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## Pediatric Psych Visits Surging in EDs, Along with Medical Malpractice Risks

**M**any EDs are seeing a dramatic surge in children with psychiatric complaints, a group that is clinically challenging and presents some serious legal risks.

"Patients with psychiatric conditions are at risk of injuries, either from attempts at self-harm, impulsive behaviors, or injuries inflicted by others," says **Genevieve Santillanes**, MD, an associate professor of clinical emergency medicine at the University of Southern California in Los Angeles. The authors of multiple recent studies have discovered a pattern of slowly increasing rates of pediatric psychiatric patient visits to EDs over the past decade.

One in 10 ED visits by children and young adults (ages 6 to 24 years) in 2015 were for psychiatric reasons, according to a recent analysis.<sup>1</sup> The researchers found a 28% increase in psychiatric ED visits between 2011 and 2015 (with the largest increases among adolescents, African Americans, and Hispanics).

Fifty-one percent of visits lasted at least three hours, and 20% of visits took more than six hours. Despite spending that long in the ED, most patients never saw a mental health provider during the visit. Only 37% of adolescents who attempted suicide or self-injury, and 16% of all psychiatric patients, saw a mental health provider in the ED.

In an analysis of COVID-19 pandemic data, researchers found the proportion of mental health-related ED visits for children ages 5 to 11 years and adolescents ages 12 to 17 years increased 24% and 31%, respectively, between March and October 2020 compared to the same period one year earlier.<sup>2</sup>

The number of pediatric ED visits was stable from 2007 to 2016, but visits for mental health disorders rose 60% during that period. Visits for deliberate self-harm rose 329%, according to data from the National Pediatric Readiness Project.<sup>3</sup> Notably, most of these visits were at general EDs as opposed to pediatric EDs.

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The Children's of Alabama ED saw 219 children age 10 years and younger with a mental health complaint in the first half of 2016.<sup>4</sup> Of this group, 45% were admitted. Three or more previous psychiatric diagnoses, family history of psychiatric illness, history of trauma or any previous psychiatric care, and chief complaints of suicidal ideation all raised the odds of admission.

When caring for pediatric psychiatric patients, EDs face specific liability risks:

- **The pediatric patient may harm themselves or another person, either after discharge or in the ED.**

"While patients are being held in the ED, [staff] must ensure that the patient is adequately supervised and that their space is free from potential means to harm themselves or others," Santillanes explains.

- **ED providers may miss an attempt at self-harm.** "Emergency physicians should always consider whether a work-up for potential toxic ingestions is necessary in patients with depression or suicidal ideation," Santillanes suggests.

- **A patient may deteriorate because of a concurrent medical condition.** Plaintiff attorneys can argue the condition was unaddressed during a long ED stay, or that the condition was not adequately stabilized before transfer to a psychiatric facility.

"This includes known medical conditions, such as diabetes or seizure disorders, or unrecognized conditions, such as infections," Santillanes adds.

- **ED providers may attribute the patient's signs and symptoms to a psychiatric condition when, in fact, the findings are caused by an underlying medical disorder.** "This may occur with initial presentation of a psychiatric mimic," Santillanes says.

For example, a patient with anti-NMDA receptor encephalitis might be misdiagnosed with a psychiatric condition and inappropriately transferred to a psychiatric hospital instead of being admitted to a medical bed for treatment.

Concurrent medical conditions could lead to worsening of patients' chronic mental health conditions, particularly in those with communication difficulties.

"Patients with autism, particularly nonverbal patients, may have increased aggression or self-harming behaviors when they are in pain," Santillanes notes.

A careful physical exam and history might reveal contributory medical conditions such as constipation or appendicitis. "It is also critical to ensure that symptoms that seem to be psychiatric in nature truly are due to psychiatric conditions, and not medical conditions such as encephalitis, neurologic disorders, or metabolic derangements," Santillanes cautions.

Before pediatric psychiatric patients are discharged from the ED, Santillanes says staff should carefully document the visit. This includes recording that there was an evaluation of risk factors and protective factors as well as notes about possible access to lethal means of suicide (e.g., firearms and medications).

It also is important to create a follow-up plan with a primary care physician or mental health professional. For patients presenting with suicidal ideation, a social worker or mental health clinician should develop a safety plan (including removing lethal means of harm, listing recognition of triggers, identifying coping mechanisms, and recording a list of people who can help if symptoms worsen).

Finally, before these patients are discharged, document any resources, such as phone numbers for emergency contacts, that were provided, and indicate that a clinician screened for abuse. "Children with histories of trauma, including abuse, may present with psychiatric or behavioral emergencies," Santillanes says.

There also is the potential for EMTALA issues, such as failure to stabilize concurrent medical conditions. "There is a need to ensure that the patient is medically stabilized prior to any admission or transfer to a behavioral health unit or facility," says **Mary C. Malone**, JD, a partner at Hancock Daniel in Richmond, VA.

