:** This randomized controlled trial enrolled 2,173 hospitalized adults with chronic hypotonic hyponatremia (serum sodium less than 130 mmol/L; median, 127 mmol/L). Patients were assigned to either a targeted plasma-sodium-correction strategy based on guideline-directed diagnostics and treatment, or standard care directed by treating physicians. The primary outcome was 30-day death or rehospitalization. Targeted treatment achieved higher rates of normonatremia (60.4% versus 46.2%) and greater sodium correction than standard care but did not reduce the primary outcome (20.5% versus 21.8%; absolute difference -1.3 percentage points, $P$=0.45). Mortality, rehospitalization, quality of life, neurocognitive outcomes, falls, fractures, and hospital length of stay were also similar between groups. Overcorrection occurred slightly more often with the targeted intervention (2.3% versus 1.4%), though there were no occurrences of osmotic demyelination syndrome. These results differ from prior observational data linking sodium normalization to improved outcomes and suggest that intensified inpatient correction alone may not improve short-term clinical outcomes. Limitations include the inability to blind treatments, the predominance of moderate rather than severe hyponatremia, and the interventions' duration during the patients' hospitalization.

**BOTTOM LINE:** In hospitalized patients with chronic moderate hyponatremia, targeted sodium correction improved normalization rates but did not reduce 30-day mortality or rehospitalization compared with usual care.

**CITATION:** Refardt J, et al. A randomized trial of targeted hyponatremia correction in hospitalized patients. *NEJM Evid*. 2026;5(3):EVIDoa2500086. doi: 10.1056/EVIDoa2500086.

*Dr. Magee is an academic hospitalist and division chief of hospital medicine at MedStar Washington Hospital Center and an associate professor of medicine at Georgetown University School of Medicine, both in Washington, D.C.*

**By Naveed Choudry, MD, FACP, FHM**

## 2 Apixaban Carries Lower Bleeding Risk Than Rivaroxaban in Acute VTE

**CLINICAL QUESTION:** In patients with acute venous thromboembolism (VTE), is apixaban associated with a lower risk of clinically relevant bleeding than rivaroxaban?

Dr. Choudry

**BACKGROUND:** Apixaban and rivaroxaban are the most commonly prescribed oral anticoagulants for acute VTE, recommended as first-line therapy over vitamin K antagonists because of their improved safety profile. In the original trials supporting their use, clinically relevant bleeding occurred in 4.3% of patients on apixaban compared with 9.7% on warfarin, and in 8.1% of patients on rivaroxaban compared with 8.1% on warfarin. Prospective trials directly comparing the two agents have been lacking, and these differing results have been attributed to differences in trial populations and design rather than the drugs themselves. As a result, current guidelines do not recommend one agent over the other, and the choice between them remains at the discretion of the treating clinician.

**STUDY DESIGN:** International, prospective, randomized, open-label, blind endpoint (PROBE) trial

**SETTING:** Thirty-two centers in Canada, Australia, and Ireland

**SYNOPSIS:** A total of 2,760 adults with acute symptomatic venous thromboembolism (proximal deep vein thrombosis [DVT] or pulmonary embolism [PE]) were randomized 1:1 to apixaban (10 mg twice daily for seven days, then 5 mg

twice daily) or rivaroxaban (15 mg twice daily for 21 days, then 20 mg daily) for three months. Among the 2,700 patients analyzed, clinically relevant bleeding occurred in 3.3% of the apixaban group versus 7.1% of the rivaroxaban group (relative risk [RR], 0.46; 95% confidence interval [CI], 0.33 to 0.65; *P* <0.001). Major bleeding alone was also markedly lower with apixaban (0.4% versus 2.4%). Most of the bleeding difference occurred during the first three weeks, when rivaroxaban was given at its higher loading dose. Recurrent VTE was similar between groups (about 1% each), and mortality was low overall. The trial's open-label design leaves some potential for ascertainment bias. Patients with active cancer, body weight over 120 kg, or creatinine clearance under 30 mL/min were excluded, limiting generalizability to populations commonly seen in hospital medicine.

**BOTTOM LINE:** Apixaban is associated with significantly lower clinically relevant bleeding compared with rivaroxaban in patients with acute VTE, though current guidelines do not yet favor one agent over the other.

**CITATION:** Castellucci LA, et al. Bleeding risk with apixaban vs. rivaroxaban in acute venous thromboembolism. *N Engl J Med*. 2026;394(11):1051-1060. doi: 10.1056/NEJMoa2510703.

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**By Meghan Connelly, MD**

## 3 Lost in Transition: Teens Falling Through the Cracks After ED Mental Health Visits

**CLINICAL QUESTION:** Among adolescents with depression or suicidal ideation discharged from the emergency department (ED), what factors are associated with timely primary care follow-up?

Dr. Connelly

**BACKGROUND:** Timely outpatient follow-up after ED visits for adolescent mental health crises is recommended but inconsistently achieved. Prior studies show disparities in access to care. These disparities may be based on insurance and race, with structural barriers—including neighborhood-level disadvantage—playing an important role.

**STUDY DESIGN:** Retrospective cohort study

**SETTING:** Single tertiary children's hospital in the mid-Atlantic U.S.

**SYNOPSIS:** This retrospective cohort study included 3,362 adolescents (ages 12 through 19) who screened positive for moderate or severe depression or suicidal ideation (SI) in the ED and were discharged. The primary outcome was primary care follow-up within 30 days; the secondary outcome was follow-up within seven days. Only 21.2% completed the 30-day follow-up, and 11.1% completed follow-up within seven days. Adolescents from very high Child Opportunity Index (COI) neighborhoods were more likely to follow up than those from very low-opportunity areas. Privately insured patients had higher follow-up rates than their publicly insured peers, and Black adolescents were less likely to follow up than white adolescents. Notably, patients with current SI were less likely to complete follow-up. Limitations include single-center design, reliance on in-network follow-up data, and inability to confirm visit content. These findings align with prior literature demonstrating disparities in outpatient mental health care. However, this study places an emphasis on access and extends prior research by highlighting the impact of neighborhood opportunity on follow-up after ED visits.

**BOTTOM LINE:** Most adolescents do not receive timely primary care follow-up after ED mental health visits, with disparities driven by neighborhood opportunity, insurance, and race.

**CITATION:** Joshi P, et al. Follow-up after ED visits for teens with depression and suicidality: a retrospective cohort study. *Pediatr Open Sci*. 2025;1(4):1-7. doi: 10.1542/pedsos.2025-000857.

*Dr. Connelly is trained in med-peds and is an academic hospitalist in the division of hospital medicine at MedStar Washington Hospital Center in Washington, D.C.*

**By Raphael Pristoop, MD, FACP**

## 4 Adding Ticagrelor to Aspirin After CABG for Acute Coronary Syndrome Does Not Improve One-Year Cardiovascular Outcomes and Increases Bleeding Risk

**CLINICAL QUESTION:** In patients undergoing CABG for acute coronary syndrome, does one year of dual antiplatelet therapy with ticagrelor plus aspirin improve clinical outcomes compared with aspirin alone?

Dr.Pristoop

**BACKGROUND:** Current U.S. and European guidelines recommend dual antiplatelet therapy (DAPT) after CABG for patients with acute coronary syndrome, despite limited direct evidence in this population. These recommendations are largely extrapolated from percutaneous coronary intervention (PCI) trials and observational studies, while randomized data specific to CABG patients remain sparse. Determining whether DAPT improves outcomes after surgical revascularization is clinically important, especially given concerns about postoperative bleeding.

**STUDY DESIGN:** Multinational, open-label, registry-based, randomized, controlled trial

**SETTING:** Twenty-two hospitals across five Nordic countries

**SYNOPSIS:** In this registry-based randomized trial, 2,201 adults undergoing CABG for acute coronary syndrome were assigned to ticagrelor plus aspirin or aspirin alone for one year. The primary composite outcome of death, myocardial infarction, stroke, or repeat revascularization occurred in 4.8% of the ticagrelor-plus-aspirin group versus 4.6% of the aspirin-alone group (hazard ratio [HR], 1.06; CI, 0.72 to 1.56), showing no ischemic benefit with dual therapy. Major bleeding occurred more frequently with ticagrelor plus aspirin (4.9% versus 2.0%; HR, 2.50; CI, 1.52-4.11), and severe dyspnea was also increased (18.2% versus 6.4%). Treatment adherence was lower in the ticagrelor group, with only 64% completing therapy at one year. These findings challenge current guideline recommendations for routine DAPT after CABG in acute coronary syndrome patients and suggest aspirin monotherapy may be safer without compromising efficacy.

**BOTTOM LINE:** Among patients undergoing CABG for acute coronary syndrome, ticagrelor plus aspirin did not improve cardiovascular outcomes compared with aspirin alone and significantly increased bleeding.

**CITATION:** Jeppsson A, et al. Ticagrelor and aspirin or aspirin alone after coronary surgery for acute coronary syndrome. *N Engl J Med*. 2025;393(23):2313-2323. doi: 10.1056/NEJMoa2508026.

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**By Christina Maguire, MD**

## 5 Pleural Effusions Requiring Drainage Are Associated with Lower Survival in Veterans with Cancer, CHF, or Pneumonia

**CLINICAL QUESTION:** Does the presence of a clinically significant pleural effusion have an impact on survival in patients with an admitting diagnosis of cancer, congestive heart failure (CHF), or pneumonia?

Dr. Maguire

**BACKGROUND:** Pleural effusions are a common complication of cancer, CHF, and pneumonia. They are associated with increased healthcare utilization and reduced quality of life. Studies on malignant and nonmalignant pleural effusions have shown poor survival, but these studies were limited by a small sample size or lack of control groups.

**STUDY DESIGN:** Retrospective cohort study

**SETTING:** U.S. Veterans Affairs hospitals between January 1, 2000, and December 31, 2020

**SYNOPSIS:** A total of 827,028 patients with a single admitting diagnosis of cancer, CHF, or pneumonia were identified. Patients were defined as having a clinically significant pleural effusion (PE) if they required pleural drainage. The remaining patients either had a pleural effusion not requiring drainage or no pleural effusion (NO-PE). There were 34,707 patients with PE and 792,217 with NO-PE; 104 patients were excluded for missing data. Median survival was significantly shorter among patients with PE across all diagnoses: cancer (PE, 1.33 years; CI, 1.27 to 1.39 versus NO-PE, 2.05 years; CI, 2.02 to 2.08), CHF (PE, 1.51 years; CI, 1.40 to 1.61 versus NO-PE, 3.23 years; CI, 3.21 to 3.26), and pneumonia (PE, 4.27 years; CI, 3.94 to 4.61 versus NO-PE, 5.11 years; CI, 5.06 to 5.15).

Limitations of the study include reliance on ICD and CPT coding to identify and classify patients, inability to adjust for disease severity, and a predominantly male cohort.

**BOTTOM LINE:** A pleural effusion requiring drainage is an independent marker of poor prognosis for patients with cancer, CHF, or pneumonia.

**CITATION:** Chopra A, et al. The impact of clinically significant pleural effusion on survival of US veterans with cancer, congestive heart fail-

ure, and pneumonia: the Veterans Administration Lung Effusion Study. *Chest*. 2025;168(2):531-538. doi: 10.1016/j.chest.2025.02.003.

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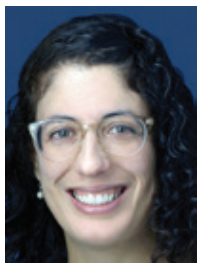
**By Eliana Bonifacino MD, MS**

## 6 Discontinuation of ACEIs/ARBs During AKI in Hospitalized Patients Decreases All-Cause Mortality



Dr. Bonifacino

**CLINICAL QUESTION:** Does discontinuation of angiotensin-converting enzyme inhibitors (ACEI) and angiotensin receptor blockers (ARBs) during an episode of acute kidney injury (AKI) improve clinical outcomes in hospitalized patients?

**BACKGROUND:** AKI is an extremely common condition in hospitalized patients and is associated with increased risk of mortality. Despite the widespread use of ACEIs and ARBs, there are no published studies that evaluate the survival effect of continuing these medications during AKI in hospitalized patients.

**STUDY DESIGN:** Multi-database cohort study using sequential target-trial emulation

**SETTING:** Twenty-eight regional medical centers in China (included in the CRDS database), and at Beth Israel Deaconess Medical Center in Boston (included in the MIMIC-IV database)

**SYNOPSIS:** Adult patients with hospital-acquired AKI and ACEI or ARB use at least 90 days prior were included, and discontinuation within two days of AKI was used for group stratification. The primary outcome was 30- and 180-day all-cause mortality, and the secondary outcome was AKI recovery.

In the 21,680-person trials from CRDS, the risk difference in 30-day and 180-day all-cause mortality was -1.55% (CI, -2.43% to -0.55%), and -3.12% (CI, -4.94% to -1.03%) for those who discontinued ACEIs or ARBs compared to those who continued them, respectively. In the 5,323-person trials from MIMIC-IV, the risk difference in 30-day and 180-day all-cause mortality for patients who discontinued was -0.79% (CI, -1.61% to -0.12%) and -1.98% (CI, -3.80% to -0.28%), respectively. These findings were consistent across subgroups, and the beneficial association of discontinuation was greatest among patients at highest mortality risk. For AKI recovery, the risk difference for those who discontinued was 8.92% (CI, 5.17% to 13.13%) in CRDS and 6.51% (CI, 3.02% to 9.60%) in MIMIC-IV. The benefits of discontinuation were consistent across sensitivity analyses.

**BOTTOM LINE:** Discontinuation of ACEIs or ARBs within the first two days of an episode of AKI in hospitalized patients was associated with decreased all-cause mortality.

**CITATION:** Nie S, et al. Discontinuation of renin-angiotensin system inhibitors during acute kidney injury episode and all-cause mortality: target trial emulation studies. *J Am Soc Nephrol*. 2025;36(12):2410-2420. doi: 10.1681/ASN.0000000775.

