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The Official Publication of the UCA and CUCM

CLINICAL **cme**

## From a Neck Pain Case to a Malpractice Case

*Where Did It All Go Wrong?*

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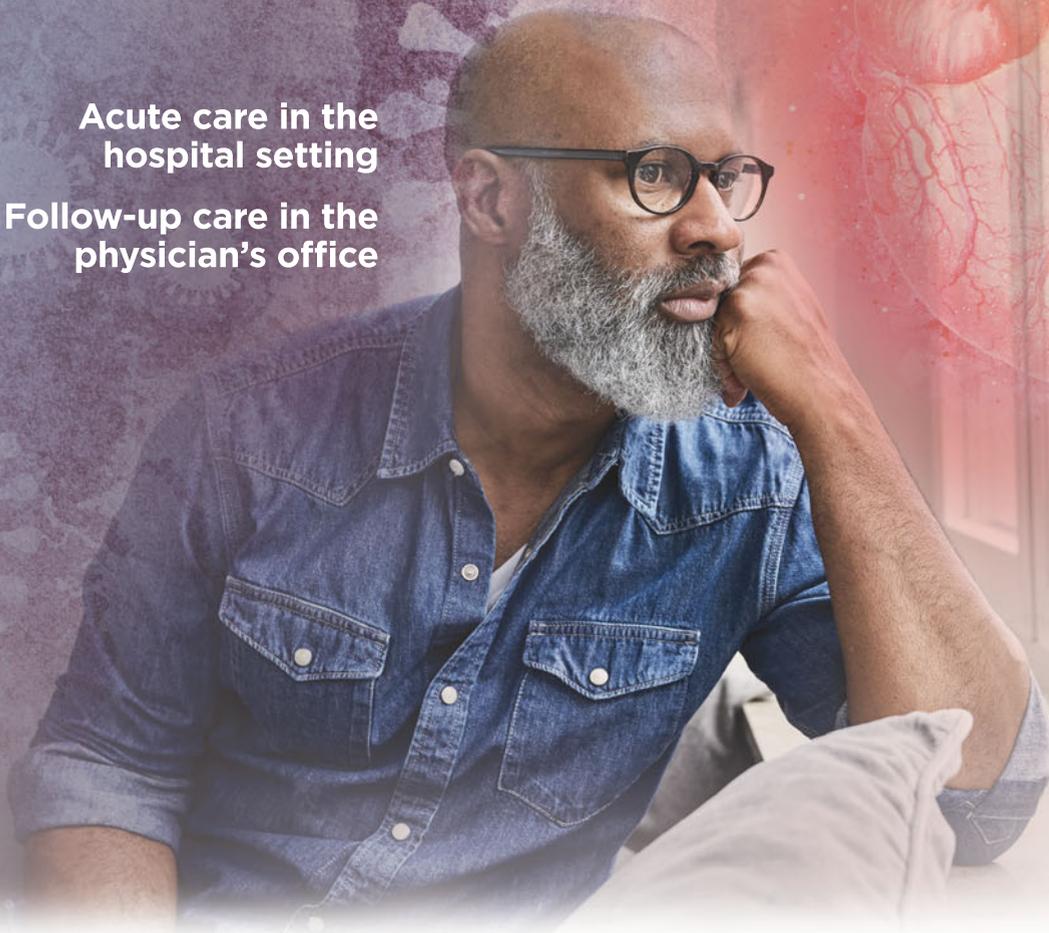
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# An Underrecognized Epidemic: Toxic Positivity in Medicine



A colleague, Dr. Mitchell we'll call him, told me about a PA that he was supervising recently who made a great catch in a patient with a swollen, blue finger: Achenbach syndrome. When the PA presented the presumptive diagnosis, Dr. Mitchell, unfamiliar with the condition, had to Google it before seeing the patient. Our PA was right, though. The patient walked out of the clinic, happy to have a benign explanation for her symptoms, the PA beamed with pride at his diagnosis, and Dr. Mitchell sat wondering how many cases of Achenbach he'd missed over the years.

That's how it works, though. We might be seeing case after case of a certain disease, but until we learn its name and presenting symptoms, we'll never identify the pathology. I'll confess this happened to me recently, as well, and the number of cases I've seen since learning about the condition are staggering. The diagnosis: *toxic positivity*.

Allow me to explain.

The arrival of a new year naturally forces us to take stock. What I've realized this year is that being a doctor is harder now than ever before in my career. Medicine as a science may have seen impressive advancements over recent years—the rapid development of new vaccine technology against a novel human pathogen chief among them—however, medicine as a practice undoubtedly has become much more difficult.

In urgent care, we saw rapid resolution of the low patient volumes seen early in the pandemic; a trend that had some of us (myself included) quite worried. It seems silly in retrospect and like a good problem to have nowadays. Caring for high volumes of frustrated patients who may or may not be spewing particles of a deadly virus and who can't seem to access healthcare in any other setting has become the daily status quo. It's exhausting.

If you can relate to this feeling, you're not alone. Approximately 20% of healthcare workers have left their jobs since the beginning of the pandemic.<sup>1</sup> While the reasons behind each departure were specific to the individual, the trend speaks to a widespread sense that the practice of medicine has gotten significantly harder. The days of the "healthcare worker as hero" narrative seem to be firmly behind us.



But if you're reading this, I suspect you're among the vast majority of medical providers who've chosen (for now at least) to push on despite the challenges. This deserves recognition. However, it seems that patients are not the only ones who undervalue the sacrifices clinicians continue to make on a daily basis just by showing up at work. I've heard countless complaints from colleagues of a pervasive sense of being underappreciated by those tasked with supporting their ability to practice medicine: their administrators.

Based on the stories they share, these complaints are well founded. I've seen providers asked to work more shifts, longer shifts, and see more patients, faster without any commensurate increase in pay or acknowledgment of the tremendous toll this has taken (or even that fatigue might be expected at all).

Ingratitude from patients is one thing. Caring for our patients is like caring for our children. We don't expect abundant or effusive expressions of gratefulness from them, but a heartfelt one can make our day.

Lack of appreciation from healthcare administrators is far more disconcerting. It belies a certain blindness to our daily struggles that reveals a problematic lack of empathy—especially from those who so consistently remind us to show more compassion towards our patients. Austerity staffing measures were tolerable when patients were staying at home. But now that volumes (and revenues) have soared, compelling a clinician's optimism or stiff upper lip strikes a decidedly dissonant chord.

*“Healthcare workers trying to cope with burnout, stress, or moral injury can contact the National Alliance on Mental Illness HelpLine for confidential support at 1-800-950-6264 between 10 AM and 8 PM (Eastern).”*

Psychologists refer to this phenomenon as *toxic positivity*; this is actually the epidemic that is decimating the healthcare workforce, not COVID. Optimism, when self-inspired, offers tremendous benefits for mental health. Conversely, optimism imposed by others has a pernicious effect on psychological well-being and reflects the polar opposite of compassion.<sup>2</sup> And this forced optimism comes almost exclusively from above and not our flanks.

If you're like me, toxic positivity may be new to your vernacular, but you've certainly experienced it. Those practicing toxic positivity ask us to deny or repress our negative emotions and focus on the woefully insufficient “good” in a situation. And unlike Pollyanna, people don't respond well when they're told they should play “the glad game.”

An example may be helpful.

Administrators commonly blast emails to the entire staff encouraging feelings of pride after a complementary patient review is received, while simultaneously leaving providers to rely on their own resilience to cope with the much larger constituency of rude and demanding patients.

Worse still, if any of those disgruntled patients proceeds to post uncomplimentary feedback online, your upbeat administrator's sunny disposition will most likely evaporate when they approach you to discuss the case.

Practices such as these are based in callousness and obliviousness. An unexpected pizza delivery for lunch does not compensate for month upon month of moral injury. In fact, like an absentee parent returning at Christmas with a gas station-bought action figure, it's usually more insulting than no gift at all.

The psychological effects of toxic positivity are many—and none of them are good. Victims of toxic positivity commonly suffer from guilt or shame because they're experiencing negative emotions that they're told they shouldn't have. Alternatively, people may repress their emotions and become numb and resigned.<sup>3</sup> When these negative effects occur, they're rarely restricted to work-life. And this explains much of the exodus from healthcare: if your profession demands your humanity, people are left to choose between their job and their life.

In recent years, toxic positivity has largely been a silent killer of healthcare careers. I believe much of this is because

the disease is under-recognized. Like Dr. Mitchell's experience with Achenbach syndrome, it's only after you've learned the name of the pathology and its symptoms that you can hope to make an accurate diagnosis. Until the problem is appropriately identified and acknowledged, there is little hope for cure.

So, if you work in administration and realize that you're guilty of practicing toxic positivity, replace token gestures with genuine expressions of gratitude. Your staff is more likely to push forward if the harsh realities of healthcare work at this moment in history are acknowledged.

Clinicians are a resilient and self-motivated bunch. And when we are struggling, we don't need forced optimism. We need real support.

Finally, and most importantly, if you're a healthcare worker and you're experiencing any of the distressing symptoms mentioned above or other symptoms of burnout, you're not alone; 60% to 75% of clinicians report experiencing adverse mental health consequences as a result of working during the pandemic.<sup>4</sup> And as much as grit is part of our group identity, there's wisdom, not shame, in asking for help when we need it.