Another EMTALA concern is whether it is OK for pediatric patients to be transferred via private car. "To ensure a safe transfer as required by EMTALA, it is better to have a medical transport with a parent riding along, if desired," Malone offers.

Pediatric psychiatric patients tend to be left in the ED for long periods because there are no available inpatient beds. This is legally problematic for several reasons. "The risk is that the same patient is being signed out multiple times, crossing over three or four shifts before you can get a disposition on them," says **Alfred Sacchetti**, MD, chairman of the department of emergency medicine at Our Lady of Lourdes Medical Center in Camden, NJ.

If the patient is agitated or aggressive, providers may end up chemically sedating them. "Then, you run into all of the problems that go along with that — is it too much, is it too little?" Sacchetti says. "You hate to physically restrain a child because there are all kinds of negative implications there."

Sometimes, the child is sedated when the ED finally receives a call back from telehealth after a long wait. The telehealth provider then instructs

the ED to allow the medications to wear off before giving a consult. "Then, you have an agitated child again. It can become a vicious cycle," Sacchetti observes.

EDs often lack immediate access to crisis personnel, psychiatry, or social services. If so, says Sacchetti, "telehealth can give you direction in terms of sedation, and in terms of disposition."

Sometimes, telehealth can arrange outpatient follow-up for the patient. "That is the best thing. That can mitigate a lot of your risk because now you've got a formal consultant helping out with the case," Sacchetti says.

Certain patients do need to be admitted, but many hospitals have closed their pediatric services.<sup>5</sup> "They really have nowhere to put the patient," Sacchetti laments.

But some agitated patients, or a patient with Asperger's or a patient on the autism spectrum, can receive adjusted medication doses and improve during the ED visit. If within 24 hours they are back to baseline, the ED can discharge the patient with a plan for follow-up care. "In the time it takes looking for the inpatient bed, they may get well enough to go home," Sacchetti reports.

This is similar to when asthmatic patients who are boarded in EDs receive nebulizer treatments and are well enough to go home before an inpatient bed becomes available. "It may not be medications. It may just be sessions talking to the telepsychiatrist," Sacchetti offers.

Telehealth consults are well-recognized as equivalent to in-person consults. "There's been enough data out there that it works effectively," Sacchetti says.

At times, the closest in-person consult may be hundreds of miles away, necessitating a transfer. Telehealth can prevent the need to transfer the child. "Telehealth can come up with a plan. It is very reasonable for the EP to feel much more comfortable discharging that patient because of that," Sacchetti adds. ■

## REFERENCES

1. Kalb LG, Stapp EK, Ballard ED, et al. Trends in psychiatric emergency department visits among youth and young adults in the US. *Pediatrics* 2019;143:e20182192.
2. Leeb RT, Bitsko RH, Radhakrishnan L, et al. Mental health-related emergency department visits among children aged < 18 years during the COVID-19 pandemic — United States, January 1–October 17, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1675–1680.
3. Lo CB, Bridge JA, Shi J, et al. Children's mental health emergency department visits: 2007–2016. *Pediatrics* 2020;145:e20191536.
4. Read K, Schwartz J, Martinez J, et al. Characterization of young children presenting to the emergency department for mental health complaints. *South Med J* 2020;113:116–118.
5. Chang WW. The rapidly disappearing community pediatric inpatient unit. *The Hospitalist*. July 12, 2018. <https://bit.ly/3buc0nR>

## COMING IN FUTURE MONTHS

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# Must-Have Documentation if 'Low-Risk' Chest Pain Patient Is Discharged from ED

**N**ot everyone with low-risk chest pain needs to be admitted to the hospital. Yet no EP wants to find out one of his or her patients suffered a heart attack shortly after leaving the ED.

"We still are overadmitting patients for chest pain. But this is better than underadmitting," says **Stephen Colucciello, MD, FACEP**, a professor of emergency medicine at Charlotte, NC-based Atrium Health. Colucciello says EPs can reduce risks by following two practices:

- **Ensure the patient really is low-risk by documenting an assessment with a validated scoring system.**

"There are many good scoring systems," Colucciello says.

These include the history, electrocardiogram, age, and risk factors (HEAR) score; the history, electrocardiogram, age, risk factors, and initial troponin (HEART) score; the Emergency Department Assessment of Chest Pain Score (EDACS); Troponin-only Manchester Acute Coronary Syndromes (T-MACS); and more.<sup>1-4</sup>

- **Ensure the timing of troponins is appropriate.** If pain started more than six hours before a blood draw for fourth-generation troponins, or more than three hours for high-sensitivity troponins, only then is a single troponin level reliable.

That is not the case if symptoms started more recently, are worsening, or are waxing and waning. For those cases, says Colucciello, "you must draw a second [delta] troponin. An increase of 20% over the first level likely indicates acute coronary syndrome."