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**By Shaunak Kulkarni, MD**

## 7 Anti-Xa Monitoring During Therapeutic LMWH Use Leads to Frequent Dose Changes Without Clear Evidence of Improved Clinical Outcomes

Dr. Kulkarni

**CLINICAL QUESTION:** In patients receiving therapeutic low-molecular-weight heparin (LMWH), does anti-Xa monitoring with subsequent dose adjustment improve bleeding or thrombotic outcomes?

**BACKGROUND:** Anti-Xa monitoring is often used when therapeutic LMWH is prescribed to patients considered at higher risk for altered drug exposure, including those with renal impairment, obesity, pregnancy, advanced age, or cancer. However, practice varies widely, therapeutic target ranges are not standardized across LMWH products, and the relationship between anti-Xa levels and meaningful clinical outcomes has remained uncertain.

**STUDY DESIGN:** Systematic review

**SETTING:** Review of international clinical studies of therapeutic subcutaneous LMWH, identified through PubMed, with authors based in the Netherlands

**SYNOPSIS:** This systematic review included 48 randomized and observational studies involving 6,054 patients receiving therapeutic LMWH, most commonly enoxaparin, across high-risk groups including pregnancy, renal impairment, obesity, older age, and cancer. The intervention was anti-Xa monitoring with subsequent dose adjustment. The primary outcome was whether anti-Xa-guided dosing improved clinical outcomes compared with unmonitored dosing; only five studies directly addressed this question, and bleeding and recurrent thrombosis were similar between monitored and unmonitored groups. Key secondary outcomes were the relationship between anti-Xa levels and bleeding or thrombosis and the frequency of dose adjustment. Anti-Xa levels showed little consistent correlation with clinical events, although monitoring frequently prompted dose changes. Important limitations included substantial heterogeneity in patient populations, LMWH regimens, anti-Xa targets, and sampling methods, along with a uniformly high risk of bias. Overall, the findings support existing guideline uncertainty and do not support routine anti-Xa monitoring during therapeutic LMWH use.

**BOTTOM LINE:** Current evidence does not support routine anti-Xa monitoring to guide therapeutic LMWH dose adjustment, even in commonly monitored high-risk populations.

**CITATION:** Jaspers TCC, et al. A systematic review on anti-Xa monitoring in the therapeutic use of low-molecular-weight heparins. *J Thromb Haemost*. 2025;23(10):3033-3055. doi: 10.1016/j.jtha.2025.06.025.

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**By David Fink, MD**

## 8 Daily Fish-Oil Supplementation Reduced Serious Cardiovascular Events in Patients with End-Stage Kidney Disease Who Receive Maintenance Hemodialysis

Dr. Fink

**CLINICAL QUESTION:** Does daily supplementation with omega-3 polyunsaturated fatty acids reduce cardiovascular events in patients on maintenance hemodialysis?

**BACKGROUND:** Cardiovascular disease is the leading cause of death in hemodialysis patients. Established atherosclerotic therapies, such as statins, offer limited benefit in dialysis-dependent patients. Prior small randomized controlled trials and meta-analysis suggested a possible cardiovascular benefit of omega-3 supplementation, but the data were inconclusive.

**STUDY DESIGN:** Multicenter, double-blind, randomized, placebo-controlled trial (the PISCES trial)

**SETTING:** 26 hemodialysis centers in Canada and Australia

**SYNOPSIS:** A total of 1,228 adults on maintenance hemodialysis were randomized to daily fish oil (4 g of omega-3 polyunsaturated fatty acids: 1.6 g eicosapentaenoic acid and 0.8 g docosahexaenoic acid; n=610) or corn-oil placebo (n=618). Over 3.5 years of follow-up, the primary composite endpoint of all serious cardiovascular events (cardiac death, myocardial infarction (MI), stroke, peripheral vascular disease leading to amputation) occurred at a significantly lower rate in the fish-oil group (0.31 versus 0.61 per 1,000 patient-days; HR, 0.57; CI, 0.47 to 0.70). Benefits were consistent across secondary endpoints: cardiac death (HR, 0.55), MI (HR, 0.56), stroke (HR, 0.37), and first cardiovascular event or death from any cause (HR, 0.73). Adherence and adverse events were similar between groups. Limitations of the study include that less than 60% of participants were on statins, this study only included patients receiving maintenance hemodialysis, and the corn-oil placebo could theoretically have had biological effects. These findings provide randomized evidence for the cardiovascular benefit of fish oil supplementation in hemodialysis patients.

**BOTTOM LINE:** In hemodialysis patients, daily fish-oil supplementation with 1.6 g eicosapentaenoic acid and 0.8 g docosahexaenoic acid was shown to reduce serious cardiovascular events by 43%, representing a potentially important and accessible intervention for a population with few proven cardiovascular therapies.

**CITATION:** Lok CE, et al. Fish-oil supplementation and cardiovascular events in patients receiving hemodialysis. *N Engl J Med*. 2026;394(2):128-37. doi: 10.1056/NEJMoa2513032.

*Dr. Fink is an academic hospitalist in the division of hospital medicine and associate program director of the internal medicine residency program at MedStar Washington Hospital Center and an assistant professor of medicine at Georgetown University School of Medicine, both in Washington, D.C.*

By Soumya Narayan, MD

## 9 IV Iron Administration During Acute Infection Does Not Worsen Outcomes and Is Associated with Improved Survival and Hemoglobin Recovery

**CLINICAL QUESTION:** In hospitalized adults with iron-deficiency anemia (IDA) and concurrent acute infection, does IV iron administration improve clinical outcomes or worsen the infection?

Dr. Narayan

**BACKGROUND:** Iron-deficiency anemia affects up to 40% of hospitalized patients and is associated with worse outcomes in both pneumonia and sepsis. IV iron has advantages over oral therapy for iron repletion: it avoids gastrointestinal (GI) side effects and corrects hemoglobin more quickly, a meaningful advantage when rapid correction is needed or GI absorption is unreliable. Yet many clinicians avoid IV iron during active infection on the theory that iron fuels bacterial growth, potentially worsening the infection. A 2021 meta-analysis raised concerns about infection risk with IV iron, but more recent studies haven't confirmed that signal, and large real-world data across common inpatient infections have been sparse.

**STUDY DESIGN:** Retrospective, propensity-matched cohort study

**SETTING:** 111 U.S. healthcare organizations in the TriNetX Research Network; January 2000 to June 2025

**SYNOPSIS:** This study used TriNetX, a federated database of 111 U.S. healthcare organizations, to identify 339,145 adults with concurrent iron-deficiency anemia (IDA) and acute infection, specifically methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, pneumonia, urinary tract infection (UTI), colitis, or cellulitis, who had received antibiotics within two days of diagnosis. Patients were divided by whether they received IV iron within seven days of the combined diagnosis and matched 1:1 on demographics, comorbidities, and laboratory values within each infection cohort; matched cohorts ranged from 4,432 to 19,281 pairs per infection type. Fourteen- and 90-day survival was significantly higher with IV iron across all five cohorts (90-day HR, 0.66 for pneumonia, 0.60 for colitis). Hemoglobin improved more at 60 to 90 days in the IV iron group across all five infection types; transfusion days were also lower in four of five cohorts. Length of stay was slightly longer in the MRSA bacteremia and UTI groups. The study is limited by its observational design, IDA defined by diagnosis code rather than laboratory criteria, IV iron exposure without dose information, infusion adverse events not tracked, and possible residual confounding.

**BOTTOM LINE:** IV iron given during active infection is associated with improved survival and hemoglobin recovery across five common inpatient infection types, supporting its use even when infection is being treated concurrently.

**CITATION:** Sohail H, et al. A retrospective, real-world study of IV iron use to treat iron deficiency anemia during acute infection. *Blood*. 2026;147(21):2518-2529. doi: 10.1182/blood.2025031965.

*Dr. Narayan is an academic hospitalist in the division of hospital medicine at MedStar Washington Hospital Center in Washington, D.C.* ■

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# The 2025 ATS CAP Update

## Four recommendations and a formal IDSA dissent

**By Naveed Choudry, MD, FHM, FACP, Nazifa Sheikh, Saad Mohammad, MD, FACP, and Shams Quazi, MD, MS, FACP**

Community-acquired pneumonia (CAP) remains one of the most common reasons adults are admitted to the hospital in the U.S., accounting for more than 1.4 million emergency department visits, 740,000 hospitalizations, and 41,000 deaths annually.[1]

In July 2025, the American Thoracic Society (ATS) released a focused update to the comprehensive 2019 joint ATS and Infectious Diseases Society of America (IDSA) CAP guideline, updating guidance in four areas where new evidence has emerged since 2019: lung ultrasound as a diagnostic alternative to chest radiography, the management of CAP when respiratory viral testing is positive, shorter antibiotic duration in clinically stable patients, and the role of systemic corticosteroids in non-severe versus severe CAP.[2]

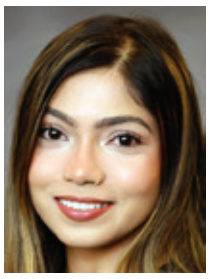
The IDSA declined to co-endorse the final guideline, the first major divergence between the two societies on CAP guidance in more than two decades. The disagreement centers on a single recommendation: whether hospitalized patients with CAP and a positive respiratory viral test should routinely receive empiric antibiotics in the absence of any comparative supporting evidence. That split reflects a substantive disagreement over what the available evidence justifies, and this review addresses each recommendation with attention to both that evidence and the inter-society disagreement that every hospitalist managing CAP will need to weigh.

### LUS as a Diagnostic Alternative to Chest Radiography

For adults with suspected CAP, the 2025 ATS guideline endorses lung ultrasound (LUS) as an acceptable diagnostic alternative to chest radiography where appropriate clinical expertise exists. A meta-analysis of 11 studies using computed tomography as the reference standard found that LUS outperformed chest radiography on both sensitivity (95% versus 70%) and specificity (75% versus 55%), though evidence quality was rated low due to inconsistency across studies, yielding a conditional recommendation.[3]

For hospitalists with point-of-care ultrasound (POCUS) training, LUS is appropriate when chest radiography is unavailable or when computed tomography carries undue risk. The guideline defines adequate expertise as formal credentialing, standardized imaging protocols, and image archiving equivalent to radiology reporting standards. LUS is not endorsed for routine substitution for chest radiography without institutional credentialing pathways. Obesity, wounds, scars, and drains may limit accuracy, and LUS cannot evaluate alternative diagnoses such as pulmonary embolism or malignancy.

Dr. Choudry



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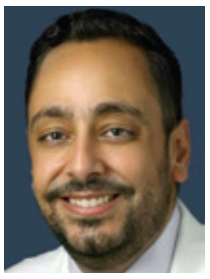

Dr. Mohammad

Dr. Quazi

*Dr. Choudry is associate division chief of hospital medicine and an academic hospitalist at MedStar Washington Hospital Center and an assistant professor of medicine at Georgetown University School of Medicine, both in Washington, D.C. Ms. Sheikh is a third-year medical student at the University of New England College of Osteopathic Medicine in Biddeford, Maine. Dr. Mohammad is associate division chief of hospital medicine at MedStar Southern Maryland Hospital Center in Clinton, Md., and assistant professor of medicine at Georgetown University School of Medicine in Washington, D.C. Dr. Quazi is the physician executive director of hospital medicine at MedStar Health North, and chair of the department of medicine at MedStar Good Samaritan Hospital and MedStar Union Memorial Hospital in Baltimore.*

## Empiric Antibacterial Therapy When Respiratory Virus Is Detected

For adult outpatients without comorbidities, the guideline suggests withholding empiric antibiotics when a respiratory virus is detected, given the low risk of serious outcomes if treatment is deferred and the established harms of unnecessary antibiotic exposure. For outpatients with comorbidities, empiric antibiotics are suggested given the higher risk of serious outcomes from untreated bacterial co-infection. For adult inpatients with non-severe CAP and a positive respiratory virus test, the guideline suggests empiric antibiotics. For inpatients with severe CAP, empiric antibiotics are suggested regardless of viral detection. All four recommendations are conditional, based on very low-quality evidence.[3]

The evidentiary problem is straightforward: the committee identified no comparative studies for the antibiotic versus no antibiotic question in viral CAP, yet issued a treat-by-default recommendation for inpatients, relying on expert consensus rather than comparative data. IDSA declined to co-endorse the guideline specifically on this point, and four IDSA members published a formal dissent in December 2025.[4] Their core argument was that adverse events occur in up to one-quarter of hospitalized patients receiving antibiotics, and that treating viral-positive non-severe inpatients empirically conflicts with established antimicrobial stewardship principles.[5]

In the absence of comparative evidence, the decision falls to clinical judgment. Normal inflammatory markers and a patchy bilateral infiltrate pattern favor withholding antibiotics. Purulent sputum, lobar consolidation, rising C-reactive protein, high illness severity, or significant comorbidities favor treatment.

## Antibiotic Duration for CAP

For adult inpatients with non-severe CAP who reach clinical stability, the guideline now suggests fewer than five days of antibiotics, with a minimum of three days, rather than the five-or-more-day standard from the 2019 guidance. This is a conditional recommendation supported by low-quality evidence. For inpatients with severe CAP reaching clinical stability, five or more days remains the standard, a strong recommendation, though the underlying evidence remains low quality.

Clinical stability is defined as afebrile, heart rate less than 100 beats per minute, respiratory rate less than 24 breaths per minute, systolic blood pressure of 90 mmHg or greater, oxygen saturation of 90% or greater on room air or at baseline oxygen requirement, and normal mentation.