The National Alliance on Mental Illness (NAMI) offers extensive, free resources for healthcare workers trying to cope with burnout, stress, and moral injury during this very difficult time. The NAMI HelpLine can be reached between 10 AM and 8 PM (Eastern) at 1-800-950-6264 for confidential support. In addition, 24/7 assistance is available by texting “SCRUBS” to 741741.<sup>5</sup>



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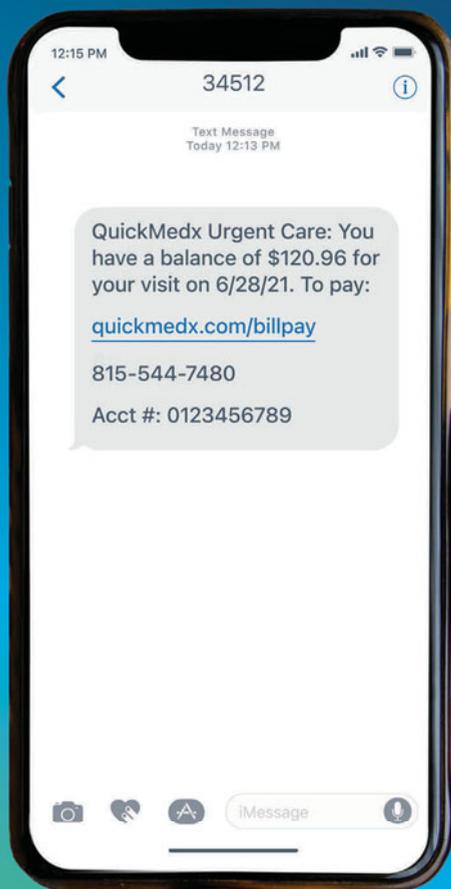
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## CLINICAL

### 13 A Legal Quandary: Poor Care... or Malpractice?

The difference between a good and bad outcome may be small, and rooted in lack of attention to seemingly minor nuances. They will come back to haunt you if you land in court, however.

*Michael Weinstock, MD and Charles Pilcher, MD*

## HEALTH AND LAW

### 19 Considerations for Urgent Care Operators on Equal Pay Legislation and Enforcement



As we see a shift to an overwhelming female workforce in urgent care, it is essential that urgent care operators understand the conditions of, and develop policies to be compliant with, employment laws requiring equal pay among genders.

*Alan A. Ayers, MBA, MAcc*

## ORIGINAL RESEARCH

### 23 Evaluation of Healthcare Disparities in Urgent Care: A Case Example for Bacterial Pneumonia



Healthcare disparities are an unfortunate fact of life. How they come into play in the urgent care setting is less certain, however. This study may help to answer such questions and even serve as a quality improvement tool.

*Derrick Murcia and Lindsey Fish, MD*

## CASE REPORT

### 28 How Useful Is Ultrasound in Diagnosing Extrauterine Gravidities?



Though ultrasound is less common than other imaging modalities in urgent care currently, if available it can provide essential data in the urgent care evaluation of gynecological and obstetrical problems.

*Andrew Alaya, MD, MSc and Harold Pelikan, MD*

## PEDIATRIC URGENT CARE

### 31 Time to Presentation for Acute Otitis Media During the COVID-19 Pandemic



At various times over the past 2 years, parents have hesitated to take their children to an urgent care center—even when the presumed diagnosis was acute otitis media for which the child needed an antibiotic.

*Emily J. Montgomery, MD; Brian R. Lee, PhD, MPH; Amanda Montalbano, MD, MPH; and Amanda Nedved, MD*

## NEXT MONTH IN JUCM

Scaphoid fractures are relatively common, especially among adults and athletes who fall on an outstretched hand. The consequences can be severe, however, with complications ranging from non-union to avascular necrosis and arthritis. As will be described in the February issue of *JUCM*, a high index of suspicion based on the mechanism of injury and clinical exam, followed by immobilization with delayed x-rays, can prevent these complications.

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## JUCM CONTRIBUTORS

Neck pain can seem like a pretty mundane complaint—on the surface. Let your attention remain on the surface and decline to dig deeper into the subtleties, nuances, and context, though, and you're likely to wind up with an overly simplified explanation and a diagnosis that doesn't benefit the patient. And that's the best-case scenario. The worst is that the patient experiences an overtly bad outcome, comes to the conclusion that it's your fault, and you wind up in court.

While you could reasonably say we're getting ahead of ourselves, the fact remains that this scenario plays out far too many times in urgent care (and other settings, of course). Read *A Legal Quandary: Poor Care...or Malpractice?* (page 13) by **Michael Weinstock, MD** and **Charles Pilcher, MD** and you'll see what we mean. You'll also be better prepared to prevent mistakes like the ones described in the representative case presented and to recognize the difference between unfortunate but unavoidable bad outcomes, plain-old poor care, and actual malpractice.

Dr. Weinstock is director of research and CME and an emergency medicine attending physician at Adena Health System; professor of emergency medicine, adjunct at The Wexner Medical Center at The Ohio State University; medical director, Ohio Dominican University Physician Assistant studies program; and senior editor, clinical content for *JUCM*. Dr. Pilcher has practiced in family medicine, emergency medicine, and urgent care, has also done medical missionary work, and produces a free newsletter called *Medical Malpractice Insights* (<http://madmimi.com/signups/124905/join>).

Oversights of another variety are at play whenever a patient doesn't get the level of care they need (and deserve) due to socioeconomic, racial, or geographical factors. They can occur in any setting, but of course we're most concerned with urgent care. So, we're grateful to **Derrick Murcia** and **Lindsey Fish, MD**, both from the University of Colorado School of Medicine, for allowing us to publish *Evaluation of Healthcare Disparities in Urgent Care: A Case Example for Bacterial Pneumonia* (page 23). Their study may serve as a quality improvement tool to assess whether these disparities persist in your urgent care clinic. In addition to her affiliation with Colorado, Dr. Fish practices at Denver Health's Peña Southwest Urgent Care Clinic.

The same concept holds true for equality between the sexes, although when it comes to equal pay for equal work it's a bit more quantifiable—and possible to legislate. Hence, adoption of the Equal Pay Act of 1963. With urgent care becoming more female-dominated, it is essential that operators are up to speed on their obligations not only from the standpoint of fairness and decency, but legally as well. Considerations for Urgent Care Operators on Equal Pay Legislation and Enforce-

ment, starting on page 19 lays it out very clearly, thanks to author **Alan A. Ayers, MBA, MAcc**, president of Experity Networks and senior editor, practice management for *JUCM*.

Understanding the best use of the tools at your disposal is essential for any healthcare professional. As more tools become available, your approach has to evolve. This is the situation urgent care may be in regarding ultrasound, as illustrated in this month's case report. As the title implies, *How Useful Is Ultrasound in Diagnosing Extrauterine Gravidities?* (page 28) reveals the relative value of an emerging urgent care technology in a specific clinical presentation. The authors, **Andrew Alaya, MD, MSc** and **Harold Pelikan, MD** are colleagues at Bronovo Hospital in The Hague, Netherlands.

Even very familiar urgent care presentations need a fresh look as practice conditions change, of course. Acute otitis media is a prime example. It's a very typical diagnosis in urgent care, but early in the COVID-19 pandemic many parents were hesitant to bring their children to an urgent care center. In essence, they spent what would have been viewed as a waiting period before beginning treatment at home, instead waiting to even see a provider. With the effects of that unknown, a team of authors from Children's Mercy Kansas City and the University of Missouri-Kansas City decided to conduct a study that ultimately served as the basis for *Time to Presentation for Acute Otitis Media During the COVID-19 Pandemic* (page 31). We appreciate **Emily J. Montgomery, MD**; **Brian R. Lee, PhD, MPH**; **Amanda Montalbano, MD, MPH**; and **Amanda Nedved, MD** for sharing their work with us.

The pandemic has forced urgent care to adapt in many ways—including how you bill for your services. COVID-19 testing and how to bill for it, for one, was an entirely new concept at the outset. A couple of years in, what's changed? You can find out by reading *Are Insurance Plans Still Waiving Cost-Sharing?* (page 48) by **Monte Sandler**, vice president, revenue cycle management for Experity.

Finally, in this month's Abstracts in Urgent Care (page 37), **Ivan Koay MBChB, FRNZCUC, MD** shares the most urgent care-relevant details of new literature concerning pediatric burns, the link between screen time and recovery from concussion, gastroenteritis in children, diagnosing giant cell arteritis, and more. Dr. Koay is an urgent care physician; Royal New Zealand College of Urgent Care Examiner; Education Faculty for the RCSI Fellowship of Urgent Care Medicine; and Head of Faculty, na hÉireann Royal New Zealand College of Urgent Care. ■

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# We're Getting the Band Back Together

■ LOU ELLEN HORWITZ, MA

This time, we really mean it. But I know how busy things have already gotten (again), so I want to convince you why you should find a way to join us for the UCA Annual Convention in April.

First, you need it. I bet your concept of self-care has completely disappeared in the wake of all you have done since we last saw each other, and I want to help you get it back. *Let us take care of you for just a few days.* We will plan your whole day and your meals and make sure plenty of your friends are around—all you have to do is come and enjoy.

Second, the content is going to be excellent, so you or your boss don't need to worry about the ROI. You will be glad you came.

Our Center Stage features two keynotes and two panel discussions.

Our opener is Kai Kight. Kai was a traditional classical violinist until his mother got cancer, which led him to begin composing his own music. He has spoken for Disney, Coca-Cola, and the Seattle Seahawks among others, and his message on Composing Your World is perfect timing for people like us in the midst of creating urgent care's future. Seeing him and hearing his message will be a uniquely gratifying experience.