EPs should draw at least a two-hour delta for fourth-generation troponins and a one-hour delta for

high-sensitivity troponins, according to Colucciello. Ordering a repeat ECG can clarify where things stand. If the ECG looks worse, the patient is exhibiting dynamic changes that could be ischemia. "If the repeat ECG looks better, that, too, is worrisome — meaning the patient was having ischemia when the first ECG was taken," Colucciello says.

The plaintiff's expert will look for two specific actions, says Colucciello: That a scoring system showed the patient was low-risk, and that a delta troponin was obtained appropriately. "Also, discuss why you do not believe the patient has another cause of potentially lethal chest pain, especially pulmonary embolism or aortic dissection," Colucciello adds.

EPs can use the Pulmonary Embolism Rule-out Criteria (PERC) score to eliminate PE or the Aortic Dissection Detection Risk Score (ADD-RS) to rule out aortic dissection. "The Aortic Dissection Detection Risk Score is very nonspecific," Colucciello notes.

The vast majority of patients with severe pain do not experience aortic dissection. "However, sudden severe pain, especially migrating to the back, is worrisome, as is an abnormal chest X-ray that suggests a mediastinal abnormality," Colucciello cautions.

Many ED charts do not include any information on scoring methods that were used, says **David Sumner, JD**, a Tucson, AZ, medical negligence specialist with a multistate trial practice.

Plaintiff attorneys will make an issue of any cardiac risk factors that were not specifically documented. That includes current smoking or vaping, smoking history, hypertension, high cholesterol, low

HDL, diabetes, obesity, COPD, COVID-19 exposure, peripheral vascular disease, heart valvular irregularities such as aortic stenosis, history of prior myocardial infarction or angina, family history of early onset coronary artery disease, or history of past percutaneous interventions or bypass.

"Plaintiffs' attorneys highlight key omissions or errors in the ER record to challenge the overall veracity of the record," Sumner explains.

EP defendants will not recall the history they obtained by the time a deposition happens months or years later. Instead, EPs will be relying on the record to defend the workup and management. "Sloppy, incomplete, or inaccurate records connote a lack of attention to detail and mistake-prone care and treatment — a damaging circumstance when you are relying entirely upon the chart for your defense of the ER management," Sumner warns.

Even if the patient is low-risk, with no prior cardiac history, "you still need pulse oximetry, ECG, and troponins," Sumner says.

If there is no evidence on ECG of STEMI, NSTEMI, suspicious T wave changes, or emerging Q waves; if the troponin shows no suggestion of ongoing ischemia or recent injury; if the patient has no risk factors — and all this is well-documented, the EP "should be OK, even if the patient is discharged from ER and later has a cardiac event," Sumner says.

The defense could argue convincingly that everything possible occurred to detect the condition at the time of the ED visit. Sumner says that in low-risk chest pain cases, these practices are especially helpful to the ED defense:

- Repeat the ECG after a period of observation if the test reveals ambiguous, unusual, or equivocal findings.
- Request cardiology confirmatory interpretation of any uncertain ECG findings.
- Do not discharge the patient if the vital signs show blood pressure derangement or unresolved tachycardia or bradycardia.
- Try to obtain prior ECGs for comparison.

Plaintiff attorneys will argue the chest pain patient was discharged prematurely if there are any unresolved or uncertain issues as to vital signs, labs, or ECGs. That includes the patient's COVID-19 status. "COVID-19 has placed patients at risk for cardiovascular inflammatory syndromes," Sumner observes.

This means ED charts should include inquiries on whether the patient has ever tested positive for COVID-19 or was recently

exposed to COVID-19, even if the patient's current COVID-19 status is unknown. "Given the reality that cardiac symptoms could be the first expression of symptomatic COVID, I would recommend COVID testing if [that] is feasible, especially rapid testing," Sumner offers.

The arteritis and prothrombotic states that sometimes accompany COVID-19, even in ostensibly mild cases, put patients at substantial risk for adverse coronary events. The cardiac manifestations of COVID-19 can occur even in younger patients with few or no comorbidities.<sup>5</sup>

EPs are going to need to document this risk factor also was considered. "What is important is to document that COVID was in the differential, and that a reasonable, focused history on COVID issues was obtained," Sumner says. ■

## REFERENCES

1. Otsuka Y, Takeda S. Validation study of the modified HEART and HEAR

scores in patients with chest pain who visit the emergency department. *Acute Med Surg* 2020;7:e591.

2. Moumneh T, Sun BC, Baecker A, et al. Identifying patients with low-risk of acute coronary syndrome without troponin testing: Validation of the HEAR score. *Am J Med* 2020 Oct 27;S0002-9343(20)30906-2. doi: 10.1016/j.amjmed.2020.09.021. [Online ahead of print].