### Key Points

- LUS is an acceptable alternative to chest radiography if institutional credentialing and standardized protocols are in place.
- A positive respiratory virus test leaves the antibiotic question open in hospitalized CAP. The 2025 ATS guideline suggests treating; the IDSA disagrees for non-severe disease. Clinical judgment, inflammatory markers, and illness severity should guide the decision.
- For stable non-severe inpatients, three days of antibiotics is now recommended. Exceptions apply for resistant or atypical organisms and complications, including empyema, bacteremia, or abscess.
- Corticosteroids, given early, are supported in severe CAP when inflammatory markers are elevated, but should not be used in non-severe disease or influenza-associated pneumonia.

The key supporting trial is the PTC trial, a double-blind randomized controlled trial demonstrating non-inferiority of discontinuing beta-lactam treatment after three days compared to eight-day treatment in non-critically ill hospitalized CAP patients.[6]

Where the 2019 guideline set five days as a minimum, this update brings that minimum down to three days for stable non-severe patients. The onus shifts to justifying continuation, not discontinuation. Exceptions include *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Legionella pneumophila*, and other intracellular microorganisms, and complications including empyema, abscess, bacteremia, extrapulmonary infection, or structural lung disease. Shorter treatment courses also reduce adverse drug events, *Clostridioides difficile* risk, and the selective pressure that drives antimicrobial resistance.

## Systemic Corticosteroids for Hospitalized CAP

Systemic corticosteroids are not recommended in non-severe CAP, a strong recommendation despite low-quality evidence, anchored in the risk of harm (primarily hyperglycemia) in patients for whom the evidence shows no benefit. In severe CAP, corticosteroids are conditionally suggested, except in patients with influenza-associated pneumonia, where observational data suggest corticosteroids may worsen outcomes.

The IDSA-ATS severity criteria define severe CAP as the presence of one major criterion (need for mechanical ventilation or vasopressors) or three or more minor criteria, including tachypnea, hypoxemia, multilobar disease, encephalopathy, uremia, leukopenia, thrombocytopenia, hypothermia, and hypotension requiring aggressive fluid resuscitation.[2] Corticosteroids are most appropriate when initiated within 24 hours of meeting severity criteria and when inflammatory markers are elevated, particularly C-reactive protein, which has been identified as a predictor of corticosteroid benefit in an individual patient data meta-analysis of eight randomized trials.[7] Other factors favoring corticosteroid use include both intensive care unit admission and respiratory failure with a $PaO_2/FiO_2$ ratio below 300.

Pneumonia Severity Index and CURB-65 (confusion, urea, respiratory rate, blood pressure and age at least 65) scores were not designed to determine intensive care unit treatment and do not define severe CAP for purposes of this guideline. Severity classification determines corticosteroid eligibility, antibiotic duration, and the extent of microbiologic evaluation.

## Critique

The guideline was developed by a multidisciplinary panel of 18 experts representing pulmonology, infectious disease, internal medicine, critical care, hospital medicine, emergency medicine, and evidence synthesis. Systematic reviews were conducted from January 1946 through March 2023, with updates in November 2024 and February 2025, applying the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology.

The formal IDSA dissent, published in December 2025 by four IDSA committee members, gives credit to the shortened antibiotic duration recommendations as a meaningful contribution, but questions both the evidence and the process behind the viral-positive antibiotic recommendation.[4]

The evidentiary problem is straightforward: the committee identified no comparative studies for the antibiotic versus no-antibiotic question in viral CAP, yet issued a treat-by-default recommendation. GRADE has no established framework for rating noncomparative evidence, and the dissent argues that issuing a recommendation without that foundation was hard to defend.

The dissent raises three concerns about how the process unfolded. The critical vote took place at a hybrid meeting at the ATS annual International Conference in Washington, D.C. in May 2023, where most ATS representatives attended in person, and most IDSA representatives joined remotely, creating unequal conditions for in-person and remote participants. The nonvoting methodologists were drawn predominantly from the ATS guideline methodology training program, with the lead methodologist also representing ATS. The third concern: without trial data, the committee lacked a structured approach for evaluating the observational evidence it relied on instead.

The dissent makes clear that the concern is not procedural alone: the committee recommended routine antibiotic treatment in the absence of any supporting comparative evidence, in a clinical context where antibiotic harms are well established. Notably, all 15 independent peer reviewers voiced concern about this recommendation, yet the committee opted to maintain it. The guideline was not approved by the IDSA, the first time in over two decades that the two societies have parted ways on CAP management. Resolving this disagreement will require a randomized trial of antibiotics versus no antibiotics in hospitalized patients with confirmed viral pneumonia.

## Bottom Line

The 2025 ATS update addresses four areas of CAP management relevant to hospitalist practice: lung ultrasound as a diagnostic alternative to chest radiography, antibiotic use in virus positive inpatients, shortened antibiotic duration in stable non-severe patients, and corticosteroids in severe CAP. The update departs from 2019 guidance on each of these points, and on the virus-positive antibiotic question, it parts ways with IDSA as well. ■

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# Women Hospitalists Shaping the Future of Leadership

**By Karen Appold**

Leaders provide a clear vision, empower others, and direct and motivate their teams to achieve common goals.

And although more women work in the medical field than ever before, men dominate institutional leadership roles.[1] Further, women face gaps in pay, promotion, representation, and recognition.[2]

In honor of September being Women in Medicine Month, six members of SHM's 2026 Leadership Academy faculty reflect on their journeys to leadership and share their insights on what it takes to be a leader and how to overcome the inequities that women face.

## Rachel Cyrus, MD, SFHM

Dr. Cyrus, associate chief medical officer and clinical practice director in the division of hospital medicine at Northwestern Memorial Hospital, an urban academic medical center with more than 900 beds in Chicago, has built and refined her leadership skillset by attending conferences, through self-directed learning, and by regularly reading books on leadership. "Like any skill, it requires study and consistent practice," she said.

Dr. Cyrus

"Many opportunities to grow and demonstrate leadership come through participating in committees and actively working to solve problems," she said. "Leadership often begins before having a formal title."

Professionalism in interactions and in forming relationships is also key. "In complex healthcare systems, meaningful change requires collaboration and teamwork," Dr. Cyrus said. "Your reputation for how you work with others can significantly influence future opportunities."

Many leadership roles are learned on the job. "I think women may hesitate to apply for a position because they don't feel fully prepared," she said. "In reality, most candidates don't meet all the criteria listed in a job description. Remaining skills can be developed with experience."

Someone once said to her, "First, you lead your team; then, you stand next to them; and ultimately, your goal is to develop new leaders and stand behind them." This philosophy resonated with her.

Serving as the chief of staff for Northwestern's medical staff has been one of her most rewarding leadership roles. She focused on ensuring safe and high-quality physician practices and identified and supported struggling physicians, including those facing health-related challenges.

For her, focusing on a smaller number of priorities at a time and executing them well is more effective than trying to do too much at once.

Being able to fully disconnect periodically is also incredibly important. "It not only helps prevent burnout, but I also return to work with renewed energy and perspective," she said.

Dr. Cyrus believes that women remain a minority in many top healthcare leadership positions because they may be more prone to experiencing imposter syndrome due to perceived gaps in experience and feeling unprepared for leadership roles.

Further, women take on a disproportionate share of childcare and household responsibilities. This added responsibility may make some women more hesitant to pursue leadership roles that require additional time and energy.

To help address these challenges, organizations can create more flexible leadership structures that accommodate responsibilities outside of work. Open calls for leadership positions can help reduce the tendency to rely on informal networks or select individuals who resemble current leaders.

Dr. Cyrus defines success in leadership as creating a synergy between achieving hospital, division, and provider goals and empowering leadership teams and clinical providers. "It's important to not only meet key organizational targets but also to ensure that individuals delivering care feel supported, engaged, and heard," she said.

## Teresa Cornelius, MD, MPH

For Dr. Cornelius, leadership was never part of a carefully crafted career plan. Instead, her path emerged through a commitment to meaningful clinical work, a willingness to embrace unexpected opportunities, and the support of mentors who recognized her potential before she fully saw it herself.

Dr. Cornelius

An assistant clinical professor in hospital medicine at the University of Alabama at Birmingham (UAB) and Children's of Alabama, Dr. Cornelius currently serves as vice chief of clinical operations and nocturnist lead for UAB Hospital Medicine, all in Birmingham, Ala.

Her leadership journey began a few years after residency when she was asked to serve as nocturnist lead. "I was hesitant to take on additional responsibilities so early in my career and while raising three young children, but working nights gave me a unique perspective that I felt was important to represent in leadership discussions," she said.

That opportunity opened the door to further leadership development, including participation in the SHM Leadership Academy. The experience broadened her understanding of organizational dynamics, strengthened her leadership skills, and connected her with mentors and sponsors who continue to influence her growth.

A formative exercise during the academy challenged participants to develop their own personal mission, vision, and set of core values. "That exercise remains foundational to my leadership approach," she said. "It provides a framework for evaluating opportunities, making difficult decisions, and ensuring that my actions remain aligned with the type of leader and person I aspire to be."

Like many leaders, Dr. Cornelius struggles with self-doubt. When she moved into the vice chief role, she considered herself a relatively new leader. "Self-doubt often appears when I'm stretching beyond my comfort zone," she said. "I've learned to recognize that discomfort is not a sign that I'm not qualified, but rather a prerequisite for growth and learning." Coaching has been pivotal in that mindset shift and in her overall personal and professional development.

Dr. Cornelius describes her leadership style as calm, grounded, collaborative, and mission-driven. Central to her approach is the belief that leaders need a clear sense of purpose.

Dr. Cornelius credits supportive colleagues, flexible scheduling, and a culture that recognizes life outside of work as essential to sustaining both personal and professional fulfillment. Those experiences have fueled her passion for mentoring and coaching other women in health care as they navigate leadership aspirations, family responsibilities, and pursuing meaningful careers.

Her advice for aspiring leaders is simple: leadership is not synonymous with a title. Influence, relationships, and service can begin long before a formal leadership role. "Invest in understanding yourself, remain open to opportunities, and intentionally cultivate relationships," she said. "Some of my most important opportunities arose from others seeing potential in me."

For Dr. Cornelius, leadership is ultimately about helping people feel seen, valued, and connected to a shared purpose—an approach that continues to shape both her career and the teams she serves.

## Eliza Holland, MD

As a summer camp counselor during her college years, Dr. Holland, a pediatric hospitalist at the University of Virginia (UVA) Children's Hospital, an academic hospital in Charlottesville, Va., learned teamwork, resilience, creative problem solving, and patience.

Dr. Holland

Her formal leadership training started with a yearlong community leadership class that taught her how to think critically about a problem's source, connect with grassroots organizations and local leaders, and engage with government representatives.

As a leader, she believes that when you identify a problem, you need to find a solution. "I use this technique with senior residents on rounds to improve autonomy and decision-making skills," she said.

Dr. Holland sees a successful leader as one who can lead by consensus, takes the effort to know their team members and their strengths, can advocate for their team, holds others as well as themselves to high standards, isn't afraid to admit when they're wrong, and is approachable.

She feels fortunate to have worked part-time for most of her career, which provides work-life balance. She is now full-time and has combined clinical care with other pursuits, such as undergraduate medical education, quality improvement projects within the medical center, and resident coaching.

The toughest challenge on her leadership journey has been taking on more than she should. "I'm trying to find other people to lead some projects and am learning how to manage my expectations with people who commit to projects but never contribute," she said.

Some of her current leadership roles include: liaison with SHM's Annual Conference Committee for the pediatric track at Converge; director of the UVA trainee healthcare leadership program; and co-chair of the Virginia Neonatal Perinatal Collaborative's evidence-based dyad care–substance use disorder statewide project.

This past year, she started a leadership track specifically for UVA trainees who were identified as emerging leaders by their program directors. Almost 40 senior residents and fellows participated in a longitudinal course with eight monthly sessions on topics such as leadership styles, negotiating, advocacy, budgeting, and health care policy. The trainees also completed group projects that addressed issues they identified within the health system.

She thinks aspiring leaders should invest their energy into the path that makes the most sense for them. "Seek out mentors who are involved in the projects that align with your interests," she said. "Offer to lead the next sponsored national quality improvement project that enters your mailbox. Join smaller committees through professional organizations to widen your networking circle. Take a course through SHM's Leadership Academy, which is also a great way to meet new people outside of your institution."

## Academy Aims to Inspire Tomorrow's Leaders

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This year's Academy will be held in Scottsdale, Ariz., from Oct. 19 to Oct. 22. Registration is open at shmleadershipacademy.org. ■

### Maliha Iqbal, MD, SFHM, CHCQM-PHYADV

Dr. Iqbal, an adult hospitalist and physician advisor in the utilization management department at Beacon Health System, a nonprofit healthcare organization based in South Bend, Ind., said her path to a leadership role was shaped by curiosity, necessity, and a genuine desire to improve the systems around her.

Dr. Iqbal

She trained in India and completed residency in the U.S.—building a foundation in a system entirely new to her while navigating cultural and institutional learning curves.

"I learned to adapt and pay close attention to how systems function and where they fail," she said. "I was pushed to understand hospital medicine from every angle: bedside care, clinical documentation integrity, utilization management, and leadership development."

The breadth of her training was intentional. "You can't lead effectively without understanding how clinical decisions intersect with documentation, reimbursement, and operations simultaneously," she said.

As the medical director of Beacon's clinical documentation integrity program, Dr. Iqbal had to translate across clinical medicine, coding, and hospital administration—disciplines that don't naturally speak the same language. That work taught her that the hospitalist's greatest asset is seeing the whole patient, the whole stay, and the whole system simultaneously.

"Leadership is often about being the translator in the room—converting clinical reality into language that administrators, payers, and regulators can act on," she said.

Dr. Iqbal, who also chairs Beacon Health System's utilization management committee and is the secretary of SHM's Indiana Chapter, went from learning about leadership to cultivating it in others. "That's the role I value most, because investing in the next generation is where the work actually multiplies," she said.