Our first panel discussion delves into the Past, Present, and Future of Urgent Care. Our panel will look at how urgentology and urgent care delivery got to where we are today, where it looks like we are going, and how to make sure our path takes us to a place that we want to be.

Our second panel discussion takes on the Impacts of Climate Change on Health and whether urgent care has a role in reducing the increased morbidities resulting from climate change; and if so, what is that role?

Our closer is Paul Epstein. His presentation on Playing Offense seems tailor-made for urgent care. Paul became known as the go-to fixer for the NBA and NFL because he's mastered

the come-from-behind win. He'll send you home thinking about strategies that work universally for achieving victory.

Our Learning Experience Tracks will be different than in years past. We are leaving the basics behind. UCA has plenty of online learning resources if you are new to urgent care—so we are focusing the Convention on the finer points of success in operations and excellence in clinical practice. We will hear new ideas from some recent entries into urgent care, we'll look at thorny issues like unwanted turnover and operations vs clinical, and we'll tease out the sweet spots of performance. Clinically, we're focusing on advanced diagnostics and treatments in orthopedics, cardiology, radiology, OB, dermatology, and many of our more atypical patient presentations so you can further hone your skills.

In addition to "traditional" classes, we'll have two unique Best Practice opportunities through our new mock clinics. The medical mock clinic will let you evaluate, practice, and advance your clinical skills in hands-on work and role-play for difficult situations. The operations mock clinic will be hosted by Accreditation surveyors who will help you see if your center is up to standards and how to improve if it isn't. We'll also feature poster presentations on some of the most interesting clinical studies in urgent care. All Best Practice opportunities are included with Main Convention registration.

If that isn't enough for you, you can come in early and get more in a PreConvention Workshop on Saturday and Sunday which will focus on urgent care's smallest customers and UCA Accreditation preparedness. Our Clinical Workshops will advance your skills in caring for your pediatric patients. Our Operations Workshops will feature leaders from one of the largest pediatric urgent cares, presenting on managing the complexities of customer service that often accompany pediatric patients and their parents or guardians. Our last workshop is for anyone considering Accreditation in the future. Through a "simulated survey" we will take all the mystery out of how to get accredited.

I hope these details take the mystery out of whether you should join us! There's no better way to take care of yourself or your team than investing in your development. You've definitely earned it. ■



**Lou Ellen Horwitz, MA** is the chief executive officer of the Urgent Care Association.



# CONTINUING MEDICAL EDUCATION

**Release Date:** January 1, 2022

**Expiration Date:** December 31, 2022

## Target Audience

This continuing medical education (CME) program is intended for urgent care physicians, primary-care physicians, resident physicians, nurse-practitioners, and physician assistants currently practicing, or seeking proficiency in, urgent care medicine.

## Learning Objectives

1. To provide best practice recommendations for the diagnosis and treatment of common conditions seen in urgent care
2. To review clinical guidelines wherever applicable and discuss their relevancy and utility in the urgent care setting
3. To provide unbiased, expert advice regarding the management and operational success of urgent care practices
4. To support content and recommendations with evidence and literature references rather than personal opinion

## Accreditation Statement



This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Institute for Medical and Nursing Education (IMNE) and the Institute of Urgent Care Medicine. IMNE is accredited by the ACCME to provide continuing medical education for physicians. The IMNE designates this journal-based CME activity for a maximum of 3 *AMA PRA Category 1 Credits™*.

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*Member reported no financial interest relevant to this activity.*

### • Michael B. Weinstock, MD

*Member reported no financial interest relevant to this activity.*

### • Alan A. Ayers, MBA, MAcc

*Member reported no financial interest relevant to this activity.*

### • Steve Weinman, MSc, RN, CEN, TCRN

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# CONTINUING MEDICAL EDUCATION

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## A Legal Quandary: Poor Care...or Malpractice? (page 13)

- 1. Which of the following would be representative of a mechanical (as opposed to nonmechanical) nontraumatic neck pain?**
  - a. Osteolytic lesion
  - b. Cervical artery dissection
  - c. Peritonsillar abscess
  - d. Acute coronary syndrome with radiation of pain to the neck
- 2. Factors suggesting a strain etiology of neck pain include:**
  - a. Sudden onset while lifting or turning the head
  - b. Pain that is worse with range of motion
  - c. Pain that is worse with palpation
  - d. All of the above
- 3. Presence of fever, unintentional weight loss, worsened discomfort with exertion, lack of defined mechanism, and no pain with range of motion or palpation:**
  - a. Make it less likely that pain is due to a strain mechanism
  - b. Make it more likely that pain is due to a strain mechanism
  - c. Rule out nonmechanical etiology for neck pain
  - d. Rule out mechanical etiology for neck pain

## Considerations for Urgent Care Operators on Equal Pay Legislation and Enforcement (page 19)

- 1. The Equal Pay Act applies to businesses:**
  - a. That employ more than 40 workers
  - b. That employ more than 12 workers
  - c. With a workforce that is at least 30% female
  - d. All employers, regardless of how many workers they employ
- 2. Which of the following would be considered “exceptions” to the Equal Pay Act?**
  - a. A setting where pay is determined by seniority
  - b. A merit system
  - c. A setting in which pay is determined by quality of production
  - d. All of the above

## 3. What proportion of emergency physicians are women?

- a. 90%
- b. 74%
- c. 25%
- d. 16%

## How Useful Is Ultrasound in Diagnosing Extrauterine Gravidities? (page 28)

- 1. In the majority of cases of extrauterine gravidity (EUG), the pregnancy lies:**
  - a. In the ovarium
  - b. In the fallopian tubes
  - c. In the cervix
  - d. In the surrounding abdominal cavity
- 2. EUGs comprise what proportion of live birth pregnancies?**
  - a. 1%
  - b. 2%
  - c. 4%
  - d. 7%
- 3. In the urgent care setting, a positive pregnancy test in a woman with vaginal bleeding and/or abdominal pain should be followed by:**
  - a. Transport to the closest emergency room
  - b. Referral to the patient’s primary care physician or Ob/Gyn
  - c. Ultrasound to look for ectopic pregnancy
  - d. A retest to confirm the findings



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# A Legal Quandary: Poor Care... or Malpractice?

**Urgent message:** Failure to consider subtleties and the context in which a patient presents can lead to insufficient differential diagnoses and, therefore, mis- or missed diagnoses that leave the patient at risk for poor outcomes and the provider at risk for litigation.

MICHAEL WEINSTOCK, MD and CHARLES PILCHER, MD

Citation: Weinstock M, Pilcher C. A legal quandary: poor care...or malpractice? *J Urgent Care Med.* 2022;16(4): 13-15.

**B**ack pain is usually back pain, whether it's from a muscular strain or another self-limiting, non-serious cause. But there is potential danger lurking below the surface, ranging from renal cell carcinoma to acute pancreatitis to expanding or ruptured abdominal aortic aneurysm to a spinal epidural abscess (SEA).

The actual legal case described here highlights some of the ways we can be led astray—as well as some of the red flags which, if recognized, can help us avoid an adverse outcome and potential legal peril.

## The Case

The patient is a 44-year-old man with a past history of hepatitis C and a remote history of neck surgery with implanted hardware. He is otherwise healthy and is employed.

### Visit #1

He presents initially to his primary care physician with complaints of 3 to 4 days of headache, photophobia, and upper respiratory symptoms. On exam he has neck tenderness to palpation but there is no nuchal rigidity. He is discharged with a diagnosis of upper respiratory infection and instructed to use symptomatic management.

### Visit #2

Three days later, the patient has worsening symptoms and is seen in the emergency department. He has a



bedside evaluation and is diagnosed with viral URI and discharged.

### Visit #3

Four days later he presents to his primary care physician again, now with worsening headache, nausea and vomiting, and photophobia. He is given a prescription for oxycodone and discharged.

### Visit #4

**Author affiliations:** Michael Weinstock, MD, Adena Health System; The Wexner Medical Center at The Ohio State University; Ohio Dominican University; The Journal of Urgent Care Medicine. Charles Pilcher, MD, Medical Malpractice Insights – Learning from Lawsuits. Dr. Weinstock has no relevant financial relationships with any commercial interests. Dr. Pilcher produces a newsletter on the subject of medical malpractice.

*“Though the ED clinician did not think there was a bacterial meningitis (and was correct with no organisms seen and a negative CSF culture), they did not extend the differential to the epidural space; it was only by a positive blood culture that the SEA was suspected and diagnosed...ultimately too late.”*

The patient presents to urgent care with a temperature of 101.4°F, hallucinations, and neck stiffness. He is sent emergently to the ED with concern for meningitis.

#### Visit #5

The ED shares the concern for meningitis and performs lab work including a CBC and chemistry panel which both return normal. A lumbar puncture is performed and shows 692 WBCs (80% polys), but no organisms are seen. He is diagnosed with viral meningitis and discharged with MS-Contin and ondansetron.

#### Visit #6

The next morning, the CSF culture returns negative, but blood cultures done in the ED are positive for *Staphylococcus aureus*. He is called and quickly returns to the ED, where antibiotic therapy is started. After 2 days in the hospital, he develops lower extremity paresthesias, inability to stand, and urinary retention. A Foley is placed and measures 1000 cc of urine. A cervical MRI reveals a spinal epidural abscess at C5-6 in the area of the implanted hardware. Despite surgical drainage and decompression, he is left with permanent arm and leg weakness and inability to work.