3. Mark DG, Huang J, Kene MV, et al. Automated retrospective calculation of the EDACS and HEART scores in a multicenter prospective cohort of emergency department chest pain patients. *Acad Emerg Med* 2020;27:1028-1038.
4. Body R, Almarshali M, Morris N, et al. Diagnostic accuracy of the T-MACS decision aid with a contemporary point-of-care troponin assay. *Heart* 2019;105:768-774.
5. Spencer R, Choi NH, Potter K, et al. COVID-19 and the young heart: What are we missing? *World J Pediatr* 2020;16:553-555.



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# New ED-Specific Trigger Tool Identifies Most Important Adverse Events

An automated ED “trigger tool” helps clinicians identify the most important adverse event cases for chart review, according to the authors of a recent analysis.<sup>1</sup>

“This study was motivated by our observance of the very low yield of traditional approaches for detecting adverse events in the ED,” says

**Richard T. Griffey, MD, MPH**, the study’s lead author.

The typical approach is to review all ED records that meet specific criteria: death within 24 hours of an ED visit, upgrades in care from the floor to an ICU, or return visits to the ED that resulted in the patient’s admission to the hospital.

“While there is no real gold standard for determining the true ED adverse event rate, trigger tools have demonstrated superior results for this purpose,” says Griffey, professor and associate chief of the department of emergency medicine at the Washington University School of Medicine in St. Louis.

Usually, a nurse screens a random selection of records for the presence of triggers that make it more likely an adverse event is present. From there, the nurse reviews only records with triggers for the presence of adverse events. Griffey and colleagues noted the Institute for Healthcare

Improvement’s Global Trigger Tool contains only two triggers related to ED care.

“That prompted our interest in developing a trigger tool specifically for the ED,” Griffey reports.

The researchers set out to develop a tool in which the triggers are based on observed associations with the presence of adverse events. They also wanted to make the most out of querying data from the electronic health record.

“Our thought is that this might, in large part, replace the traditional review approach,” Griffey offers.

The patient safety movement emphasizes the need to focus on detecting harm — ideally, preventable harm — rather than just errors. Instead of remaining hidden, adverse events should be identified and shared.

“In this case, it is not that adverse events were being hidden, but rather that the tools for identifying adverse events are blunt, low-yield, and outdated,” Griffey explains.

The ED Trigger Tool (EDTT) is more efficient than other trigger tools to date, says Griffey, thanks to the automated screening for the presence of triggers.

For example, if a computer screening for the trigger “diphenhydramine

administration” is positive, it is strongly associated with an occurrence of an allergic reaction. Rather than randomly selecting a small sample of records to screen for the presence of triggers, then reviewing those cases with triggers present, all records with triggers are identified for a designated period (e.g., the previous month).

“Then, we apply a filter of sorts to identify those visits at highest risk for adverse events based upon the number of triggers present and their weights, or strengths of association with adverse events,” Griffey reports.

A set of triggers (including vital signs, lab values, medications, orders, and procedures) identifies a much broader range of adverse event types than looking at all records that include one specific trigger (e.g., deaths within 24 hours).

“Using the EDTT to identify areas for improvement, we aim to improve patient safety, which could have a meaningful impact on liability,” Griffey says. ■

## REFERENCE

1. Griffey RT, Schneider RM, Todorov AA. The emergency department trigger tool: A novel approach to screening for quality and safety events. *Ann Emerg Med* 2020;76: 230-240.

# Artificial Intelligence Coming to EDs to Improve Stroke Diagnosis

**A**rtificial intelligence (AI) is considered a promising tool to improve stroke diagnosis in the ED. “Our team is leading the development of such models to be used in real time in clinical settings,” reports **Ramin**

**Zand**, MD, an associate professor of medicine and neurology at Geisinger Health System in Danville, PA.

Strokes, especially posterior circulation strokes, are associated with significant diagnostic error in the

ED.<sup>1</sup> “Mainly, this is because some of the signs and symptoms may be misleading, and the ED provider may not request a consult with neurology,” Zand explains. Machine learning models can be designed to capture

subtle signs of stroke and assist ED providers in catching stroke patients who might otherwise go undetected. Regulatory agencies, including the FDA, are starting to guide the creation of AI systems.<sup>2</sup> Still, the best standard of an AI-driven triage system for stroke must go further, according to Zand.

The authors of a recent paper offer a framework for a decision support system using AI and clinical data, in combination with patients' presenting symptoms, to support ED providers in diagnosing stroke.<sup>3</sup> As end-users of the tool, ED providers' contribution

is "invaluable. As a matter of fact, a successful implementation would not be possible without having ED providers' inputs and direct involvement," says Zand, one of the paper's authors.

The goal is for AI models to "give ED providers a better, more comprehensive picture of the patient to empower them to make more informed decisions," Zand adds. ■

## REFERENCES

1. Tarnutzer AA, Lee SH, Robinson KA, et al. ED misdiagnosis of cerebro-vascular events in the era of modern neuroimaging: A meta-analysis. *Neurology* 2017;88:1468-1477.
2. U.S. Food & Drug Administration. Proposed regulatory framework for modifications to artificial intelligence/machine learning (AI/ML)-based software as a medical device [SaMD]: Discussion paper and request for feedback. 2019. <https://bit.ly/36mHxHm>
3. Abedi V, Khan A, Chaudhary D, et al. Using artificial intelligence for improving stroke diagnosis in emergency departments: A practical framework. *Ther Adv Neurol Disord* 2020;13:1756286420938962.