Dr. Iqbal believes in deliberate sponsorship—nominating colleagues for opportunities they wouldn't have sought themselves, because those who most deserve it are rarely the ones self-promoting. She co-founded the Beacon Women Physician Committee because individual mentorship cannot substitute for changing the system that makes mentorship necessary.

When advising a young hospitalist aspiring to become a leader, Dr. Iqbal recommended starting before feeling ready, because the readiness you're waiting for is largely a myth. "Leadership competence develops through doing, not through preparing to do," she said. "Take the committee seat. Volunteer for the quality project no one else wants. Say 'yes' to the stretch opportunity and figure it out."

She also emphasized investing in one's professional community early. "The relationships I have built through SHM have been among the most sustaining resources of my career," she said. "These colleagues nominated me for opportunities I didn't know I was eligible for, called when opportunities opened, and gave feedback I couldn't have gotten elsewhere."

"The generation of women entering hospital medicine today is extraordinary; they're better prepared, more aware of structural barriers, and far less willing to absorb inequity quietly," Dr. Iqbal said. "They aren't waiting to be invited—they're building the table. My job is to make sure it's large enough for all of them."

### Kheyandra D. Lewis, MD, MEd

Leadership centers on developing others and helping them to recognize and maximize their unique strengths, said Dr. Lewis, vice chair of faculty and professional development in the department of pediatrics, associate program director of the pediatric residency program, and associate professor of pediatrics at Drexel University College of Medicine's St. Christopher's Hospital for Children, an academic urban pediatric hospital with 188 beds in Philadelphia.

Dr. Lewis

"I lead through active listening, meaningful feedback, and relationship-building," said Dr. Lewis, who is also the director of the hospital's simulation center. "I believe people are most successful when they feel valued, heard, and empowered to contribute in ways that align with their talents and aspirations."

As a female leader, Dr. Lewis speaks with purpose and confidence to ensure that her voice is heard and that her contributions are recognized. "It's also equally important to amplify other women's voices and ensure that their ideas are acknowledged," she said.

For her as a woman of color, supporting emerging leaders, particularly women and individuals from underrepresented backgrounds, is deeply important.

"I advocate in both visible and behind-the-scenes ways," she said. This includes creating opportunities for colleagues to lead projects, connecting them with mentors and sponsors, amplifying their contributions in meetings, and encouraging them to pursue opportunities they may not feel qualified for.

Dr. Lewis sees a growing need for intentional sponsorship for women and those underrepresented in medicine, particularly at the mid-career point when many leadership opportunities emerge.

She maintains that women frequently bring valuable perspectives on balancing competing priorities, navigating organizational dynamics, and leading through influence rather than authority alone.

She believes that organizations should create greater transparency around leadership selection processes, provide equitable access to sponsorship and mentorship, and ensure that leadership opportunities are purposefully developed rather than informally assigned. "Addressing these structural barriers is essential if we want leadership representation to better reflect the workforce," she said.

Dr. Lewis believes that imposter feelings can emerge when stepping into new responsibilities or unfamiliar environments. "That's often a sign that I'm stretching outside of my comfort zone, which is where growth occurs," she said.

She strives not to compare herself to others and instead to reflect on the value she contributes. When self-doubt creeps in, she reminds herself of her experiences, her perspectives, and her impact on others. She also seeks objective feedback from trusted mentors and colleagues.

One practice she intentionally developed is learning to accept praise and positive feedback rather than immediately dismissing it. She acknowledges that missteps can arise and recognizes that learning opportunities can build confidence and resilience to navigate future challenges.

Dr. Lewis's advice to young hospitalists is to intentionally invest in their leadership development. "Strengthen your leadership capabilities through reading, formal training, and experiential learning," she said. "Look beyond medical resources and explore leadership principles from other industries, as many lessons are universally applicable."

### Rachel Thompson, MD, MPH, MHM, FACP

As one of the first inpatient-based hospitalists at her health system more than 20 years ago, Dr. Thompson saw an immediate demand for program development, interpersonal and interdepartmental relationship building, strong communication, change management, emotional intelligence, negotiation strategy, and alignment with hospital priorities. "For me, it was sink or swim, and I did a bit of both at first," she recalled.

Dr. Thompson

Today, Dr. Thompson serves as the chief medical officer for Core Clinical Partners in Seattle, an acute-care practice management group focused on improving care.

A key event in her leadership development was attending SHM's Leadership Academy. It provided a solid foundation and common language for process improvement and change management strategies.

Ten years into her leadership role, she pursued a Master of Public Health degree while continuing to work. "I wanted to improve my data skills; it also helped me to expand my understanding of global issues in healthcare," she said.

Dr. Thompson compares her career to a leaf that fell into a river. "Day by day I ride the current, learning as I go, flexing with the ripples, bumping into rocks, and bouncing around them," she said. "Through it all, my constant is a focus on caring for people."

As a woman and leader in medicine, some of the boulders in the river may have been bigger or harder to find ways to glide around, she recalled. "But in the moment, it never quite struck me—maybe because I'm more than a bit stubborn and happy to fail, fail again, and fail better—knowing in the end that there will be better outcomes," Dr. Thompson said.

Dr. Thompson believes it's important that clinicians represent the diversity of their communities and that an evolution is occurring. First, women became medical students, and now doctors, and next, leaders.

In regard to measuring success, Dr. Thompson's top key metric is clinician engagement. "All other metrics tie back to this—strong clinician teams, solid clinical outcomes, and reliable multidisciplinary relationships," she said. "Happy and engaged clinicians will naturally drive for the best care and collaborate with partners across health systems."

Dr. Thompson is most proud of the lives she has touched and especially the people who took an extra step because they knew she had their backs. "I still remember their names, faces, and stories," she said.

For any young hospitalist aspiring to become a leader, she would say, "Go for it! This will be the most rewarding part of your career journey. Embrace the challenge. Find supportive people and lean on them."

Regarding the recipe of skills and qualities that are necessary to lead, Dr. Thompson recommends a deep commitment to curiosity, a large helping of compassion, and a dash of just plain stubbornness.

"Be willing to be labeled bossy—that means you're confident and strong," she said. "Be willing to be labeled emotional—that means you care and are invested. Look for peers outside of your system, which will provide you with tremendous perspective." ■

*Karen Appold is an award-winning journalist based in Lehigh Valley, Pa.*

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Quality

# Demystifying Performance Measures for Hospitalists: Principles for Attribution

**By Chris Bruti, MD, MPH, SFHM, and Kathryn Humes, MD, FACP, FHM**

In last month's issue of *The Hospitalist*, members of SHM's Performance Measurement and Reporting Committee wrote about attribution challenges. Building on that article, the use of quality measures to improve overall hospital or health system performance needs to be deliberate and smartly executed. Our colleagues discussed issues with attribution, including "gaming" and burnout. Gaming occurs when hospitalists are incentivized to prioritize improving the metrics attributed to them, potentially at the expense of actual patient-care quality that may not be sufficiently rewarded within the hospitalist group or healthcare system. Additionally, the pressures of inappropriate metrics and attribution can lead to feelings of helplessness, disillusionment, and moral injury for practitioners.

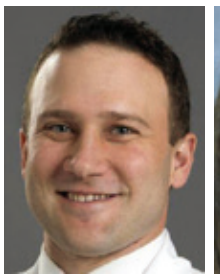
Given these challenges, hospital medicine groups need metrics that are fair, clinically meaningful, and clear enough to guide improvement rather than simply track performance. In this article, we discuss how to attribute quality metrics successfully in hospital medicine and offer a practical blueprint for choosing measures, assigning responsibility, and revising attribution methods as care models evolve.

## Principles of Attribution

Even if imperfect, hospitalists need individualized feedback and a clear understanding of the quality of care they provide. Attribution decisions should begin by asking whether a metric is best assigned to an individual hospitalist, shared among clinicians involved in the hospitalization, or evaluated at the group level when individual control is limited. Multiple studies have evaluated methodologies to improve attribution, and while all have flaws, some show higher fidelity than others. Below, we offer principles to help hospital medicine leaders select attribution methods that are specific enough to be fair, practical enough to sustain, and meaningful enough to improve care.

### **Principle 1:** A hospitalist's metric should be as specific to their individual performance as possible.

Typically, multiple hospitalists care for patients during a hospital stay, complicating individual attribution. One way to address this issue is to evaluate the performance metrics of hospitalists based solely on cases where only one hospitalist was responsible for the patient's care. However, doing so would considerably reduce the sample size (especially for longer hospitalizations), which would significantly limit the effectiveness of the metric. A study by Carmichael et al. compared five different methodologies for attribution of length of stay (LOS) to individual hospitalists.[1] They found that their new metric was the best performing of the five in the sensitivity analysis. It is named "Intermountain Method of Provider Attributed Quality (IMPAQ)" and it attributes the patient's LOS to the discharging clinician only if they oversaw more than 30% of the encounter. This performed better than a more traditional (standard) method, which attributes LOS to the discharging physician even if they cared for the patient for a very short amount of time. For hospitalist leaders, the practical lesson is to reserve individual attribution for measures where the clinician had meaningful influence and to use group-based attribution when responsibility is diffuse. Metrics of interest to a hospitalist group or health system that cannot reliably be attributed to an individual should use group-based attribution strategies as much as possible.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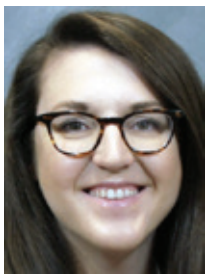
Dr. Humes

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### **Principle 2:** Appropriate data sources should be selected for a metric to ensure attribution fidelity.

Metrics are often attributed to hospitalists even when a large part of the metric applied is outside of the hospitalist's control. A 2017 study used billing data for attribution, linking patients' metrics to the billing physician.[2] They chose different methodologies of attribution depending on the metric and found meaningful discrepancies in physicians' scores relative to

their peers. This study attributed admission-type data (venous thromboembolism prophylaxis order) to the hospitalist who billed for the history and physical while attributing the discharge-type data (discharge time, readmissions, etc.) to the hospitalist billing the discharge. They attributed shared credit according to the percentage of bills for other metrics associated with the whole hospitalization (LOS, patient satisfaction, etc.). This methodology improved attribution fidelity, tying the metric studied to the most likely responsible party. The key implication is that the data source should match the clinical moment being measured, so admission, discharge, and whole-stay metrics are not all assigned using the same blunt method.

### **Principle 3:** Hospitalists should create and own the attribution and subsequent evaluation process.

Most important to the process of selecting and implementing a quality metric program within your group is buy-in from frontline hospitalists. Clinicians need to know that what matters to them and their patients also matters to hospital leadership. In one such example, Patel and colleagues surveyed hospitalists and conducted "design sessions" and pilots to create a dashboard of hospital medicine metrics.[3] They found that hospitalists "preferred collaboration over competition and internal motivation over external incentives," and hospitalists voted for clinical and patient-centered metrics as the most valuable and likely to change behavior. They also highlighted the importance of choosing metrics that spoke to challenges at their own institution and that hospitalists could actually control, further supporting Principle 2. In practice, attribution systems are more likely to change behavior when hospitalists help define the measures, understand how the scores are generated, and see a credible path from feedback to improvement.

### **Principle 4:** There must be ongoing monitoring of metrics and attribution strategy, including monitoring of balancing measures.

A major issue in choosing metrics and attribution is that, often, the measure does not positively impact the outcome in question. Our colleagues use the example of LOS and discharge before noon (DBN). Studies have shown no correlation or even a negative correlation between DBN and LOS.[4] Even LOS-reduction metrics can be harmful if too aggressive. Many hospital medicine groups still track the DBN metric despite these data. The reasoning for this is likely complex, but among these is the issue that a measure that positively impacts LOS has been elusive and difficult to monitor regularly. Monitoring any metric may require time, people, money, and a robust electronic health record. Any hospital deciding to implement a quality-based program for incentive or other performance evaluation needs to have a sound monitoring system prior to implementation. Leaders should also identify balancing measures in advance so that improvement in one metric does not unintentionally worsen another outcome, such as readmissions, patient experience, or clinician workload.

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## Conclusion

We posit that no hospitalist wrote about reducing LOS in their personal statement for medical school. The ongoing challenge for leaders in hospital medicine is to connect measurement to the clinical "why" that motivates hospitalists: improving care for the patients in front of them.

Without consideration of both the frontline practitioner and the health system in which they operate, quality metrics can feel punitive and lead to burnout, moral injury, dissatisfaction with work, and attrition. But quality-based evaluation will likely continue to expand in hospital medicine, making it even more important to choose measures that identify and spread high-quality care rather than reward documentation artifacts or arbitrary targets.

Data suggest that more experienced hospitalists have better quality outcomes.[5,6] When determining which metrics matter for one's own group of hospitalists, it may be useful to focus on what those experienced or otherwise high-functioning clinicians do very well. Sharing these best practices through educational initiatives may provide a "free" resource for many hospitalist groups to improve quality without creating a culture of unfriendly competition or questionable incentive practices. In fact, a study by Yurso et al. showed improvement in quality metrics through the implementation of educational modules, which could also be coupled with grand rounds series, mentorship programs, and other educational interventions.[7]

In conclusion, we recommend meaningful quality measures that are focused on the individual organization's goals and environment and that are created by hospitalists for hospitalists. Any metric considered should involve outcomes or processes within the hospitalist's meaningful control, be attributed at the right level—individual, shared, or group-based—and be designed to improve care rather than track performance for its own sake. Hospital medicine groups should use the principles outlined above to choose the metric and attribution method, monitor the strategy over time, and adjust or abandon it when the measure no longer advances fair and clinically meaningful improvement.

*The authors are members of SHM's Performance Measurement and Reporting Committee, which created this series to explore quality measures common in hospital medicine.* ■

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# The Balancing Act of Pain Management

Managing pain requires a combination of strategies for hospitalists and spurs a desire for more options

**By Vanessa Caceres**

Hospitalists continue to grapple with the best multimodal way to control patient pain while maximizing the use of medications and other available choices.