### Neck Pain, Cervical Epidural Abscess, and the Legal Process That Followed

A lawsuit is filed, with allegations of failure to diagnose and delay of diagnosis. Before we see how the case was argued by each side, however, let's explore some facts on cervical epidural abscess.

Nontraumatic neck pain has many etiologies; one approach to differentiation is to classify as mechanical vs nonmechanical.

- *Mechanical* includes a muscular strain, arthritis, malignancy, cervical stenosis, cervical radiculopathy, osteolytic lesion, torticollis/extrapyramidal and spinal epidural abscess.

- *Nonmechanical* includes acute coronary syndrome, peritonsillar or retropharyngeal abscess, cervical artery dissection.

Factors suggesting a *strain* etiology include:

1. Mechanical – A strain-type mechanism (ie, sudden onset while lifting or turning head)
2. Subjective pain – Patient relates that pain is worse with range of motion
3. Objective pain – Pain is worse with palpation or when the patient is asked to move their neck

Factors which make strain *less* likely include presence of fever, unintentional weight loss, worsened discomfort with exertion (ACS), lack of defined mechanism, no pain with range of motion or palpation. Caution is warranted with patients with high risk factors, such as intravenous drug users (IVDU); for example, instead of asking *Do you use any drugs?* consider asking *Have you ever tried or experimented with injection drugs?*

The incidence of spinal epidural abscess is increasing; Artenstein, et al evaluated 162 patients with SEA compared with 88 controls and found:<sup>1</sup>

- The incidence of SEA increased three-fold from 2005 to 2015.
- Cases were likely to have comorbidities of IVDU, diabetes, or alcohol abuse.
- Fever was present in 62%.
- Urinary retention or incontinence was present only 6%–9% of the time.
- Cervical SEA had a duration of 6 days of pain on presentation, while SEA of the back had duration of symptoms of 7 days.<sup>1</sup>

Cervical epidural abscess is not a difficult diagnosis to make—provided that it is considered. Patel, et al evaluated 128 patients with diagnosis of cervical epidural abscess, with the following findings:<sup>2</sup>

- Although 100% had neck pain (site-specific pain), only 50% had fever and 47% had weakness.
- Risk factors included IV drug abuse (in 39%) and diabetes (22%); 23% had no risk factors.
- Most pathogens were *Staph* with 40% being methicillin-sensitive *Staph aureus* (MSSA) and 30% being methicillin-resistant *Staph aureus* (MRSA).

Davis, et al evaluated 55 patients over a 9-year period and found that 46 out of 55 (84%) had a diagnostic delay. Of the 55 patients, 45 (82%) had neurologic deficits. Risk factors included diabetes, IVDU, chronic liver or kidney disease, recent spine procedure or indwelling spinal hardware, recent spine fracture, indwelling vascular catheter, immunocompromised state, or other site of infection.<sup>3</sup>

## Legal

If most patients, per the study above by Davis et al, had a diagnostic delay, is there a standard of care to make the diagnosis? The answer is...maybe. Certainly a patient who presents with neck pain after a football injury with subjective pain with range of motion and localized muscular pain with palpation would not even have SEA in the differential. By extension, this would be a very difficult case for the plaintiff. But in a patient with risk factors, and without a mechanism (ie, without a viable alternative explanation for the pain), we should maintain an index of suspicion to delve deeply into the history of present illness; past history, including recent surgeries; social history (IVDU); and exam.

Was that done in the case above?

The plaintiff's case could be summed up as follows: *You should have admitted me and treated me with IV antibiotics as soon as you saw the CSF results. They were grossly abnormal. I had risk factors for SEA and you dismissed them. You should have done an MRI and found my abscess before it was too late. Now I'm disabled and can't work.*

The defense could reasonably counter, *You had symptoms for 2 1/2 weeks. They weren't the classic triad for SEA.*

## Discussion

Though both sides make a good argument, there are significant subtleties. Was there consideration of SEA and a medical decision-making (MDM) note detailing why this was *not* present? Were there findings suggestive of SEA which were discounted?

The best chance at a correct and timely diagnosis was on the fourth visit, when the patient was sent from the urgent care to the ED, only to have the ED send home a patient with a fever, "hallucinations," and a markedly abnormal CSF report. Though the ED clinician did not think there was a bacterial meningitis (and was correct with no organisms seen and a negative CSF culture), they did not extend the differential to the epidural space; it was only by a positive blood culture that the SEA was suspected and diagnosed... ultimately too late.

Remember, "If it's not in the differential, it won't be in the diagnosis."

## Was This Malpractice?

Over the course of the first three visits, this would have been an extremely difficult diagnosis to make. Though fever is a component of SEA, per the studies listed previously, fever is only present 50% to 62% of the time, only a little better than a flip of a coin. Without being a "fly on the wall" at these first three evaluations, it seems like the standard of care was met; there was an

*"The 'classic triad' for SEA (fever, back pain, and neurological symptoms) is present in less than 15% of patients. By the time all three are present, the chance to reverse neurologic damage is small."*

alternative reason for the patient's symptoms and symptomatic management was appropriate.

When the fourth visit rolled around, however, the patient was sent from urgent care to the ED; and this was the foundation for the litigation. Good job for doing the lumbar puncture, but without a consideration of SEA, we have "won the battle but lost the war." In fact, had SEA been in the differential, an LP would be contraindicated. It is up to the attorneys, the insurance company, and the jury to determine if the standard of care was met.

## The Legal Outcome

After more than 5 years of litigation, there was a large settlement, the details of which are confidential.

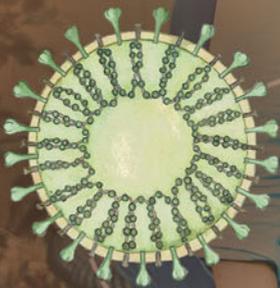
## Takeaways

- *Staph* is the most common cause of SEA and a rare cause of meningitis. The CSF was grossly abnormal and inconsistent with viral meningitis. A negative CSF culture with positive blood cultures is not bacterial meningitis.
- The patient was not a current IV drug user, but had risk factors including chronic liver disease (hepatitis C) and spinal hardware, placing him at a higher risk of SEA.
- Though this was a difficult diagnosis to make initially, when the patient returned with fevers and hallucinations a concern for not only bacterial meningitis but SEA could have been considered.
- The "classic triad" for SEA (fever, back pain, and neurological symptoms) is present in less than 15% of patients. By the time all three are present, the chance to reverse neurologic damage is small. ■

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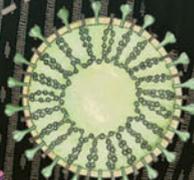
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# Considerations for Urgent Care Operators on Equal Pay Legislation and Enforcement

**Urgent message:** As we see a shift to an overwhelming female workforce in urgent care, it is essential that urgent care operators understand the conditions of, and develop policies to be compliant with, employment laws requiring equal pay among genders.

ALAN A. AYERS, MBA, MAcc

## Introduction

Many urgent care centers already pay the same hourly rate for all advanced clinical practitioners (PAs and NPs), but that “commoditizes” the work and eliminates any leverage an owner may have for individuals who have greater experience, credentials, or tenure with the organization. It also creates complexity related to current market wages, such as the issue of whether everyone’s pay must be increased the next time someone is hired at a higher rate.

This topic is especially important to urgent care centers where the workforce is predominately female. Today, 74% of physician assistants,<sup>1</sup> 90% of nurse practitioners,<sup>2</sup> and 90% of medical assistants<sup>3</sup> are women. (See **Figure 1**.) This is a change from when the workforce consisted primarily of physicians. Further, only 25% of emergency medicine physicians are female, and about 38% of new emergency medicine residents are women. As a result, the percentage of women in emergency medicine will continue to rise for some time.<sup>4</sup>

In this changing environment, urgent care operators must be aware of employment law concerning equal pay so they can take steps to assure compliance and prevent litigation.

## What Is the Equal Pay Act?

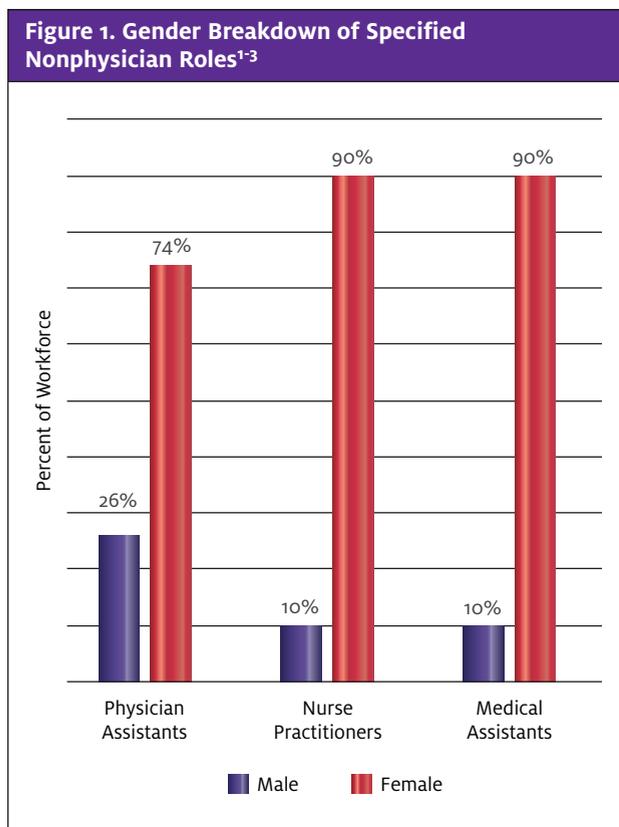
The Equal Pay Act of 1963<sup>5</sup> amended the Fair Labor Standards Act,<sup>6</sup> designed to abolish wage disparity based on sex. The Act was signed into law on June 10, 1963, by President John F. Kennedy. The Fair Labor Standards



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Act (FLSA) established minimum wage, overtime pay, recordkeeping, and youth employment standards affecting employees in the private sector and in federal, state, and local governments.<sup>6</sup> The Equal Pay Act prohibits sex-based wage discrimination between men and women in the same establishment who perform jobs that require substantially equal skill, effort, and responsibility under similar working conditions.<sup>5</sup>

Alan A. Ayers, MBA, MAcc is President of Experity Networks and is Senior Editor, Practice Management of *The Journal of Urgent Care Medicine*. The author has no relevant financial relationships with any commercial interests.