## Vascular Complications Common Allegation in Lawsuits Against ED Nurses

Lawsuits identifying nurses as the primary provider in the ED were rare overall (408 of more than 54,000 claims), according to an analysis of medical malpractice claims data gathered between 2007 and 2016.<sup>1</sup>

"Medical malpractice data can be used to target patient safety efforts in healthcare," says **Laura Myers**, MD, MPH, CPPS, the study's lead author and a research scientist at Kaiser Permanente Northern California.

Previous research identified the issues arising most commonly in medical malpractice claims involving critical care physicians.<sup>2</sup> "But little has been published describing claims in which nursing was the primary provider in the claim," Myers notes.

Myers and colleagues analyzed claims with nursing identified as the primary provider in a large database of paid and unpaid malpractice claims. They examined three specific settings: The ICU, the ED, and the OR.

"These locations were used because they are all fast-paced, high-stakes settings," Myers reports.

Malpractice claims in the three settings each featured distinct themes in terms of harm severity, allegations, final diagnosis, and contributing factors. "Understanding the themes of the harm events that arise in a given location can best direct patient safety efforts to prevent similar events from happening in the future," Myers offers. Some results from the claims:

- Claims involving ED nurses most commonly resulted in only temporary harm (55%) and less commonly involved a procedure (28%) vs. claims from the ICU and OR.
- Claims involving ED nurses were less likely to be paid on behalf of any defendant.
- The vast majority of claims involving nurses in the ED (93%) named the hospital as a co-defendant.

"Because patients in the emergency department have such a wide variety of diagnoses, it wasn't clear what to expect in terms of the most common diagnosis," Myers says.

As she and colleagues expected, decubitus ulcers was the most common diagnosis in the ICU claims.

They were not sure what to expect from the ED claims. "As it turns out, vascular complications were quite common in the emergency department, which was an interesting finding," Myers says.

Further research is needed to understand what types of vascular complications occur in claims involving ED nurses. It is unclear whether the claims involved IV infiltration, thrombophlebitis, pain caused by multiple sticks, or inadvertent arterial placement. "Prevention efforts might include procedural training, integration of ultrasound in IV placement, or escalation of patients with difficult access to providers who specialize in IV access," Myers says. ■

## REFERENCES

1. Myers LC, Heard L, Mort E. Lessons learned from medical malpractice claims involving critical care nurses. *Am J Crit Care* 2020;29:174-181.
2. Myers LC, Skillings J, Heard L, et al. Medical malpractice involving pulmonary/critical care physicians. *Chest* 2019;156:907-914.

# Substance Abuse and Suicidal Ideation Commonly Coexist in ED Patients

Many ED patients who present with suicidal ideation also had been diagnosed with substance abuse and psychiatric disorders, according to the authors of a recent study.<sup>1</sup>

"In my practice experience, we see a lot of patients who have both substance abuse and suicidal ideation, which led to my interest in the relationship between the two," says **Allison Tadros**, MD, FACEP, the study's author and a professor of emergency medicine at West Virginia University.

Tadros and colleagues reviewed charts of 427 ED patient visits for suicidality that occurred from October 2016 to March 2017. Ninety-two percent had received a psychiatric diagnosis. Fifty-one percent had received more than one such diagnosis. Fifty-eight percent of patients had substance abuse disorders. About half patients had visited the ED three or more times in the prior year.

Suicide decedents are disproportionately likely to have visited an ED in the prior months.<sup>2</sup> "Less was known about whether patients with suicidal ideation, but not self-harm, are also at increased risk of suicide," says **Mark Olfson**, MD, MPH, professor of psychiatry, medicine, and law at Columbia University Irving Medical Center.

To learn more, researchers reviewed ED records of 648,646 patients who visited a California ED from 2009 to 2011. ED patients with deliberate self-harm or suicidal ideation were at a substantially higher risk of suicide (and other mortality) in the year after their visit.<sup>3</sup>

Rates of death from suicide were higher among men, people age 65 years or older, and non-Hispanic

white patients. The results confirm that in addition to self-harm, suicidal ideation without self-harm is a marker for higher risk of suicide. "Predicting suicide and suicidal behavior at the individual patient level is extremely difficult, given the uncommonness of these events, even in high-risk patients," says Olfson, one of the study's authors.

Access to and quality of locally available mental health services are outside the control of ED clinicians. "However, appropriate discharge planning is a key aspect of the emergency management of this patient population," Olfson adds.