"Pain is uniquely personal and requires engagement of both the physician's heart and mind to provide an individualized, holistic plan of care," said Lauren Spaeth, DO, an internal medicine chief resident and hospitalist with Ohio Health Riverside Methodist Hospital in Columbus, Ohio. "If at first your plan doesn't succeed, persist, and try again."

Dr. Spaeth

*The Hospitalist* spoke with several hospitalists to discover recent advances in pain medicine and what challenges remain.

## Recent Advances

A focus on reducing opioid misuse has changed the pain management focus for hospitalists and other physicians.

"The standard of care in- and outpatient has been a more aggressive multimodal pain approach, which is great," said Will S. Jaffee, DO, a hospitalist with MaineHealth Maine Medical Center Portland in Portland, Maine, and assistant professor of clinical medicine at Tufts University School of Medicine in Boston.

Dr. Jaffee

This includes a greater emphasis on physical therapy, cognitive behavioral therapy, nonsteroidal anti-inflammatory drugs (NSAIDs), inpatient nerve blocks, and opioids when needed.

Suzetrigine (JOURNAVX), approved by the U.S. Food and Drug Administration in 2025, was the first new class of pain medicine approved in more than 20 years, says Shoshana J. Herzig, MD, MPH, associate chief of hospital medicine for academic affairs at Beth Israel Deaconess Medical Center, associate professor of medicine at Harvard Medical School, and co-director of the Prescribing Wisely Lab, all in Boston.

Dr. Herzig

It targets a pain-signaling pathway involving sodium channels in the peripheral nervous system, helping to avoid addictive potential and central side effects associated with opioids.

"Initial trials have been in small, highly select patient populations undergoing relatively minor procedures, so its role in more severe postoperative pain and its long-term safety remain to be defined," Dr. Herzig said.

That, combined with the high cost of suzetrigine at this point, has led to a limited number of hospitals using the drug for pain control.

Dr.Rambachan

"Movement toward suzetrigine is very exciting, and it would be great if we had access to some more of those types of medications," says Aksharananda (Akshar) Rambachan, MD, MPH, a physician-investigator and hospitalist with the UCSF division of hospital medicine at the University of California San Francisco in San Francisco.

Until then, hospitalists find other workarounds.

## Ketamine for Pain

At Dr. Jaffee's hospital, a ketamine order set for patients without psychotic disorders makes subanesthetic dosing easy to follow. The subanesthetic or analgesic dosing the hospital uses is 0.05 to 0.2 mg/kg/hour compared with an anesthetic dosing of more than 1 mg/kg/hour.

Physicians at Dr. Jaffee's hospital offer ketamine "somewhat frequently," he said, with a soft majority of patients having a positive response to ketamine infusions.

With the positive results, Dr. Jaffee wonders about an unintended positive side effect of temporarily treating depression in some patients.

"Outpatient ketamine protocols for depression often involve a 0.5 mg/kg infusion over 40 minutes, repeated over multiple visits. We are certainly hitting that dose in patients receiving infusions," he said.

The use of repeat depression screenings by primary care physicians or mental health colleagues may help to track any effects from ketamine, he says.

Dr. Jaffee has seen some side effects such as transient hypertension, dissociation, and nausea. He has not seen any respiratory side effects.

"This side effect profile is far safer than the opioids we are all quite familiar with," he said.

## Nondrug Approaches for Pain

Another pain management area that continues to grow is the use of nondrug therapies, which span the range of standard ice and heat regimens, massage, physical therapy, nerve blocks, music or art therapy, acupuncture, aromatherapy, and better sleep protocols.

Dr. Rambachan sees many advantages from inpatient massage therapy, especially for musculoskeletal and even abdominal pain.

"It makes patients feel like human beings instead of people who are stuck in this sterile hospital environment," he said. "I wish we could provide it to every single patient because I haven't yet seen a patient who's been unhappy with it."

Because of the limited number of massage therapists on staff, massage therapy is usually reserved for patients with cancer or cancer-related pain.

A lack of insurance coverage often limits approaches like massage and reiki (a Japanese energy healing technique), says Susan L. Calcaterra, MD, MPH, MS, director of the addiction medicine consultation service and associate professor of medicine in the divisions of general internal medicine and hospital medicine at the University of Colorado Hospital in Aurora, Colo, and a program physician with Denver Health Opioid Treatment in Denver.

Dr. Calcaterra

Although it may sound basic, better sleep also plays a role in pain control.

"Poor sleep lowers pain threshold and gets under-addressed in the hospital," Dr. Herzig said.

At Dr. Spaeth's hospital, earplugs, sleep masks, and avoiding new sleep aids may be advised. Timing considerations, like retiming morning labs for after 6 a.m. and scheduling diuretics for early morning and afternoon dosing, can help avoid nighttime sleep disruption.

When it's available, those massages can also eventually help with general relaxation and sleep as well, Dr. Rambachan says.

# Pain Priorities: A Pain Management Doctor's POV

Dr. Icaza, who is a comprehensive and interventional pain management specialist, shared what he sees as emerging priorities for pain management in hospital medicine:

- Guidelines for hospitals to adopt a transitional pain service. "The goal is to identify patients pre- or post-operatively and proactively intervene in the acute to subacute stage before their pain warps into a chronic pain syndrome," he said. Pain societies, including the American Society for Regional Anesthesia and Pain Medicine, are working on these guidelines.
- Ensuring that pain management teams have the expertise to use targeted interventions such as temporary peripheral nerve catheters. "Temporary nerve catheters are commonly used preoperatively, but there is an underutilization for nonoperative pain conditions like rib fractures," he said. Additionally, peripheral nerve catheters or nerve blocks can benefit patients with severe neuropathic pain conditions like herpetic neuralgia or severe acute postoperative pain. "Some physician-researchers are also challenging the traditional belief that peripheral nerve blocks or catheters are absolutely contraindicated with active infections," he says. More extensive studies can pinpoint if there are patients for whom a regional anesthesia therapy, such as a temporary catheter for foot osteomyelitis while using IV antibiotics, is a safe option.
- Increased use of ketamine. "Intravenous ketamine infusions can be a game-changing therapy for difficult-to-treat pain cases, such as a vaso-occlusive crisis or severe acute postoperative pain in highly opioid-tolerant patients," Dr. Icaza said. ■

Aggressive treatment of constipation also becomes important as untreated side effects often drive perceived poor pain control, Dr. Herzig says.

Also, don't neglect the value of simply listening to patients and staying aware of emotional factors at play.

"We know there are many factors that can influence one's perception of pain," said Eduardo Icaza, MD, clinical assistant professor at Florida International University Herbert Wertheim College of Medicine and interventional pain management physician at Baptist Health Miami Neuroscience Institute, both in Miami. "Emotional stressors, including anxiety and deep depression, can be large drivers [of pain]."

Dr. Icaza

Gentle encouragement can also help. "It can reassure [patients] that something nefarious isn't happening every time their pain changes slightly," Dr. Jaffee said.

Underlying mental health disorders (which can be screened for), hospital-induced insomnia, and underdosing of chronic pain medications are also important to consider, Dr. Spaeth says.

So is the role that religious beliefs might play in a person's pain experience and the need for a doctor's cultural competence in managing expectations.

## Managing Opioid Medication Use

Many hospitals will begin with acetaminophen or NSAIDs as first-line pain management and escalate from there, using multimodal approaches to address pain.

At Dr. Rambachan's hospital, the electronic health record will prompt a choice for acetaminophen unless it's contraindicated. That alone triggers some behavioral decision making to lean toward a less advanced drug choice for pain, he believes.

He sees this as a positive, except for patients who need higher-intensity pain medications immediately. "They have pain so severe that Tylenol by itself is not going to cut it," Dr. Rambachan said.

For some patients, when pain is not well controlled with the basics, opioid medications may be used.

Dr. Calcaterra describes how multimodal therapy works at her hospital. It may include acetaminophen or NSAIDS (oral or IV, including Toradol), antineuropathic agents for neuropathic pain, antidepressants if there is co-occurring depression, muscle relaxants for muscular pain (while avoiding benzodiazepines or carisoprodol), and topical agents.

If available, Dr. Calcaterra will partner with the acute pain service to offer regional anesthesia, ketamine, or lidocaine infusions.

All of these are in addition to non-drug strategies, including ice, position changes, relaxation strategies, reading, music, and even just distraction with family and friends.

"We use opioids when these therapies are insufficient to control pain. IV opioids like morphine and hydromorphone are helpful to capture acute pain with as-needed oral opioids like oxycodone or hydromorphone, which have a longer duration of action than IV opioids," Dr. Calcaterra said. "We use patient-controlled analgesia in select scenarios when patients need continuous IV pain medication and additional IV doses, such as with a sickle cell pain crisis."

For a patient on chronic opioid therapy for chronic pain who does not have opioid use disorder, Dr. Calcaterra recommends continuing at least half of the home opioid regimen with as-needed short-acting opioids depending on the clinical picture and the acuity or severity of their pain.

This also includes the use of continuous pulse oximetry for safety and monitoring, as well as naloxone on the Medication Administration Record for overdose reversal if needed.

Dr. Icaza is also a proponent of prescribing intranasal naloxone and finds that patients and their family members are receptive to it if physicians explain that it has a purpose beyond opioid misuse.

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## Opioids and Higher-Risk Patients

When patients are opioid-tolerant or have opioid abuse disorder, hospitalists take a careful look at pain treatment options.

This often means working with addiction medicine, but it doesn't necessarily mean avoiding the use of opioids.

"We have both an inpatient addiction-medicine team to help manage opioid-tolerant patient pain and a 'pain service' under anesthesia," Dr. Jaffee said. "However, many of us feel comfortable up titrating the PRNs for patients on methadone or buprenorphine ... Our primary goal is to keep them comfortable enough that they stay in the hospital rather than leaving under-treated for an infection and coming back worse."

This also involves frequent vital sign checks and establishing a rapport with patients.

One principle that Dr. Herzig and colleagues follow is recognizing that tolerance requires higher opioid doses for equivalent analgesia and that this is distinct from drug-seeking behavior. "Framing matters for both prescribing and staff attitudes," Dr. Herzig said.

However, it also is a good idea to aim for the lowest effective dose for the shortest duration and check the Prescription Drug Monitoring Program before ordering opioids, not as a barrier but to calibrate monitoring intensity, she adds.

"Buprenorphine-methadone continuation for patients on medications for opioid-use disorder is now standard. Stopping it on admission is increasingly recognized as harmful and a missed opportunity," she said. Bridging these patients to outpatient opioid-use disorder treatment at discharge is part of the plan, she adds.

"Unfortunately, evidence shows that patients with opioid use disorder or opioid tolerance receive inequitable care in hospitalized environments as their pain is often less believed ... I think this is an educational opportunity for our clinicians," Dr. Rambachan said.

When a patient is on buprenorphine, Dr. Calcaterra will typically recommend the use of two to three times the usual dose of short-acting opioids (such as hydromorphone or oxycodone) in addition to continuation of buprenorphine to account for a higher opioid tolerance.

"Similarly, if a patient is on methadone, use short-acting opioids at two to three times the usual dose for acute pain control," she said.

Overall, a multimodal approach to pain and working with a team of multidisciplinary providers can help target pain in any patient, but especially with the more challenging patients with opioid tolerance or opioid abuse disorder, Dr. Icaza says.

"We aim to have honest conversations and set realistic expectations with these patients, for example, decreasing IV opioid dosing frequency on postop day two and scheduling outpatient follow-up," Dr. Icaza said.

Palliative care can be an option for patients with uncontrolled pain despite increasing dosing and frequency, Dr. Spaeth says. "Our palliative care teams consist of trained chaplains, social workers, palliative advanced practice providers, and physicians to offer total pain care," she said.

## Future Pain Control

Going forward, hospitalists are eager to see more data on pain control, including real-world, longer-term data for suzetrigine and any similar next-generation drugs that may get approved in the future.

That includes data on whether these next-generation drugs can meaningfully displace opioids for more severe pain and not just mild to moderate pain, Dr. Herzig says.

Another pain point (pun intended) to address going forward is better integration of addiction medicine into general medicine workflows instead of siloed consults, Dr. Herzig says.

Hospitalists also say that they would like more non-pharmacological infrastructure, including regional anesthesia access and more massage and physical therapy staffing.

Dr. Rambachan believes in moving away from the simple 0 to 10 pain scale, which may give hospital systems an easy number to track but ignores the subjectivity and multidimensionality of pain. There may be a larger look at pain in terms of how it affects function, quality of life, and sleep. This also reflects many patients' priorities, he adds. He cites the updated version of the Defense and Veterans Pain Rating Scale as an example of a pain scale that addresses function more closely.

"Of course, a patient wants to be in less pain numerically on an intensity scale, but what they really care about is being able to play with their grandkids or being able to go to the gym or ride their bike. And in the hospital setting, does pain limit them from eating, getting up to use the bathroom, or working through physical therapy?" he said.

Another area for continued examination is personalized pain management plans that tackle pain more equitably for all, Dr. Rambachan adds.

"We are hopefully moving away from a one-size-fits-all approach to pain management and trying to personalize things," he said, pointing to the use of interpreter services to ask pain questions and the use of biometrics for real-time pain monitoring.

Dr. Spaeth agrees about the need to address equity and pain. "Discharge barriers due to uncontrolled pain and limited inpatient resources to actually address personal social determinants of health barriers remain challenging. Connection with outpatient pain clinics for appropriate follow-up is also needed," she said. ■

*Vanessa Caceres is a medical writer in Bradenton, Fla.*

# Should Hospitalists Routinely Perform Bedside Procedures?

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## Why Hospitalists Should Not Routinely Perform Bedside Procedures

**By Kristin Gershfield, MD, FHM**

FLIPSIDE

After six months of critical care rotations during my internal medicine residency, I felt well prepared to perform most of the procedures that were core competencies. But after a few years in practice, I'd done only a handful of paracenteses and thoracenteses, and that confidence was gone. I don't think my experience is unusual. Individual hospitalists simply can't generate the volume of procedures needed to stay competent, and lower volumes translate into lower skill and potentially a higher complication rate.[1] At most hospitals, a practitioner is credentialed and proctored once and never reassessed despite the fact that procedural skills can decline over time.[2] An additional barrier for hospitalists performing these procedures bedside is the fact that most hospitalists haven't received adequate training in POCUS. It's in our patients' best interest to have these procedures performed by people who can demonstrate genuine proficiency.