### To Whom Does the Equal Pay Act Apply?

The Equal Pay Act applies to all employers regardless of how many workers they employ. The law regulates the conduct of state, local, and federal governments, as well as most private employers.<sup>7</sup>

The Equal Pay Act—which is not gender-specific—does not require an intent to discriminate; thus, the fact that an employer did not know its actions were discriminatory is irrelevant. The remedies for an employee who successfully sues under the federal law are back pay and penalties.<sup>8</sup> Once an Equal Pay Act plaintiff proves their prima facie case, the burden of proof switches to the employer to prove the pay difference is the result of one of the four statutory exceptions.<sup>9-11</sup>

Those exceptions are found in settings where payment is made under a seniority system; a merit system; a system in which earnings are determined “by quantity or quality of production”; or a system “based on any other factor other than sex.”<sup>5</sup> Further, the law does not allow for an employer to “fix” a meritless wage differential by lowering the earnings of the more highly compensated employee.<sup>5</sup>

In addition to the federal law, many states also have

similar protections for employees and, in some cases, are more restrictive than the federal law in terms of the defenses that an employer can submit.

For example, since 1949, the California Equal Pay Act has prohibited an employer from paying its employees less than employees of the opposite sex for equal work.<sup>12</sup> California’s amended Equal Pay Act prohibits an employer from paying any of its employees wage rates that are less than what it pays employees of the opposite sex, or of another race, or of another ethnicity for “substantially similar work, when viewed as a composite of skill, effort, and responsibility, and performed under similar working conditions.”<sup>13</sup>

### How Can an Employer Assure Their Compliance with the Equal Pay Act?

To comply with the Equal Pay Act, an employer can’t pay a person of one gender who’s doing the same or substantially the same work as another employee of the opposite gender less money. Thus, an employer treats men and women equally by placing employees in positions in the same location that require equal skill, effort, responsibility, and job duties to be performed under similar working conditions.<sup>14</sup>

However, satisfying those requirements may be difficult for small businesses because of the fact that many employees regardless of gender perform more than one job or function. In these cases, the employer should document the reasons employees are doing the jobs and being paid the wages. Along the lines of the “four exceptions” described previously, a business owner can accomplish this by the following steps:

- Ensuring there’s a seniority system in place
- Adhering to a seniority system
- Implementing a merit system
- Measuring quantity and quality of production and including the results in employee earnings or wage incentive plans
- Any other factors or reasons not based on sex<sup>11</sup>

### Practical Considerations

#### Pregnancy

Federal laws prohibit compensation discrimination on the basis of pregnancy.<sup>15-17</sup> These laws also prohibit compensation discrimination on the basis of race, color, national origin, religion, sex (including pregnancy, childbirth and related medical conditions, transgender status, gender identity, sexual orientation, and sex stereotyping), age (over 40), marital status, political affiliation, and disability.<sup>18</sup>

## Need-based pay

An urgent care owner may offer a father with three children and a stay-at-home wife a higher pay rate than other providers in the same role because he “needs” the money. Or an urgent care owner retains a poorly performing employee, a single mother of a child with special needs, despite separating other providers whose performance wasn’t quite as problematic. However, if those employers receiving less pay can make a prima facie case of wage discrimination, the urgent care may be found liable for damages. In fact, the claimant may have an open-and-shut case if the employer openly admits that pay for some employees is based on need rather than objective criteria.<sup>19</sup>

Again, to bring a claim under the Equal Pay Act, an employee must show that two employees are receiving different wages for performing substantially equal work in the same establishment and under similar working conditions.<sup>20</sup>

## Takeaway

Urgent care owners should implement and adhere to a seniority system and a merit system. They should measure the quantity and quality of an employee’s work, and not consider any factors or reasons that are not based on sex.<sup>21</sup> ■

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## The Equal Pay Act of 1963—An Excerpt

### SEC. 206. [Section 6]

#### (d) Prohibition of sex discrimination

(1) No employer having employees subject to any provisions of this section shall discriminate, within any establishment in which such employees are employed, between employees on the basis of sex by paying wages to employees in such establishment at a rate less than the rate at which he pays wages to employees of the opposite sex in such establishment for equal work on jobs the performance of which requires equal skill, effort, and responsibility, and which are performed under similar working conditions, except where such payment is made pursuant to (i) a seniority system; (ii) a merit system; (iii) a system which measures earnings by quantity or quality of production; or (iv) a differential based on any other factor other than sex: *Provided*, That an employer who is paying a wage rate differential in violation of this subsection shall not, in order to comply with the provisions of this subsection, reduce the wage rate of any employee.

(2) No labor organization, or its agents, representing employees of an employer having employees subject to any provisions of this section shall cause or attempt to cause such an employer to discriminate against an employee in violation of paragraph (1) of this subsection.

(3) For purposes of administration and enforcement, any amounts owing to any employee which have been withheld in violation of this subsection shall be deemed to be unpaid minimum wages or unpaid overtime compensation under this chapter.

(4) As used in this subsection, the term “labor organization” means any organization of any kind, or any agency or employee representation committee or plan, in which employees participate and which exists for the purpose, in whole or in part, of dealing with employers concerning grievances, labor disputes, wages, rates of pay, hours of employment, or conditions of work.

Source: U.S. Equal Employment Opportunity Commission. Available at: <https://www.eeoc.gov/statutes/equal-pay-act-1963>. Accessed December 15, 2021.

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# Evaluation of Healthcare Disparities in Urgent Care: A Case Example for Bacterial Pneumonia

**Urgent message:** While healthcare disparities have been studied in several healthcare settings, it is unclear whether they persist in urgent care. This study may serve as a quality improvement tool to assess whether these disparities persist in an urgent care clinic.

DERRICK MURCIA and LINDSEY FISH, MD

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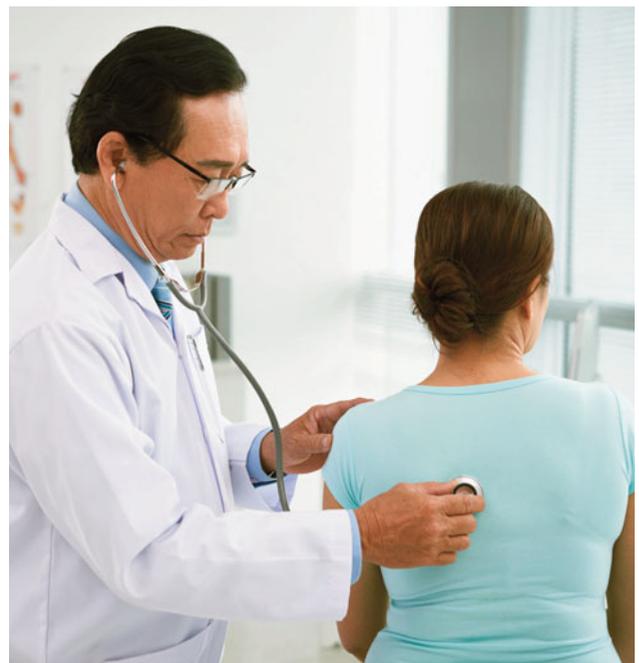
## Abstract

### Background

Bacterial pneumonia is an illness seen commonly across urgent care clinics. Despite several studies that have identified healthcare disparities in treating bacterial pneumonia, research is needed to verify if these disparities exist in the urgent care setting. This study describes a quality improvement tool that uses bacterial pneumonia as an example to check for disparities within a single urgent care center.

### Methods

Medical records from a single urgent care clinic were screened to a set of inclusion and exclusion criteria from January 1, 2017 to December 31, 2019 using the following ICD-10 codes: J12.X, J13.X, J14.X, J15.X, J16.X, J17.X, and J18.X. Data were also pulled for 14-day return rates following discharge from the urgent care clinic. Patient visits were classified into two groups: treatment-concordant and treatment-discordant, based on if they received first-line antibiotic treatment. Fisher's exact test was then used to make comparisons across several categorical variables.