Researchers were motivated by a desire to approach suicide risk with the same tools and approaches found to be helpful in other areas of medicine. "Cancer patients are entered into a data tracking system from the day they are diagnosed, literally.<sup>4</sup> We, in various ways, follow cancer patients from that day forward. And we do this for all cancer patients, in all settings," says **Michael Schoenbaum**, PhD, senior advisor for mental health services, epidemiology, and economics at National Institute of Mental Health.

Tracking patients' experience over time allows researchers to improve outcomes. In heart surgery, there are similar systems for tracking patients' outcomes even after they have left the hospital. "It struck us that we could, but generally don't, do the same kinds of tracking for people with suicide risk," Schoenbaum says.

Outcomes of all the people who come to EDs with suicide risk, overdose, intentional self-harm, or nonfatal intentional overdose are not really tracked in any consistent way. "We thought we should try to do

that for suicide risk or overdose risk, and look at the patterns of survival after such ED visits, in essentially the same way that the cancer community and heart surgeons routinely track survival," Schoenbaum says.<sup>5</sup>

Investigators found people who came to California EDs with deliberate self-harm or suicidal ideation recorded disproportionately high suicide rates. "In addition, they have a really high risk of dying from unintentional injury — accidents, including but not limited to accidental overdoses," Schoenbaum reports.

This group also is more likely to die by homicide. Researchers found the same was true for those who visited an ED for unintentional overdose. "When we looked at what happened to those people, they had tremendously higher risk of dying in the next year by overdose, but also much higher risk of dying by accident not involving overdose," Schoenbaum says.<sup>5</sup> "It is clinically important to recognize these overlapping patterns."

The goal in the ED is to stabilize the emergency. "It's important that [patients] leave the hospital alive, but we want more for them than that. One marker of what more we want for them is: Are they still alive a year later?" Schoenbaum says.

There are evidence-based interventions, both within the ED and after discharge. "Encouragingly, some of those are things that don't require an inpatient setting, and don't even require a psychiatrist," Schoenbaum says.

These include safety planning, which involves offering coping tactics, and is provided by clinical staff in the ED (e.g., a nurse or social worker).<sup>6</sup> If patients with opioid use disorder visit

EDs with a nonfatal overdose and receive medication during that initial encounter, they are much more likely to end up continuing the treatment.<sup>7</sup>

"That's an evidence-based intervention that can be done. But somebody has to provide the infrastructure for that to happen in the ED," Schoenbaum says.

For patients who visited an ED related to suicide risk, but are now back in the community, check-in texts or phone calls are another evidence-based intervention that can be handled by EDs. "We have a crisis. But we don't have the tools to drive QI," Schoenbaum says. "We need to figure out how to improve patient outcomes, and one way to do that is to start measuring outcomes." ■

## REFERENCES

1. Tadros A, Sharon M, Crum M, et al. Coexistence of substance abuse among emergency department patients presenting with suicidal ideation. *Biomed Res Int* 2020;7460701.
2. Ahmedani BK, Westphal J, Autio K, et al. Variation in patterns of health care before suicide: A population case-control study. *Prev Med* 2019;127:105796.
3. Goldman-Mellor S, Olfson M, Lidon-Moyano C, Schoenbaum M. Association of suicide and other mortality with emergency department presentation. *JAMA Netw Open* 2019;2:e1917571.
4. Enewold L, Parsons H, Zhao L, et al. Updated overview of the SEER-Medicare data: Enhanced content and applications. *J Natl Cancer Inst Monogr* 2020; 55:3-13.
5. Goldman-Mellor S, Olfson M, Lidon-Moyano C, Schoenbaum M. Mortality following nonfatal opioid and sedative/hypnotic drug overdose. *Am J Prev Med* 2020;59:59-67.
6. Stanley B, Brown GK, Currier GW, et al. Brief intervention and follow-up for suicidal patients with repeat emergency department visits enhances treatment engagement. *Am J Public Health* 2015;105:1570-1572.
7. D'Onofrio G, O'Connor PG, Pantalon MV, et al. Emergency department-initiated buprenorphine/naloxone treatment for opioid dependence: A randomized clinical trial. *JAMA* 2015;313:1636-1644.

## ED Boarding Prolongs Length of Stay for Trauma Patients

When ED boarding times of non-trauma patients were longer, trauma patients also stayed in the ED longer, according to a recent analysis.<sup>1</sup>

For every additional 10 minutes that non-trauma patients were boarded in the ED, the median length of stay for trauma patients extended by 7.8 minutes. This finding came as no surprise to researchers.

"We were living this every day. The study effectively confirmed what we already knew," says **David Ledrick**, MD, associate residency director and clinical clerkship director in the department of emergency medicine at Mercy St. Vincent Medical Center in Toledo, OH.

Ledrick and colleagues knew their ED was not the only department with this issue. "We wanted to offer other EDs with similar problems some insight in approaching them," Ledrick says. Several years ago, the Mercy St. Vincent ED was struggling with

patient throughput and satisfaction. Surging volumes led to more complaints.