Beyond competency, asking hospitalists to perform procedures pulls them away from already very busy days, contributing to burnout and interruptions to clinical care. A single bedside procedure can take an hour or more, during which the hospitalist is unavailable to nurses, patients, consultants, and families. It isn't worthwhile for hospitalists to carve out that time when others can do the same procedures faster and more safely.

There are two situations where it makes more sense for hospitalists to perform procedures. First, hospitalists who spend a substantial portion of their time providing critical care may do enough procedures to maintain ongoing competency. Second, larger hospitals with the volume to support a dedicated procedure service can have a subset of hospitalists maintain their procedural and POCUS skills and staff that service. This would concentrate the work in a few hands that actually do enough to stay sharp, while at the same time boosting hospital throughput without detracting from everyone else's patient care.[3]

It's important to note the differences in perspective between Dr. Migliore and me—his, coming from an academic center, and mine, from community hospitals. While his vision is compelling, it doesn't reflect the current realities at most hospitals in the country. ■

Dr. Gershfield

*Dr. Gershfield is a hospitalist at Sequoia Hospital in Redwood City, Calif., and director of quality and performance for hospital medicine at Vituity.*

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## Why Hospitalists Should Routinely Perform Bedside Procedures

**Christopher Migliore, MD, MS, FACP, FHM**

The case against hospitalist procedures is not a case against hospitalist procedures. It concedes that hospitalists in critical care should perform them. It concedes that a dedicated procedure service, staffed by hospitalists, is the correct model at any hospital large enough to run one. It's more a scheduling preference: some hospitalists, organized deliberately, should do procedures, which is my position.

Competency is not a trait issued at graduation, which is then slowly misplaced, but rather a state function. It is built, maintained, and measured, or it is not. The other essay describes a physician credentialed once, proctored once, and never reassessed, drifting down to a handful of paracenteses a year. This happens, and it is a real failure, but more a failure of the system, not an inherent property of hospital medicine. The correct response to a decayed skill is to rebuild it, not to declare the skill unbecoming. In the same way we do not respond to a hospitalist who has gotten rusty on diabetic ketoacidosis by removing diabetic ketoacidosis from the job; we educate. Procedures deserve the same approach.

The volume argument also proves too much. If low individual frequency disqualifies competency, it disqualifies most of what makes a hospitalist a physician. Massive gastrointestinal bleeds are infrequent. Status epilepticus is infrequent. The genuinely crashing patient at three in the morning is, thankfully, infrequent. We do not outsource these because they are rare. We concentrate on exposure, we simulate, we build reps, and we hold people to a standard. The same machinery that keeps a hospitalist sharp on a dying patient keeps a hospitalist sharp on the use of ultrasound or the placement of a needle. Volume is an input we can engineer.

I also don't agree that someone else will always do the procedure faster and more safely. Faster than whom, and when? The patient with a tense abdomen and a fever does not care that interventional radiology is excellent. He cares that it is Saturday, that the queue is four deep, and that his paracentesis has just become a Monday problem. Delay is not neutral. In spontaneous bacterial peritonitis, each hour to paracentesis carries measurable mortality.[1] Outsourcing the procedure does not stop that clock; rather, it relocates the needle and lets the clock keep running. A hospitalist who can drain that abdomen at the bedside tonight is not a luxury but is the difference between a diagnosis made and a diagnosis postponed.

This is the part the efficiency argument doesn't price in. The comparison is never stated as hospitalist-now versus radiology-now. It is hospitalist-now versus radiology-sometime. When framed that way, the safety calculus inverts. The complication rate of a competent bedside procedure is a real number. The complication rate of a delayed procedure is also a real number, and frequently the worst one. When the studies do put them side by side, the patient-centered numbers point in the same direction: hospitalist procedure services shorten time to procedure and shorten length of stay against the radiology alternative.[2,3] Speed, when speed is the treatment, is safety.

In my opinion, there is also a deeper cost, and it is generational. A specialty that stops doing procedures cannot teach them.[4] Skills that go unpracticed do not idle; they die, and they take the next cohort down with them. You cannot

conjure a procedure service out of a workforce that never learned to do them. The dedicated service model depends entirely on a pipeline of hospitalists who kept the skill alive long enough to staff it. Abandon routine procedures broadly, and you will saw off the branch the exception is sitting on. Deskilling is not a plateau, but more of a slope. It points in one direction only.

POCUS makes this point rather than undermining it. Yes, most hospitalists were trained in an era that treated ultrasound as someone else's instrument. That is a training gap, and training gaps close. SHM has already published the framework for closing it: applications, training, assessment, and program management.[5] The technology that was supposed to make bedside procedures too complex for hospitalists is, in practice, the technology that makes them safer in hospitalist hands. The claim that we lack the skill is an argument for teaching the skill, on a timeline, with standards. It is not an argument for permanent retreat from it.

Which brings me to burnout. Ask any exhausted hospitalist what hollows out the day. It is not the hour spent doing a thoracentesis and then watching a patient breathe easier. It is the 90 minutes on hold with a consultant, the eleventh reconciliation of the same medication list, and the slow conversion of a physician into a dispatcher who orders, documents, and coordinates, but no longer *does*. The procedure is often the most physician-like hour of the shift. It is the part where you use your hands and your judgment and see the result in real time. Stripping that out in the name of wellness misdiagnoses the disease. The disease is not doing medicine. The disease is being kept from it.

So the real question is not whether an individual hospitalist can generate the volume. It is what we want a hospitalist to be. I say build the procedure service and concentrate the reps. Credential seriously and reassess honestly. Measure complications and time to procedure as the quality metrics they are. Teach POCUS with the same rigor we bring to antibiotic stewardship. Make competency something the department owns rather than something the individual is assumed to have quietly maintained on his own.

Do that, and hospitalists will perform bedside procedures routinely. Not everyone, and not carelessly, but routinely, deliberately, and well, as a core function of a physician who is present, who is fast when speed is itself the treatment, and who does not flinch when the answer is a needle rather than a consult. The bedside is not borrowed territory. It is our jurisdiction. Ceding the procedures that happen there is one more step in a long drift from physician to coordinator, and that drift, not the occasional difficult paracentesis, is the pathology.

The other side wants to protect patients from undertrained hands. I agree, completely. We disagree about the remedy. They would remove the hands; I would train them. One of those answers continues to build a specialty. The other explains why the specialty is no longer needed. ■

Dr. Migliore

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History of HM

# Your Hurt Is Not My Hurt: The Subjectivity and History of Pain

**By Jessie Hsu**

"Only that which never ceases to hurt stays in the memory," philosopher Friedrich Nietzsche said about pain. For him, pain is central to human existence, and its function is to make us remember. For as long as humans have been around, we have been constructing theories about pain. What brings it about, why it exists, and how to measure it. In a sense, Nietzsche was quite right; pain does make us remember. And unbeknownst to him in the 1800s, the mnemonic function of pain provides an evolutionary benefit. Pain tells the body what is harmful and what must be avoided if we want to survive.

## Expressing Pain

Despite its evolutionary benefit, pain has always been a profound source of human distress. Perhaps its most troubling feature is its inexpressibility, which creates a dilemma for patients and physicians alike. In "The Body in Pain," Elaine Scarry, PhD, Cabot Professor of Aesthetics at Harvard University and a Senior Fellow at Harvard's Society of Fellows, observes that pain resists language.[1] At its extremes, it can leave the person experiencing it literally unable to speak. Even mild pain, however, can be difficult to describe. Fear and happiness usually have an object: You are afraid of something or happy about something. Physical pain is different. It has no object. You are not in pain of something; you are simply in pain.

Sufferers of chronic pain often comment on the deeply isolating aspect of their pain—a direct consequence of its inexpressibility and subjectivity. In her memoir about illness, author Elisabeth Tova Bailey writes of the "unbridgeable divide" that widens between someone who is in pain and their loved ones.[2] This inexpressibility of pain makes it the ultimate challenge and test for our empathy. None of us are strangers to hearing a friend or family member complain about some pain they have and then secretly wondering in the back of our minds if it's really that bad.

Theorists of the mind may be quick to point out that no one can know what someone else's experiences are like in all cases, not just pain. This is the concept of qualia, of subjective experience. How do I know that I experience the color red in the same way you do? I don't know, of course. And while qualia apply to a great number of situations, pain is the one that matters the most. It usually doesn't matter if the red I see is the red you see, or if the smell of a jasmine flower is the same for me as it is for you, but it matters deeply if you truly believe I am experiencing the pain I say I am.

This has great implications for patients and their physicians. Patients, above all, need to feel heard and believed to feel cared for. And physicians need to understand how the patient feels, as accurately as possible, to provide the best possible care.

This has made understanding pain and finding ways to communicate it a prominent endeavor in the history of medicine, going back to antiquity. Early theories of pain were focused on explaining what it was and where it came from. Some of the oldest texts we have about pain are from 3500 B.C.E. in Mesopotamia, where it was understood that pain and illnesses had a supernatural cause, such as demons and omens sent by gods to interfere with the body. While we now understand much more about the physical causes and pathways of pain, its early mystical quality has not entirely left us. Pain—and suffering, more broadly—is still attributed to divine punishment or will in some religions.

Hippocrates of Kos, whose legacy is enshrined in the Hippocratic oath, believed that imbalances in the four humors of the body were what caused pain and that pain could be relieved by correcting these imbalances. Over a millennium later, Ibn Sina, also known as

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Avicenna, described pain as a sign of something that has occurred in the body, rather than a disease in itself, a concept we still largely adhere to in our understanding of pain as a symptom of an underlying problem.

In the 17th century, philosopher René Descartes described nerves as fine wires that connected the tissues to the brain, providing sensation. This, along with other work throughout the following two centuries, paved the way for physiologist Moritz Schiff to propose the specificity theory of pain that stated that pain follows a pathway separate from the other senses. This was contrasted by the pattern theory of neurologist Wilhelm Erb, which stated that any stimulus, when intense enough, could cause pain. Variations of both these theories are still being iterated and researched today.[3]

## Measuring Pain

After Descartes, scientific and medical communities started to propose ways that pain could be formally measured and scaled.[4] In the 19th century, psychophysicists delivered painful stimuli to tissue and attempted to quantify each participant's pain threshold and tolerance or the magnitude and rating of the pain felt. An example of this type of assessment was the dolorimeter, a device created in 1940 by researchers James D. Hardy, Harold G. Wolff, and Helen Goodell at Cornell University that applied pressure, heat, or electric stimuli and measured participants' responses. Using the results from the dolorimeter, they created the 10-level Hardy-Wolff-Goodell pain scale. However, other researchers were unable to reproduce these results, and their pain scale never reached widespread use.[5]

Henry K. Beecher, an anesthesiologist and medical ethicist, was one of the scientists who expressed doubt about the dolorimeter's applicability and paved the way for more familiar pain assessments that use patients' own subjective ratings. For example, the McGill Pain Questionnaire, developed in 1971, proposes three components of pain—sensory, evaluative, and affective—and provides patients with 78 words split into those categories (plus a "miscellaneous" category) that they can select to describe their pain.[6]

The most common currently used pain assessments are numeric rating scales, such as the NRS-11, an 11-point scale where 0 is no pain at all, and 10 is the worst pain imaginable. Other qualities of pain that may be assessed in different scales, such as the Brief Pain Inventory, include how much the pain interferes with a patient's activities of daily living (ADLs).[7] While assessments like these are incredibly useful and have had their utility validated in studies, they still do not capture the incredibly complex and individual experience of pain.[8]

For example, the "worst pain imaginable" depends on the patient's imagination. Someone who has experienced severe injury or childbirth may be able to imagine a much greater pain than someone who has never suffered more physical pain than a stubbed toe. Or, when an assessment asks about how much the pain interferes with ADLs, someone who has experienced chronic pain for a long time may have learned to operate "normally" while bearing a high degree of pain, perhaps a level of pain that left them doubled over or bedridden when they first experienced it. It's not clear that the pain has actually decreased in severity, despite it interfering with ADLs less, but this is a nuance that a numerical scale cannot capture.

Evidently, despite our thousands of years of theorizing and experimenting, continued research on pain assessment is needed. Recent studies are promising, demonstrating that there are alternatives to the commonly used NRS that may be just as easy to use for practitioners and preferred by patients.

A 2024 study conducted over 18 months in an adult inpatient setting found that the Functional Pain Scale (FPS), a three-question pain questionnaire, was preferred over the NRS by 77% of patients always or most of the time and judged by nurses as feasible to implement.[9] A 2024 five-month study in patients recovering from orthopedic surgery evaluated the Interventional Pain Assessment (IPA), a one-question assessment, and found that 89.3% of patients and 76% of nurses preferred the IPA over the NRS.[10]

Given the limited settings in which the FPS and IPA have been studied so far and that these studies focused solely on nursing workflow, additional research is needed before widespread implementation can be recommended. What is important to note is that both the FPS and IPA ask about pain tolerability and allow patients to answer in words rather than numbers, indicating qualities that may be helpful to patients when formulating improved pain assessments and pursuing assessment standardization.