### Results

A total of 245 visits with bacterial pneumonia as the primary diagnosis were identified, with 233 of these visits being unique patients. No significant differences were observed between the treatment-concordant and treatment-discordant cohorts with respect to gender ( $p = >0.9999$ ), age ( $p = 0.2346$ ), race ( $p = 0.4464$ ), ethnicity ( $p = >0.9999$ ),

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<b>Table 1. Patient Demographics</b>		
Peña Urgent Care Visits, January 1, 2017–December 31, 2019 Total visits with pneumonia diagnosis: 245 Total unique patients seen: 233		
<b>Patients</b>	<b>Prescribed doxycycline**</b>	<b>No prescription</b>
<i>Gender</i>		
Male	63	49
Female	68	52
Unknown	1	0
<i>Age group</i>		
Mean age	52.67	51.16
18–64 years	92	78
65+ years	40	23
<i>Race</i>		
Non-white/Caucasian	16	16
White/Caucasian	116	85
<i>Ethnicity</i>		
Hispanic	84	64
Non-Hispanic	48	37
<i>Payer status</i>		
Uninsured	30	24
Insured	102	77
<i>Primary care visit within 14 days after UC visit*</i>		
Yes	15	18
No	120	92
<i>Specialty visit within 14 days after UC visit*</i>		
Yes	5	2
No	130	108
<i>Urgent care visit within 14 days after UC visit*</i>		
Yes	27	32
No	108	78
<i>Emergency room visit within 14 days after UC visit*</i>		
Yes	9	4
No	126	106
<i>Inpatient stay within 14 days after UC visit*</i>		
Yes	5	1
No	130	109
<i>Total (return visit)</i>		
Yes	46	44
No	89	66
*Visit level, not patient level; **doxycycline prescription at time of UC visit		

insurance status ( $p = 0.8765$ ), and return visit to any health-care center ( $p = 0.3538$ ). No significant differences were observed when distinguishing between healthcare facility type—primary care ( $p = 0.2617$ ), specialist ( $p = 0.4637$ ), urgent care ( $p = 0.1016$ ), emergency department ( $p = 0.3940$ ), and inpatient setting ( $p = 0.2277$ ).

### Conclusion

This study provides a rapid method to identify health-care disparities for many illnesses commonly seen in urgent care clinics. While there were no statistically significant findings for the treatment of bacterial pneumonia at this urgent care clinic, evidence suggests that

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antibiotic stewardship may play a role in mitigating these types of healthcare disparities.

## Introduction

Bacterial pneumonia is defined as a lung infection that is commonly caused by *Streptococcus pneumoniae*. Annual incidence is approximately 5 million people, with 75% of cases being treated at an outpatient site.<sup>1</sup> Management and treatment may vary depending on clinical setting and location.

Empiric antibiotic treatment is a key hallmark for management of bacterial pneumonia.<sup>2</sup> A few previous studies suggest racial and ethnic disparities are evident in the incidence and management of this illness.<sup>3,4</sup> However, there are limited studies which have investigated the incidence, management, or outcomes of bacterial pneumonia based on socioeconomic factors specifically.<sup>3-12</sup> Together, these studies suggest four major findings. First, bacterial pneumonia occurs at a higher rate in racial/ethnic minority patients when compared to Caucasians.<sup>3,4</sup> However, these studies are limited in generalizability to the Hispanic population because some medical records did not specify ethnicity. Second, it is unclear if hospitals with lower quality of care indicators exacerbate these racial/ethnic disparities.<sup>4,6,9,11,12</sup> Third, vaccination administration rates with the 23-valent pneumococcal polysaccharide vaccine are lower among non-white adults compared to Caucasians.<sup>3,4,7</sup> Fourth, racial/ethnic minority patients experience delays in antibiotic administration and are less likely to receive some guideline-concordant treatments for pneumonia.<sup>4</sup> There is concern that this may cause higher complication and mortality rates among racial/ethnic minority patients.

The Federico F. Peña Southwest Urgent Care Clinic (PUCC) opened in April of 2016 and is uniquely located within the Federico F. Peña Southwest Family Health Center, a Federally Qualified Health Center (FQHC). It is affiliated with Denver Health and Hospital, a safety net urban hospital with associated FQHC community health clinics located throughout metro Denver. This urgent care clinic resides at the intersection of four Denver neighborhoods. All of these neighborhoods have a high concentration of medically underserved populations: 20% of the population is comprised of non-English speaking adults, 70% identify as Latinx, 51% of households are low income, and 20% of the population is in poverty.<sup>13</sup> The clinic additionally draws patients from all across the Denver metro area, therefore serving a racially and economically diverse population. Integration within the Federico F. Peña Southwest Family Health Center allows the urgent care clinic to

provide care to patients regardless of age, language, insurance status, or ability to pay. The urgent care clinic is financially supported by Denver Health which includes federal grant funding through the Health Resources and Services Administration (HRSA) Health Center Program. On average, the PUCC sees approximately 25,000 visits annually.

Antibiotic stewardship programs are an effective strategy to minimize unnecessary cost and establish a universal guideline for treating illnesses secondary to bacteria.<sup>14</sup> In general, these programs require two things: agreement on best clinical practices and accessibility to providers. At Denver Health, a smartphone application that provides an electronic antibiogram along with recommendations was developed and implemented in 2014. It has demonstrated increased usage over the years, suggesting adherence to guideline-concordant treatments.<sup>15</sup>

No studies, to the best of our knowledge, have investigated whether these healthcare disparities regarding the evaluation and treatment of bacterial pneumonia persist in urgent care centers (UCCs). We performed a retrospective cohort study that investigated whether Hispanic and non-Hispanic patients seen at the Peña Southwest Urgent Care Clinic received treatment according to Denver Health's antibiotic guidelines. Furthermore, we determined if patients who received guideline-discordant therapy had a higher 14-day return rate with respect to patients who received guideline-adherent therapy. We believe that this evaluation model can be applied to UCCs across the United States and utilized as a tool for quality improvement.

## Methods

All methods were approved by the Denver Health Quality Improvement Review Committee, a Colorado Multiple Institutional Review Board quality committee.

### Study Characteristics

This is a retrospective cohort study that examined provider adherence to antibiotic guidelines for patients diagnosed with bacterial pneumonia at PUCC. Medical records were screened to a set of inclusion and exclusion criteria from January 1, 2017 to December 31, 2019 using the following ICD-10 codes: J12.X, J13.X, J14.X, J15.X, J16.X, J17.X, and J18.X. Inclusion criteria consists of the following: adults 18 years or older and with the above diagnoses. Exclusion criteria consists of the following: patients less than 18 years old, pregnant patients, patients with an allergy to doxycycline, patients that were admitted to the hospital, and medical records not indicating race/ethnicity. Medical records are strat-

ified into two cohorts and compared against different categorical variables (Table 1). These groups are defined as guideline-adherent (prescribed 100 mg doxycycline twice daily by mouth for 5 days) and guideline-discordant (any other prescription). Absolute counts of return visits (<14 days) were also determined based on location of return visit.

### Statistical Analysis

All statistical analysis was performed in GraphPad Prism (version 8.4.3). Fisher's exact test was employed across different categorical variables (demographics and return visits) to identify if there was any significant deviation from the institution's treatment guidelines for bacterial pneumonia. Two-sided p-values are reported. If needed, sub variables were grouped in order to increase power when making comparisons. Bar graphs were created to illustrate these comparisons.

## Results

### Population Characteristics

A total of 245 urgent care visits that led to a primary diagnosis of bacterial pneumonia were included in this study. Of the 245 visits, 233 were identified to be unique patients. Demographic information and return visit (<14 days) data for guideline-adherent and guideline-discordant information can be viewed in Table 1.

### Cohort Comparisons with Demographic Information and Return Visit Data

Healthcare disparities among both cohorts were evaluated using Fisher's exact test to determine if demographic data corresponded to a significant difference between both groups. (See Developing Data, page 49.) No significant differences were observed among cohorts with respect to gender ( $p = >0.9999$ ), age ( $p = 0.2346$ ), race ( $p = 0.4464$ ), ethnicity ( $p = >0.9999$ ), insurance status ( $p = 0.8765$ ), and return visit to any healthcare center ( $p = 0.3538$ ). No significant differences were also observed when differentiating between healthcare facility type—primary care ( $p = 0.2617$ ), specialist ( $p = 0.4637$ ), urgent care ( $p = 0.1016$ ), emergency department ( $p = 0.3940$ ), and inpatient setting ( $p = 0.2277$ ).

### Discussion

Urgent care centers within the United States have recently experienced unprecedented growth, which has led to centers operating in areas with a high population density of minority residents.<sup>1</sup> However, few studies have used data acquired from urgent care centers to investigate whether healthcare disparities exist in this

clinical setting. Here, we used information from medical records to demonstrate a rapid, systematic method to check for disparities in treating bacterial pneumonia. Pneumonia was selected because of previous studies indicating a health disparity, high mortality rate, and complication rate as it is the ninth leading cause of death and third leading cause for hospitalization in the United States.<sup>17</sup>

As shown above in the results, we found no differences between the guidelines-adherent and guideline-discordant groups in the treatment of bacterial pneumonia. No statistically significant difference was found based on gender, age, race, ethnicity, insurance status, or return visit. We suspect that the use of an electronic antibiogram, along with clear guidelines, helped reduce providers' implicit bias when prescribing medications. Previous studies have demonstrated that the use of an antimicrobial stewardship program is useful for providing systematically sound care while minimizing incorrect medication administration and unnecessary expenses.<sup>14,15,18</sup>

This study presents a model for quality improvement measures in the urgent care setting. There are several advantages of this quality improvement model. The first advantage is that this model can be used to identify if the urgent care center is following guideline-adherent therapies. This method can be integrated into other quality improvement measures to acquire an accurate representation of UCC performance. The second advantage of this model is that it can be applied universally to any urgent care center and disease state. Although bacterial pneumonia was used in this study, this model can use data from other diseases to identify whether there is a deviation from guideline-recommended therapy. Third, the method can be performed quickly as it only requires absolute counts for data and basic software for statistical analysis.