"Hospital administration kept turning to us to 'fix the problem with the department,'" Ledrick recalls.

The ED leadership looked more closely at the issue by keeping statistics on nearly every aspect of a patient's stay. Soon, they discovered ED processes were not the problem. The real issue was the inability to move admitted patients upstairs.

"Given the number of boarders in the department, we were effectively running an ED out of an inpatient unit. In other words, the department couldn't be separated from the hospital," Ledrick reports.

The ED changed its processes to reduce the number of patients who left without being seen.

"As simple as it sounds, the solution was getting the patient in front of the doctor as soon as

possible," says **Gregory P. Hymel**, MD, FACEP, the study's lead author and assistant medical director of the ED at Mercy St. Vincent.

When the ED fixed this issue, door-to-doctor times and door-to-disposition times shortened significantly. Leave without being seen rates also declined sharply. "When the length of stay began to increase, we went back and evaluated the process again," Hymel says.

This re-examination revealed there was a specific reason for the longer length of stay: the time from the order to admit to the patient actually leaving the department. Armed with these data, leaders demonstrated the interconnectedness of the department and the hospital. "We were able to come up with some workable solutions," Ledrick says.

For the past several years, the ED has worked with hospital administrators to significantly reduce

delays. Prior to the process change, the door-to-doctor time was 13 minutes.

"We were able to decrease this time to six minutes," Ledrick reports. Currently, there is a weekly, hospitalwide meeting to identify changes that can lower boarding rates

in the ED. It helps that the ED had addressed this issue already from the perspective of a department within a hospital. "We took this on as an issue of a department within a department," Ledrick explains. "Not surprisingly, we found a similar dynamic." ■

## REFERENCE

1. Hymel G, Leskovan JJ, Thomas Z, et al. Emergency department boarding of non-trauma patients adversely affects trauma patient length of stay. *Cureus* 2020;12:e10354.

# Home Monitoring to Determine Hospitalization Needs Among Discharged COVID-19 Patients

**S**ome COVID-19 patients visiting EDs are not sick enough to be admitted to the hospital, but that could change shortly after discharge.

Researchers wanted to see if patient-reported oxygen saturation levels of less than 92% could identify the need for hospitalization.<sup>1</sup>

"One criterion that became a clear indicator for admission at the beginning of the pandemic was hypoxia," says **Sonia Shah**, DO, chief resident of emergency medicine at Swedish Hospital in Chicago.

However, not all patients were hypoxic when they came to the ED. Many people showed only mild symptoms or no symptoms at all. "Before telemedicine became more popular, many of the patients within the population that we served did not have easy access to primary care physicians who could follow up on them after an ED visit," Shah notes.

Portable home pulse oximeters seemed like a possible solution;

patients could monitor themselves. "But there was no data on how well it would work to predict the need for future hospitalization in patients with COVID-19, or even people with viral pneumonias," Shah says.

A group of 77 patients who tested positive for COVID-19 (and who were discharged home from the ED) received a home pulse oximeter and learned how to use it. Patients were told to record oxygen saturation levels every eight hours and return to the ED if they saw levels of less than 92%. Of this group, 22 ended up coming back to the ED and were hospitalized. "Our findings did surprise us. While the concept of silent hypoxia was only spoken of anecdotally, we had the evidence and data to prove that this was happening to COVID-19 patients at home who were otherwise asymptomatic," Shah reports.

Patients with resting home oxygen saturation levels of less than 92% were more likely to be hospitalized,

admitted to the ICU, and were at risk for acute respiratory distress syndrome and septic shock. Of those who were not hospitalized, one-third said if they did not have a pulse oximeter to check their levels at home, they would have returned to the ED. Those patients were reassured by home pulse oximetry readings and did not return to the ED. "Presumably, returning to the ED with normal pulse oximeter readings would not warrant admission unless patients had other concerning symptoms," Shah suggests.

Such a visit would use up PPE and increase ED providers' COVID-19 exposure. "Discharging patients with a low-cost tool to monitor their own health can improve patient safety outcomes," Shah concludes.

Some patients in the study returned to the ED specifically because of a persistently low pulse oximeter reading. Of the 22 patients who were admitted, some improved; others progressed to requiring



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supplemental oxygen and even mechanical ventilation.

"We found that it was only because of the home pulse oximeter reading that some patients sought medical attention earlier than they otherwise

would have, potentially preventing worse outcomes," Shah says. ■

## REFERENCE

- Shah S, Majmudar K, Stein A, et al. Novel use of home pulse oximetry

monitoring in COVID-19 patients discharged from the emergency department identifies need for hospitalization. *Acad Emerg Med* 2020 doi: 10.1111/acem.14053. Epub 2020 Jul 23.