It seems to be an essential fact of the mind that others' experiences, exactly as they experience them, will forever remain inaccessible to the self, regardless of how sophisticated a pain scale is. However, recent research shows that there is still great value in improving upon the NRS and other commonly used assessments by considering patient feedback and preferences. No matter how many cases of pain a clinician has seen, patients understand the lived experience of their own pain the best, and the best we can do is to learn from them as we seek to improve the care we provide for them. ■

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# Developing a POCUS-Focused Inpatient Wards Team with Mixed Faculty Expertise

**By Arinea Salas, MD, Swathi Subramany, MD, FACP, David Goldstein, MD, SFHM, Cassie Shaw, MD, FACP, David Baron Herrera, MD, and Evelyn Inga, MD**

Despite national endorsements from the Society of Hospital Medicine, the American College of Physicians, and the Alliance for Academic Internal Medicine recognizing point-of-care ultrasound (POCUS) as an essential skill, and while there have been recent Delphi studies establishing what core applications should be taught and how to teach and evaluate POCUS skills, program-level curriculum adoption remains inconsistent.[1-4]

One program highlighted its use of "gel rounds" as part of its longitudinal curriculum. This program encourages, but does not require, the use of bedside ultrasounds during routine rounding on inpatient wards. However, the literature has not adequately described how POCUS should be integrated into inpatient ward practices.[5]

In April 2025, an internal needs assessment evaluating residents' knowledge, attitudes, and perceptions regarding POCUS within our internal medicine residency program revealed a critical need for expanded training opportunities. Nearly 70% of surveyed residents expressed dissatisfaction with the current curriculum. Furthermore, approximately 50% felt that two to four hours per month should be dedicated to POCUS training, while 25% desired more than four hours of structured education monthly. Residents identified limited access to ultrasound machines and a shortage of trained attendings as primary barriers to learning. Suggestions for improvement included dedicating rotation time to POCUS practice, prioritizing active learning over passive modules, providing real-time feedback and mentorship, and increasing the availability of dedicated ultrasound devices for rounding teams.

This prompted the idea of creating a formalized, inpatient, POCUS focused rotation with expectations requiring that a POCUS study be performed daily.

A POCUS wards workgroup was formed to design and implement this initiative. Stakeholders included a POCUS expert and POCUS novice faculty, an associate program director, internal medicine chief residents, the vice section chief of education, and the section chief of hospital medicine. It was decided that the current inpatient medicine workflow should not deviate significantly for realistic implementation. It has been shown that the streamlined integration of POCUS into the existing clinical workflow is essential for increasing the use of POCUS.[6] For this reason, one pre-existing inpatient teaching team out of four was decided to be the target of implementation, and its call cycle, learner staffing, and patient population would not change.

Key team expectations include that the team performs at least one POCUS exam per day, at least one POCUS exam is performed on a new admission or transfer on admitting days, and image review takes place in the afternoons on non-call days.

## Barriers and Solutions

Access to ultrasound machines was the most significant barrier to implementation. The division, including the teaching teams, only had access to two handheld ultrasounds located in the supervising physicians' workroom, which is not immediately adjacent to the inpatient units or resident workrooms. Additionally, these handheld ultrasounds did not have a vascular preset, which POCUS faculty identified as inadequate. As there was insufficient equipment funding, the workgroup requested that faculty donate their unused FDF (Faculty Development Funds) for the year towards purchasing a cart-based ultrasound machine. Enough funds were collected to allow for the purchase of a machine that is physically located in the hallway of the unit assigned to the POCUS-focused wards team via geographical cohorting.

The lack of trained POCUS faculty is another common and well-established barrier to successful integration of POCUS training.[7,8] To staff the team, attendings were required to have access to QPath E (Telexy, Inc.)—the hospital's POCUS archiving system for image storage, review, and quality assurance—and to perform at least one type of POCUS exam competently. Formal POCUS expertise was not required. Faculty were encouraged to practice scanning standardized patients at our monthly POCUS Club—a low-stress, open-house session facilitated by the division's POCUS expert faculty. These two-hour sessions offer hands-on, supervised scanning with POCUS expert faculty and a standardized patient, structured as an informal drop-in open house. One hope was that POCUS novice faculty who signed up would be motivated to deepen their POCUS knowledge over time. The majority of attendings are on service for seven days at a time, so most residents would be on service with a POCUS expert for at least one to two weeks of their three-week rotation.

Another barrier was a lack of awareness of how to use and access QPath E. In December 2025, QPath E was made accessible via the university hospital intranet and as an application on the hospital Citrix Storefront, through the efforts of a workgroup faculty member. Two internal medicine residents created two nine-minute educational videos as part of a quality improvement project. The first teaches POCUS fundamentals: basic physics, knobology, modes, artifacts, indicator orientation, image optimization, and probe movements. The second demonstrates a step-by-step guide to using QPath E. There are pre- and post-intervention surveys. Residents rotating on the service are encouraged to watch these videos and are sent emails and direct messages with reminders at the beginning and throughout the three-week rotation.

## Implementation and Initial Feedback

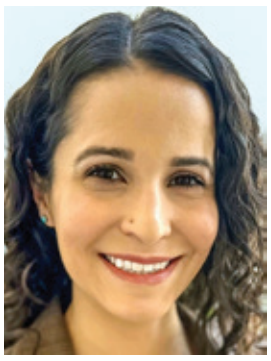
Fourteen attendings with POCUS expertise ranging from novice to expert signed up to staff the team, which began in January 2026, nine months after the workgroup was created. Most attendings have completed at least one POCUS study daily, with time constraints cited as the primary barrier among those who have not, particularly POCUS novice faculty.

Informal feedback from residents:

- "POCUS wards teach POCUS the way it's meant to be taught and used."
- "It's exciting to compare our reads to formal reads."
- "We get to practice this skill so much more with this new opportunity."
- "POCUS was less intimidating for me at the end of my rotation because I got to use it without the pressure of placing a line in the MICU [medical intensive care unit] or in a critical care scenario."

Informal feedback from attending physicians:

- "Having clear expectations to utilize POCUS daily and easy access to a high-quality cart-based machine on the same unit as the majority of patients with geo-


Dr. Salas

Dr. Subramany

Dr. Goldstein

Dr. Shaw

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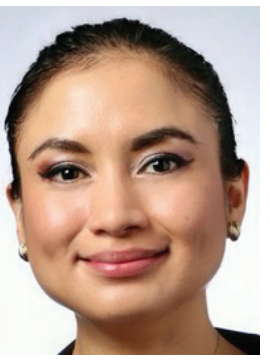
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graphical cohorting has made it feasible to use POCUS at least once daily, mostly during rounds to answer specific questions. One major challenge is the lack of interest among the majority of preliminary interns."

- "As a POCUS novice, I had the team watch short videos online on high-yield POCUS topics. We were able to see elevated JVP [jugular venous pressure] and compare that to patients with normal JVP. We were also able to see B lines on a patient with pulmonary edema."

Preliminary survey data: Of nine residents who completed the pre-rotation survey, four completed the post-rotation survey, with three of four (75%) completing the educational modules.

Across all ultrasound confidence and knowledge domains—including probe selection, image optimization, ultrasound physics, and QPath E workflow—post-rotation respondents demonstrated meaningful improvement, with low confidence eliminated entirely.

Most notably, all four post-rotation respondents anticipated increasing their POCUS use to at least weekly in future clinical practice, compared to rarely or never before the rotation. Residents identified expert mentorship, protected scanning time, and organ-specific teaching as areas for growth.

## Lessons Learned and Next Steps

This initiative demonstrated that the absence of POCUS expert faculty available 100% of the time need not be a barrier to launching a dedicated POCUS wards team. Early engagement of key stakeholders across both the division and residency leadership proved essential to successful implementation.

In practice, teams have been scanning at least once daily on most days; however, scanning is occasionally not completed, most often on busy days with POCUS novice faculty, with time constraints cited as the primary barrier. Preliminary interns have shown limited interest in POCUS participation, and we have requested that residency leadership schedule only categorical interns for the team going forward.

Several areas for continued development have been identified. A formal process for longitudinal support, supervision, quality assurance, and feedback for POCUS novice faculty remains to be established. Additionally, setting clear expectations at the start of rounds, including which patients will be scanned, what specific clinical questions will be addressed, and whether scanning will occur during rounds or in the afternoon, has emerged as a critical factor in ensuring POCUS is consistently integrated into the workflow on even the busiest clinical days.

## Conclusion

With the implementation of the above, we were able to achieve a structured method to improve exposure to POCUS as well as the introduction of how it fits into the inpatient medicine wards' workflow, even when staffed by POCUS novice faculty members. We were able to do this by having a dedicated ultrasound machine, cohorting interested POCUS expert faculty as attendings on this team, and setting clear expectations about when and where POCUS studies will be performed and reviewed. Integrating POCUS into current workflows, where possible, without significantly changing the structure of the rotation has also been a key element of success. ■

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How We Did It

# Optimizing Patient Flow and Growing Referring-Hospital Transfers

Lessons from the "East-First" Strategy at The OSU Wexner Medical Center

**By Benjamin P. Buettner, MD, FACP, Deepak Rai, MD, FACP, SFHM, and Tyler Tumberg, MBA, MHA**

As a quaternary academic referral center, The Ohio State University Wexner Medical Center (OSUWMC) is heavily reliant on transfers from referring hospitals and experiences high volumes of such transfers, comprising nearly one-quarter of admissions. Inpatient care is provided at two sites: the larger main campus and Ohio State University (OSU) East Hospital, which is staffed by OSU faculty and provides academic center expertise at a smaller, community-sized hospital five miles away. OSU East Hospital's capacity is 200 beds (18% of total system capacity), and it offers comprehensive services, but fewer than the main campus. The Division of Hospital Medicine (DOHM) East services includes a daily complement of 17 physicians across various shifts. OSUWMC faced capacity constraints, particularly at the main campus, where fiscal year 2024 occupancy averaged 92%. OSU East Hospital consistently had greater bed availability; however, its capacity remained underused, with fiscal year 2024 occupancy averaging 80%. This underutilization negatively affected the overall patient flow and DOHM East services.

## Solution Overview

A similar hospital system has addressed capacity constraints by implementing a load balancing protocol that directs stable, lower acuity admissions from the quaternary academic hospital emergency department (ED) to nearby community hospitals.[1] OSUWMC has variably employed a similar approach; however, impact has been limited by the timely availability of transportation between campuses. Given that transfers from referring hospitals comprise a significant share of inpatient admissions at OSUWMC, focusing efforts on these patients offered considerable potential.

Process enhancements were needed to optimize overall system flow, maximize bed utilization at OSU East Hospital, improve timely access for patients (particularly from referring hospitals), and ensure steady staffing levels to justify the specialized academic care provided by OSU East Hospital's DOHM services. There was recognition that clinicians had a bias toward transferring patients to the main campus despite the ability to safely receive care at OSU East Hospital due to a lack of recognition that this "community hospital" offered specialized care that could benefit patients transferred from community hospital partners. Key opportunities for improvement were identified, including inconsistent strategies for

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targeting OSU East Hospital for incoming transfers, the absence of an accessible, comprehensive clinical guideline to inform medical decision making for optimal patient placement, and a lack of engagement and accountability in triage decisions.

A work group was formed, comprising leaders representing the academic medical center, OSU East Hospital, and the medicine service line, several of whom were hospitalists. Through active discussion and collaboration, the team introduced three innovative solutions to address these challenges. These included creating a comprehensive OSU East Services Availability Guideline, establishing an "East-First" strategy to target transfers from referring hospitals, and implementing "Destination Decline" reasons to track those patients who were instead targeted to the main campus.

The OSU East Services Availability Guideline was developed as a priority, as it serves as a crucial tool for providing clinical guidance and facilitating effective triage decisions while ensuring safe patient care. Specific tracking of decline reasons was implemented to create increased accountability for making intentional triage decisions based on clinical factors rather than preference, and was felt to be necessary for change management. In line with the intention of focusing on clinical factors, it was decided that patient preference for the main campus would not be accommodated when the needed services were available at OSU East Hospital.

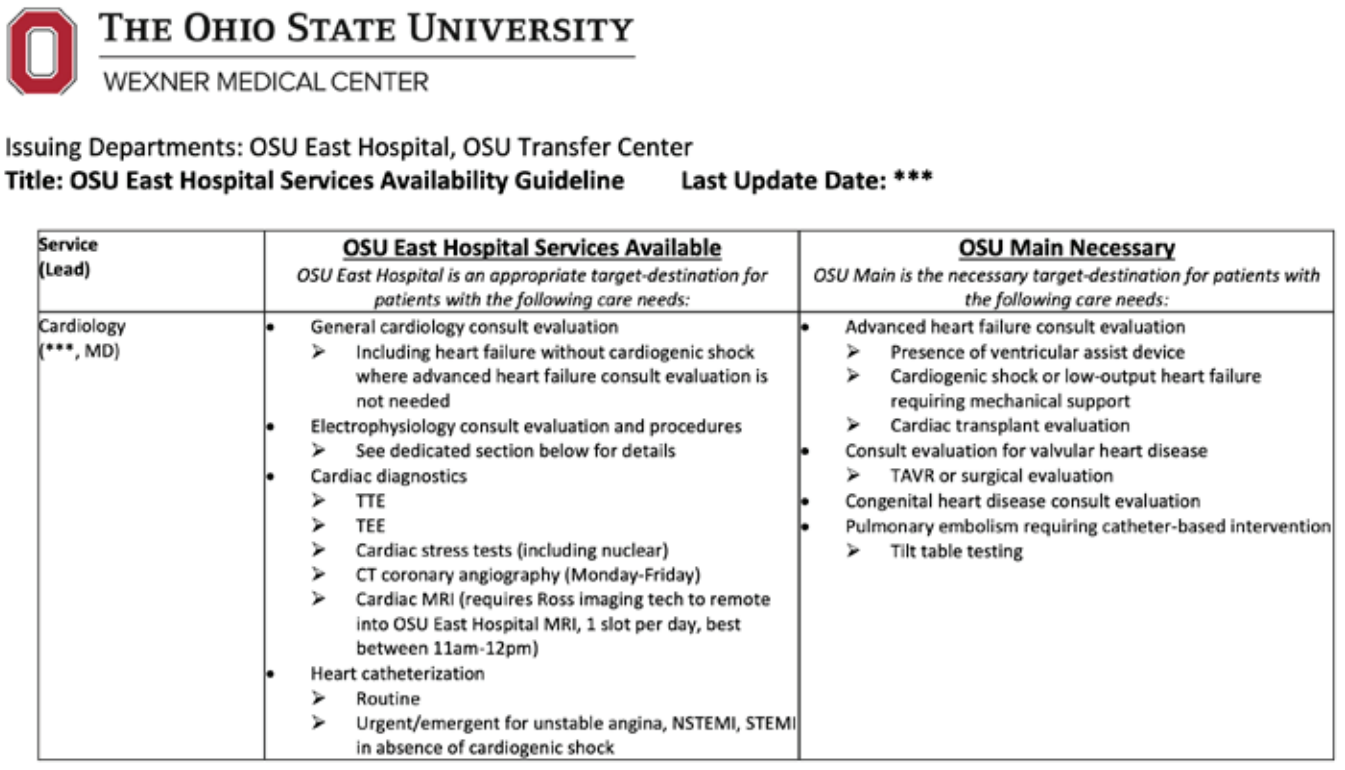
## Implementation Process

Beginning in November 2024, the transfer center medical director and leadership revised standard operating procedures and educated transfer center nurses to prioritize OSU East Hospital for all non-cancer transfer requests. This directive was communicated through operations meetings, individual discussions between leadership and staff, and education sessions. Despite these efforts, an increase in transfers from referring hospitals was not observed, and it was determined that more extensive work would be required to achieve the desired outcome.