### Limitations

With these advantages in mind, there are some limitations. The UCC must have sufficient medical records in the category of interest to power the analysis. This limits the analysis to relatively older urgent care centers, as newer UCCs may not have enough data for this model to detect a significant difference. Another limitation is that it requires a clear definition for the first-line treatment of the disease. In this example, 100 mg doxycycline twice daily by mouth for 5 days was established as the gold standard. However, some diseases do not have established guidelines as first-line for treatment, which therefore can limit the use of this model.

## Conclusions

Urgent care centers have recently experienced massive growth in the United States, but few studies have analyzed data from these healthcare sites, specifically data looking at healthcare disparities. Here, we used a simple retrospective cohort study focused on bacterial pneumonia to demonstrate a rapid method to check for disparities. This model could be easily applied to other urgent care clinic setting and to other disease states as a quality improvement method. In this study, no disparities were found in the treatment of bacterial pneumonia, which we suspect is a result from mitigated implicit bias in the treatment of bacterial pneumonia due to clear guidelines and antibiotic stewardship. ■

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ANDREW ALAYA, MD, MSC and HAROLD PELIKAN, MD

## Introduction

An ectopic pregnancy or extrauterine gravidity (EUG) is a pregnancy that implants outside of the uterus. In 90% to 95% of EUGs, the pregnancy lies in the fallopian tubes, in about 5% in the ovarium, and in 1% to 3% in the cervix, in the surrounding abdominal cavity, and in prior cesarean scar.<sup>1</sup> Prevalence of EUG has been reported to be as high as 18% in women who present due to vaginal bleeding and/or abdominal pain.<sup>2</sup> EUG is one of the first differential diagnosis for abdominal pain in women of childbearing age. However, generally it is ruled out when urine human chorionic gonadotropin (hCG) levels are negative and with no evidence of intra or extrauterine gravidities present on ultrasound examination.<sup>3</sup>

Outside of a hospital setting, serum hCG is less likely to be available and urine tests are usually performed. A standard urine test can detect hCG as low as 20 IU/L.<sup>3</sup> A negative urine test would indicate no pregnancy.

Unfortunately, this is not always correct. An EUG can take place with a negative urine test and no evidence of intra or extrauterine pregnancy with the use of ultrasound performed by an inexperienced operator. And yet an EUG was large enough to rupture. Considering the mortality and morbidity associated with a ruptured EUG, this illustrates the necessity of the use of serum hCG before ruling out EUG.

## Case Presentation

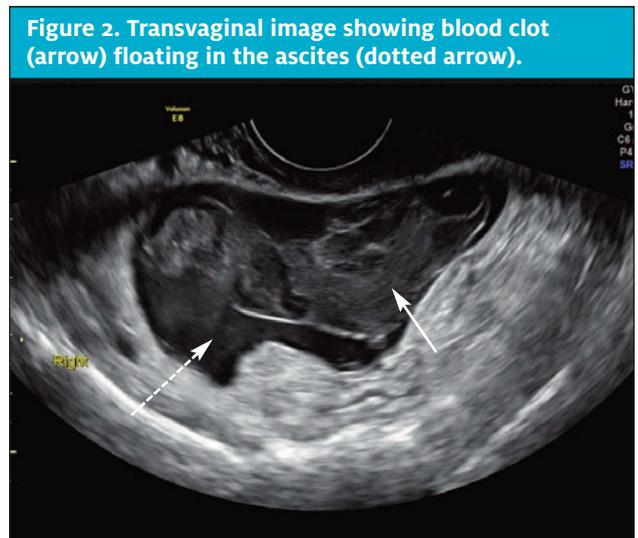
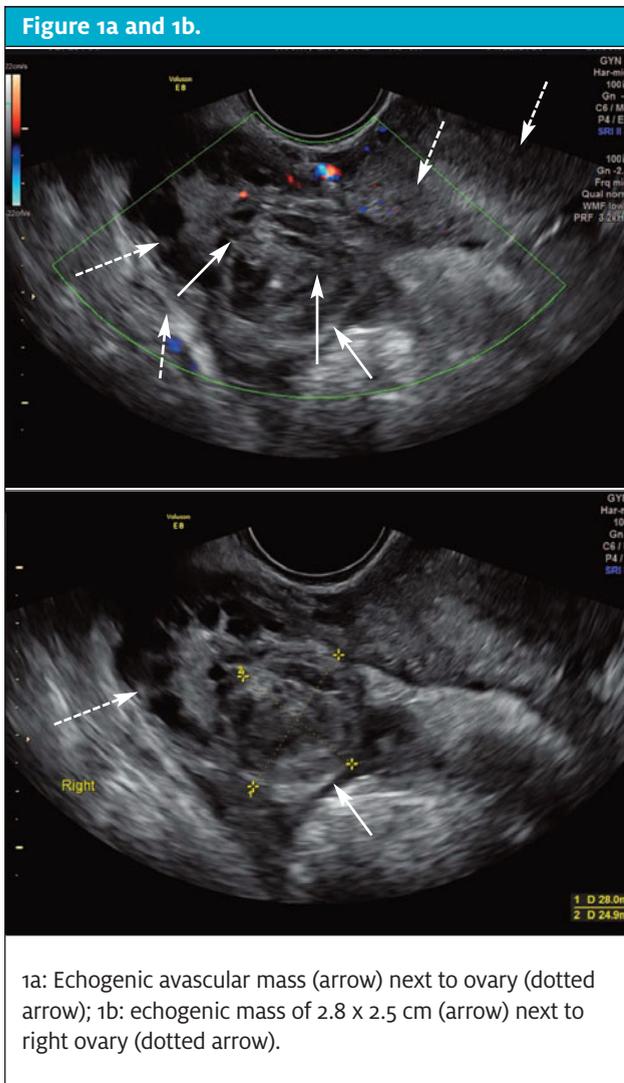
A 23-year-old nulliparous woman presented complaining of acute right lower abdominal pain. She had marked



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right tenderness on superficial and deep abdominal palpation. She was alert and well appearing. She had a regular menstruation cycle, no intermittent blood loss and was on the third day of what she thought was her menstruation cycle. She did not think that she was pregnant or had any sexual transmitted disease. Her last sexual intercourse was 1½ months ago. Her temperature was 36.3°C, heart rate was 90 beats per minute, blood pressure 116/67 mm/Hg and SpO<sub>2</sub> was 100%. Vaginal inspection showed clear blood coming from the cervical ostium; the cervix itself and vaginal walls looked normal. Ultrasound showed a normal uterus and endometrium, no evidence of EUG. The left ovary was normal (2.3 x 1.5 cm) with 2.5 cm fluid around it; the right ovary was

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enlarged (5.3 x 3.5 cm) with thick walls. Sliding movement was painful. Her bloodwork was normal. The woman was admitted for observation with a differential diagnosis of a possible ruptured cyst or torsion.

A transvaginal ultrasound showed an echogenic, avascular mass of 2.8 x 2.5 cm (Figure 1) next to the right ovary, that had a blood clot hanging from it, floating in the ascites (Figure 2). A ruptured fallopian tube due to an EUG was suspected.

She underwent laparoscopy with findings of a perforated fallopian tube due to an EUG.

**Discussion**

EUGs comprise about 2% of all live birth pregnancies. Risk is increased with previous genital infection such as pelvic inflammatory disease (PID) from *Chlamydia*

*trachomatis* or *Neisseria gonorrhoeae*, but is also increased in patients with congenital abnormalities, endometriosis of previous surgery.<sup>4</sup> Incidence can increase to as high as 4% among those using assisted reproductive technology (ART). In total, EUG is responsible for about 10% of women’s deaths during the first trimester.<sup>5</sup>

In the urgent care setting, a woman with vaginal bleeding and/or abdominal pain who is of childbearing age should have a pregnancy test. A positive test should be followed with an ultrasound to look for ectopic pregnancy.

Abdominal ultrasound is useful, but transvaginal ultrasound is superior, with a sensitivity of 93% and specificity of 97%.<sup>1</sup> Together with ultrasound, hCG is a valuable tool for assessing pregnancy. A combination of ultrasound and hCG has a very high sensitivity (96%) and specificity (97%), for EUG.<sup>5</sup>

Taking these two factors into consideration, it would be reasonable to assume that EUG in this case would not be on the top of the list of a differential diagnosis. Instead, a ruptured hemorrhagic cyst with active bleeding or ovarian torsion would have a higher priority. However, ultrasound is very much operator-dependent, and experience is crucial. ■

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# Time to Presentation for Acute Otitis Media During the COVID-19 Pandemic

**Urgent message:** Concern over the potential spread of COVID-19 may (or may not) have affected the timeliness with which parents chose to present with children who had symptoms concerning for acute otitis media, thereby throwing the concept of “delayed” antibiotic prescribing into question.

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**Citation:** Montgomery RJ, Lee BR, Montalbano A, Nedved A. Time to presentation for acute otitis media during the COVID-19 pandemic. *J Urgent Care Med.* 2022;16(4):31-35.

## Introduction

**A**n era of increasing antibiotic resistance,<sup>1-3</sup> acute otitis media (AOM) is a prime target for antibiotic stewardship efforts as the diagnosis for which antibiotics are most prescribed to children.<sup>4,5</sup> The intervention of delayed antibiotic prescribing is a safe, cost-effective option for the treatment of eligible patients with AOM<sup>6</sup> that could decrease unnecessary exposure to antibiotics.