## EDs See Decrease in Low-Severity Illnesses, More Advanced Imaging

**E**D care appears to have become more intense, according to an analysis of 35,490 visits in 2007 and 19,467 visits in 2016.<sup>1</sup>

"The motivation for the paper is to describe what we as ED clinicians have felt to some degree, which is that emergency care has greatly increased in intensity over the years," says **Shih-Chuan (Andrew) Chou**, MD, MPH, SM, one of the study's authors and an instructor at Harvard.

Chou and colleagues observed a decline in low-severity illnesses and fewer privately insured and uninsured patients. Concurrently, they found a substantial increase in the proportion of Medicaid patients, more advanced imaging and blood tests, and more patients receiving four or more medications. "Patients are older, have more comorbidities, and generally require more care, including medications, diagnostic testing, and procedures," says Chou, attending physician in the department of emergency medicine at Brigham and Women's Hospital in Boston.

Both the patients and the care they require are more complex. "EPs are, in some ways, taking on a higher overall risk of patients suffering from adverse events," Chou says.

On the other hand, previous research has shown improved mortality over time for ED patients, whether they were admitted or discharged.<sup>2</sup> "Whether the risks

from having an increasingly complex patient population are truly mitigated by more intense use of advanced imaging or other costly studies often associated with defensive medicine remains unclear," Chou reports.

Another group of investigators studied whether advanced imaging use during ED visits is linked to fewer ED visits resulting in hospital stays.<sup>3</sup> "Hospitalization rates among ED visits have been declining. There has been speculation that it is because we are providing more intensive care in the ED, and thus allowing patients to be discharged," says Chou, who served as lead author on this study.

The authors wanted to know if ED patients undergoing CT/ MRIs experienced a larger decrease in admission rates than those who did not receive imaging. Researchers analyzed data from the National Hospital Ambulatory Medical Care Survey to examine changes in ED hospitalization rates from 2007-2008 and 2015-2016, and compared ED visits with or without advanced imaging (CT, MRI, and ultrasound).

Admission rates for ED visits with and without advanced imaging were not significantly different. "Overall, advanced imaging seemed to have fairly little impact on the trend of decreasing ED-to-hospital admissions," Chou observes.

Patients age 65 or older, non-Hispanic whites, women, and patients

with Medicare were more likely to receive advanced imaging. "Perceived litigation risk has been often cited as one of the top reasons for ordering low-value imaging in many settings, including the ED," Chou notes.

Higher costs and more radiation exposure (and hospitalizations) probably could have been avoided in many cases. Yet EPs know it is possible they will be sued for failing to order a diagnostic test. That is an important consideration for future medical malpractice reforms. "Clinicians should not be penalized for making reasonable recommendations against obtaining tests that often are not indicated, and patients ended up with an unexpected outcome," Chou says. ■

## REFERENCES

- Chou SC, Baker O, Schuur JD. Changes in emergency department care intensity from 2007-16: Analysis of the National Hospital Ambulatory Medical Care Survey. *West J Emerg Med* 2020;21:209-216.
- Burke LG, Epstein SK, Burke RC, et al. Trends in mortality for Medicare beneficiaries treated in the emergency department from 2009 to 2016. *JAMA Intern Med* 2019;180:1-9.
- Chou SC, Nagurney JM, Schuur JD, et al. Advanced imaging and trends in hospitalizations from the emergency department. *PLoS One* 2020;15:e0239059.



# ED LEGAL LETTER

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## CME/CE QUESTIONS

- 1. Which raised the odds of admission in young children with a mental health complaint?**
  - a. No previous psychiatric diagnosis
  - b. No family history of psychiatric illness
  - c. Chief complaint of suicidal ideation
  - d. Main complaint of a non-mental health condition that was later found to be a psychiatric diagnosis
- 2. Which is recommended to lower risks of chest pain patients discharged from the ED?**
  - a. Documenting assessment with a validated scoring system
  - b. Relying on a single troponin level if symptoms are waxing and waning
  - c. Ordering a repeat ECG only if symptoms are worsening
  - d. Avoiding discussion in the chart on why the EP does not believe the patient has another serious cause of chest pain
- 3. Which is true regarding patients with suicidal ideation?**
  - a. Most had at least one other psychiatric diagnosis.
  - b. Few abused illicit substances.
  - c. Patients had no higher risk for suicide after discharge than the general population.
  - d. Most recorded one or zero ED visits in the previous year.
- 4. Which did a study on ED care intensity changes from 2007 to 2016 reveal?**
  - a. More patients are presenting to EDs with low-severity illnesses.
  - b. There are more privately insured patients.
  - c. There is a decrease in the proportion of Medicaid patients.
  - d. More patients receive at least four medications.

## CME/CE OBJECTIVES

After completing this activity, participants will be able to:

1. Identify legal issues related to emergency medicine practice;
2. Explain how the legal issues related to emergency medicine practice affect nurses, physicians, legal counsel, management, and patients;
3. Integrate practical solutions to reduce risk into daily practice.