While examining opportunities surrounding the limited response, an internal transfer center document detailing OSU East Hospital services was evaluated and determined to be incomplete, lacking adequate clinical guidance to inform triage, not accessible to those outside the transfer center, and not able to support targeted, real-time updates when needed. Therefore, it was concluded that replacing this with the OSU East Services Availability Guideline would be essential to deliver the necessary clinical guidance for effective triage. To ensure strategic alignment, a kickoff meeting was held, bringing together patient flow, transfer center, OSU East Hospital, and DOHM East leadership, and establishing a dedicated work group. The meeting clarified objectives, facilitated operational planning, assigned responsibilities, and set timelines.

Following this, work began on creating the guideline. OSU East Hospital leadership identified the respective leaders for each service area. In total, 44 physician leaders and staff contributed to and validated the content (see Figure 1 for an example of the guideline). Following final approvals, the guideline was published and distributed to all OSU East Hospital Medical Staff, published on an internal website for widespread accessibility, and presented directly to DOHM East physicians, ensuring awareness and enhancing transparency regarding service availability to inform DOHM practices. Transfer center nurses received extensive guidance and education on using the guideline to inform triage decisions, with support from triage physicians when needed.

Additionally, the transfer center introduced "Destination Decline" reason documentation within the electronic health record. This initiative aimed to improve accountability in triage decisions by transfer center nurses and facilitate analysis of the population of transfers deemed inappropriate for OSU East Hospital, thereby identifying future opportunities to expand care capacity. Five decline reasons were established to capture meaningful and actionable data: three based on triage decisions informed by using guideline information ("Consultant not available," "Procedure/surgery not available," and "Patient-specific factor"); "Provider discretion" for declines outside of the guideline scope; and "Bed capacity" for cases directed to the main campus due to limited progressive-care or intensive-care bed availability at that time.



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Issuing Departments: OSU East Hospital, OSU Transfer Center
**Title: OSU East Hospital Services Availability Guideline** **Last Update Date: ***

| Service (Lead) | OSU East Hospital Services Available<br>*OSU East Hospital is an appropriate target-destination for patients with the following care needs:* | OSU Main Necessary<br>*OSU Main is the necessary target-destination for patients with the following care needs:* |
|---|---|---|
| Cardiology (***, MD) | • General cardiology consult evaluation<br>➢ Including heart failure without cardiogenic shock where advanced heart failure consult evaluation is not needed<br>• Electrophysiology consult evaluation and procedures<br>➢ See dedicated section below for details<br>• Cardiac diagnostics<br>➢ TTE<br>➢ TEE<br>➢ Cardiac stress tests (including nuclear)<br>➢ CT coronary angiography (Monday-Friday)<br>➢ Cardiac MRI (requires Ross imaging tech to remote into OSU East Hospital MRI, 1 slot per day, best between 11am-12pm)<br>• Heart catheterization<br>➢ Routine<br>➢ Urgent/emergent for unstable angina, NSTEMI, STEMI in absence of cardiogenic shock | • Advanced heart failure consult evaluation<br>➢ Presence of ventricular assist device<br>➢ Cardiogenic shock or low-output heart failure requiring mechanical support<br>➢ Cardiac transplant evaluation<br>• Consult evaluation for valvular heart disease<br>➢ TAVR or surgical evaluation<br>• Congenital heart disease consult evaluation<br>• Pulmonary embolism requiring catheter-based intervention<br>➢ Tilt table testing |

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**Figure 1.** Example of OSU East Hospital Services Availability Guideline

## Outcomes and Impact

The interventions were fully implemented in March 2025. Volumes of transfers from referring hospitals to OSU East Hospital were assessed monthly (see Figure 2). Comparing the eight months before intervention (July 2024 to February 2025) with the subsequent eight months (March 2025 to October 2025), transfers to OSU East Hospital rose from 980 to 1,248 (a 27.3% increase), with those to DOHM East services exhibiting an increase from 721 to 956 (32.3%). Notably, this post-intervention growth has been sustained with continued record-setting transfer volumes. In a year-to-date analysis of fiscal year 2026 compared to 2025, transfers to OSU East Hospital grew by 115 (22.9%), and those to DOHM East services increased by 113 (30.2%).

It was considered that increasing transfers from referring hospitals to OSU East Hospital could potentially lead to a rise in the subsequent need for transfers from OSU East Hospital to the main campus. While a modest increase was expected due to the larger volumes, it was determined that a substantial increase would be detrimental to patient flow and would not support the intended objectives. An analysis was conducted to determine the volume of patients who were initially transferred from a referring hospital to OSU East Hospital, then subsequently required a transfer to the main campus at any point during their stay. When comparing the eight months preceding the intervention to the eight months following implementation, such cases increased slightly from 108 to 112 (3.7%), a change that was not felt to be significant and may have been related to seasonal variables. A year-to-date analysis of fiscal year 2026 compared to 2025 showed a decrease of 20 cases (31.7%), which exceeded expectations.

Since monitoring began for OSU East Destination Decline reasons, the results have been as follows: "Consultant not available" accounted for 36.7%, "Patient-specific factor" for 25.6%, "Procedure/surgery not available" comprised 19.7%, "Provider discretion" represented 16.3%, and "Bed capacity"

## Key Points

- Quaternary medical centers and hospitalist programs experiencing patient flow issues due to limited capacity can enhance flow while increasing transfer volumes by consistently directing suitable patients to smaller regional or community hospitals.
- To improve triage decisions and support the goal of higher transfer volumes, it is essential to develop and implement a comprehensive clinical guideline created with input from a broad group of physician leaders.
- The intervention pursued resulted in a notable rise in external transfers to OSU East Hospital and to the Division of Hospital Medicine East services, which has been sustained. Importantly, this did not lead to a higher need for subsequent transfers to the main campus, which would have hindered patient flow.

made up 1.8%.

Transfer center nurses have indicated that establishing a consistent "East-First" standard operating procedure, rather than activating this process only during periods of system capacity strain, facilitated its integration into their daily workflow. This approach shifted nurses' perspectives from viewing OSU East Hospital as an option for select patients to considering it as a default destination for all patients until otherwise determined.

Given that transfer triage at OSUWMC is largely nurse-driven, the OSU East Services Availability Guideline provided more comprehensive guidance, enabling nurses to perform their roles more effectively and support increased patient transfers to OSU East Hospital. It also equipped them with resources for more informed discussions with physicians regarding triage decisions when needed and the tools to advocate for OSU East Hospital when appropriate. This has cultivated a sense of ownership and engagement among the transfer center nurses to maximally use system capacity, and the success achieved through these initiatives has been a significant source of pride for the team. Including Destination Decline reasons and regularly reviewing relevant group and individual data with each team member has promoted accountability.

## Lessons Learned

This work provides valuable insights for hospital systems and hospitalist programs considering initiatives to address patient flow and capacity constraint challenges. One system has improved patient flow by balancing admissions from the emergency department.[1] OSUWMC showcases a different approach, focusing on transfers from referring hospitals. This allows removal of patient preference from consideration, as we did not accommodate patient preference for the main campus when the needed services were available at OSU East Hospital. As transportation is already part of a hospital transfer, this represents a net-neutral transportation need compared to other models and does not require arranging or providing for transportation, which is coordinated by the referring hospital. This offers a significant advantage compared to other models for systems that face limited transportation options. A cumulative effect would likely be seen in systems able to employ both strategies.

Initial attempts to increase transfers to OSU East Hospital did not deliver positive results until broader collaboration and commitment were established.

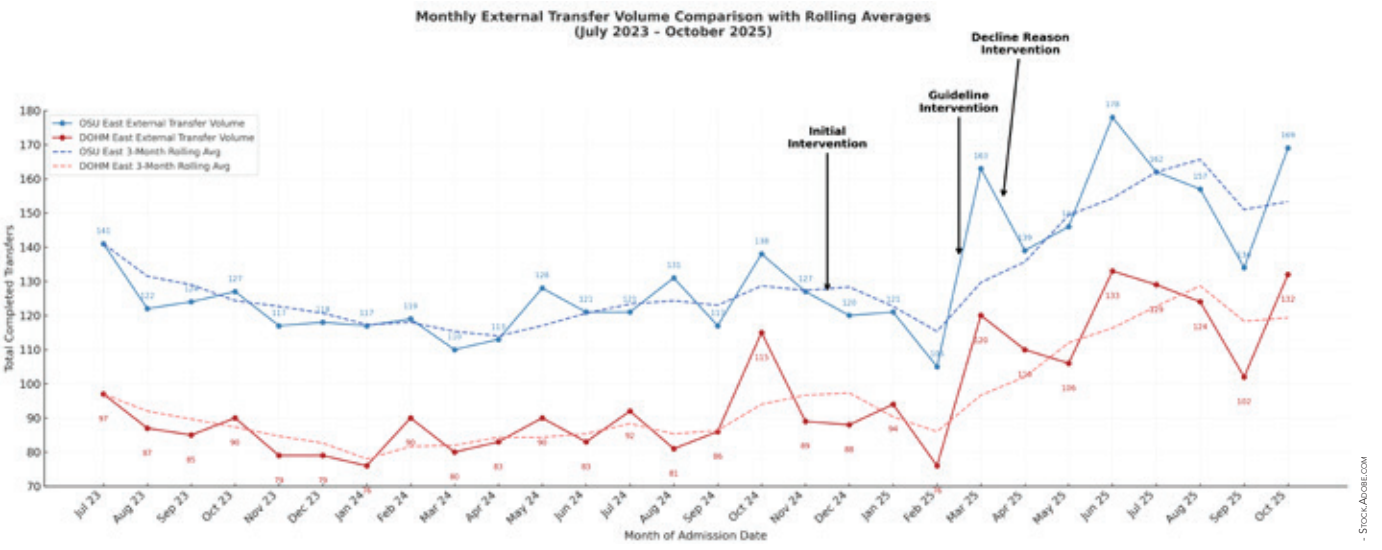


**Figure 2.** Monthly external transfer volume comparison with rolling averages

The most impactful intervention was the development of the OSU East Services Availability Guideline, which gave triage nurses the requisite guidance to inform triage decisions. The difference witnessed before and after publishing this guideline highlights its value, acknowledging that the effect is a cumulative effect of all interventions. By empowering nurses with the guidance needed, the initiative minimized the need for practitioner involvement in triage, freeing them up for direct patient care.

Ensuring the guideline was readily accessible and easily updatable was an additional key factor in our success. By posting the guideline on an internal site, we facilitated consistent access. This approach enabled the posting of revised versions in a centralized location, ensuring that all users consistently referenced the most current document. As a result, we have implemented multiple incremental updates informed by case reviews since the initial release.

## Future Directions

As hospital services continue to evolve, these changes must be promptly reflected in the guidelines to ensure ongoing success and growth in transfer volumes. Incremental updates are regularly implemented as necessary, with a comprehensive annual review cadence planned with involvement from the leaders of each service.

With the available data that have been created with the implementation of the "OSU East Destination Decline" reasons, there is an opportunity to conduct more detailed clinical analyses of specific cases. This may yield actionable insights to further improve triage practices, boost service line engagement at OSU East Hospital, and identify ways to serve more patients by expanding available services and showcasing use cases for those services.

Although the transfer center has excelled overall and played a key role in the initiative's success, some variability among frontline staff remains. During monthly performance reviews with staff, data related specifically to OSU East Hospital transfer performance is reviewed with each nurse, with the goal of elevating the performance of the entire group. This allows for assessments of further opportunities, goal setting, and implementation of educational strategies for those performing below expectations.

Revisiting a load balancing protocol for patients presenting to the main campus emergency department and admitting them to OSU East Hospital, using the experience of another hospital, is worthy of future exploration.[1] Using the foundation created by the OSU East Services Availability Guideline would allow for optimal patient selection and is a crucial addition not previously available during attempts at this approach in the past. Unfortunately, historically limited transportation options remain a significant barrier and are largely outside of our control. ■

## Reference

1. Carmichael HL, et al. Optimizing patient care and hospital operations through interhospital admission transfers: The load balancing protocol. *J Hosp Med.* 2026;21(5):585-589. doi: 10.1002/jhm.70174.

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