The 2013 American Academy of Pediatrics’ clinical practice guideline for AOM states antibiotic treatment may be delayed while the patient is observed for progression or resolution of symptoms for 48–72 hours if a patient 6–23 months of age has nonsevere unilateral AOM or a patient  $\geq 24$  months of age has nonsevere unilateral or bilateral AOM.<sup>4</sup> However, immediate prescription of antibiotics for AOM is still the preferred practice among medical providers.<sup>4</sup>

The COVID-19 pandemic resulted in delayed care-



seeking for severe acute pediatric diagnoses, including appendicitis,<sup>7</sup> new-onset diabetes with diabetic ketoacidosis,<sup>8</sup> sepsis, and malignancy.<sup>9</sup> Families also delayed routine outpatient pediatric care, including immunizations.<sup>10</sup> What is unknown is whether families delayed care for more common acute pediatric diagnoses like

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AOM during the pandemic. Postponement in seeking care effectively serves as an observation period which could affect the patient's eligibility for delayed antibiotic prescribing by the time they are seen in a care setting.

This study compares the time of presentation for AOM to pediatric urgent care centers across the United States before and during the COVID-19. We hypothesized that there was a greater time to presentation for AOM during the pandemic with an increased percentage of patients presenting outside of the delayed antibiotic prescribing window compared with those presenting prior to the pandemic.

## Materials and Methods

### Study Design

We performed a retrospective secondary analysis of data collected for a national quality improvement project across 24 institutions with freestanding pediatric urgent care sites for 2 consecutive years. Data were collected from a convenience sample of pediatric urgent care physicians and advanced practice providers participating in the quality improvement project. Data were entered by the prescribing providers into an online data repository (Research Electronic Data Capture [REDCap]).<sup>11,12</sup>

The pre-pandemic time period reflected data submitted from May-November 2019 and the pandemic period was May-November 2020. We included all submitted records with a diagnosis of AOM based on ICD-10 code. Records were excluded if they had a co-diagnosis for which an antibiotic is almost always required, such as urinary tract infection or pneumonia.<sup>13</sup> We recorded patient demographics (age, race, language, insurance) and clinical characteristics (time to presentation [duration of symptoms at the time of the encounter], associated fever, co-diagnoses, antibiotic prescription information) for each encounter.

### Measures

The primary outcome measured the median time to presentation (days) for pre-pandemic encounters compared with encounters during the pandemic. We also evaluated the time to presentation for each time period by sociodemographic and clinical characteristics.

A secondary outcome measure evaluated the percentage of eligible encounters for delayed antibiotic prescriptions and of those eligible encounters, what percentage received delayed antibiotic prescriptions. We considered encounters eligible for delayed antibiotic prescriptions if the patient was >24 months, symptoms had been present for <2 days, and fever was absent.

### Data Analysis

We used the Wilcoxon rank-sum test to compare time to presentation between the two study periods. Pearson's chi-square test was used to compare categorical factors. All analyses were completed using SAS (version 9.4; Cary, NC).

The Institutional Review Board at Children's Mercy Kansas City determined this project was not human-subjects research.

## RESULTS

There were 1,996 encounters that met inclusion criteria during the pre-pandemic period. We excluded 13 of these encounters for having a co-diagnosis requiring antibiotics. During the pandemic study period, 403 encounters met inclusion criteria. We excluded one encounter with a co-diagnosis requiring antibiotics from this group.

During the pandemic there was a decrease in the number of patient encounters with AOM. However, when comparing patient-level characteristics, there were some changes in the proportion of AOM encounters pre- and during-pandemic. There was an increased number of encounters in which AOM was diagnosed for black patients ( $p < 0.001$ ). There was a decrease in proportion of encounters with commercial insurance ( $p < 0.001$ ). The clinical characteristics also showed a decrease in the proportion of encounters with associated fever ( $p = 0.002$ ). The median time to presentation did not change during the pandemic (2 days; IQR [2,4]) compared with pre-pandemic (2 days; IQR [2,4]) (Table 1).

Encounters with associated fever had a shorter median time to presentation during the pandemic (2 days; IQR [2,3]) compared with pre-pandemic (3 days; IQR [2,4]);  $p = 0.04$ ). However, encounters with no associated fever had a longer median time to presentation during the pandemic (3 days; IQR [2,4]) compared to the pre-pandemic (2 days; IQR [1,3];  $p = 0.02$ ) (Table 2).

The percentage of encounters eligible for delayed prescribing pre-pandemic (18.4%) compared with during the pandemic did not change (16.4%;  $p = 0.34$ ). Of those encounters eligible for delayed antibiotics, the rate of receiving immediate antibiotics did not change between the pre-pandemic (26.0%) and pandemic (21.2%;  $p = 0.58$ ).

## Conclusions

In a national database of pediatric urgent care encounters, there was no difference in time to presentation for patients diagnosed with AOM before and during the COVID-19 pandemic. While other studies have re-

Table 1. Demographics				
		2019 (N=1983)	2020 (N=402)	p value
Age—median [IQR]		2 [1, 5]	2 [1, 5]	0.0406
Race—freq (%)				<0.0001
	Black	169 (8.5%)	52 (12.9%)	
	Other	433 (21.8%)	9 (2.2%)	
	Unsure	0 (0.0%)	62 (15.4%)	
	White	1381 (69.6%)	279 (69.4%)	
Language				0.3677
	English	1733 (92.6%)	370 (94.2%)	
	Other language	29 (1.5%)	7 (1.8%)	
	Spanish	109 (5.8%)	16 (4.1%)	
Insurance				<0.0001
	Commercial	1080 (54.5%)	171 (42.5%)	
	Public	708 (35.7%)	157 (39.0%)	
	None/self-pay	52 (2.6%)	11 (2.7%)	
	Other/unknown	143 (7.2%)	63 (15.7%)	
Any fever		1017 (52.2%)	173 (43.5%)	0.0016
Type of prescription				0.4185
	Immediate	217 (10.9%)	37 (9.2%)	
	Delayed	1590 (80.2%)	332 (82.6%)	
	In office	159 (8.0%)	32 (8.0%)	
	None	17 (0.9%)	1 (0.3%)	
Duration of symptoms—median [IQR]		2 [2, 4]	2 [2, 4]	0.7605

ported a delay in seeking care for higher-acuity diagnoses and routine well-care, our results suggest that the common diagnosis of AOM did not see similar delays in presentation to pediatric urgent care centers.

While AOM is a low-acuity condition, it is often associated with symptoms of viral upper respiratory infections similar in presentation to COVID-19. During the pandemic, families presented for evaluation sooner when fever was associated with ear pain, possibly due to COVID-19 concerns, or conversely were more willing to watch and wait at home if their child was not having fevers in an attempt to avoid interacting with the healthcare system at that time.

Given that overall patients presented in similar time frames for AOM both before and during the pandemic, it is unsurprising that the percentage of encounters eligible for delayed antibiotics also did not change. Additionally, the percentage of eligible patients who re-

ceived delayed antibiotics remained low for both time periods. This practice of providing immediate antibiotic prescription for AOM rather than recommending a period of observation is consistent with previous studies.<sup>6,14–17</sup> A multitude of provider and parental factors contribute to continued high immediate prescribing rates.<sup>14,18,19</sup> However, many patients in our study presented after the symptoms had been present for at least 2 days, which precludes those patients from being eligible for further watchful waiting. The lack of serious complications in our study population who on average presented after 2 days of symptoms adds to the evidence that delayed prescribing is a safe treatment option for eligible patients with AOM.

### Limitations

There are several limitations to this study. This was a retrospective secondary analysis of a quality improve-

Table 2. Difference in Age, Race, Language, Fever, and Type of Prescription Between 2019 and 2020				
		2019	2020	p value
<b>Age—median [IQR]</b>				
	≤2 Years	3 [2, 4]	3 [2, 4]	0.2394
	>2 Years	2 [1, 3]	2 [1, 4]	0.2393
<b>Race</b>				
	Black	3 [2, 4]	3 [2, 4.5]	0.5825
	Other	3 [2, 4]	2 [2, 3]	0.7307
	Unsure		3 [2, 4]	—
	White	2 [1, 4]	2 [2, 4]	0.8321
<b>Language</b>				
	English	2 [2, 4]	2 [2, 4]	0.9785
	Other language	3 [1, 3]	2 [1, 3]	0.5394
	Spanish	3 [2, 4]	3 [2, 3.5]	0.7432
<b>Insurance</b>				
	Commercial	2 [1, 4]	2 [2, 4]	0.5808
	Public	3 [2, 4]	2 [2, 3]	0.4384
	Non/Self-pay	2 [1, 4]	3 [2, 7]	0.4087
	Other/Unknown	3 [2, 4]	3 [2, 4]	0.9618
<b>Any fever</b>				
	No	2 [1, 3]	3 [2, 4]	0.0161
	Yes	3 [2, 4]	2 [2, 3]	0.04
<b>Type of prescription</b>				
	Delayed	2 [1, 3]	2 [1, 3]	0.9825
	Immediate	3 [2, 4]	3 [2, 4]	0.7231
	In Office	2 [2, 4]	3 [2, 3]	0.8648
	None	3 [1, 4]	1 [1, 1]	0.3324

ment project database and causality of our findings cannot be identified. Our study only included patients diagnosed with AOM and we did not evaluate the time to presentation for ear pain due to other diagnoses. Although our study included patient encounters from 24 different pediatric urgent cares across the United States, our results are limited to patients treated by pediatric urgent care clinicians participating in an antibiotic stewardship project and may not be generalizable to other settings.

Despite a growing body of evidence of delayed pediatric care during the COVID-19 pandemic, there was no difference in time to presentation for patients diagnosed with AOM in a national multicenter pediatric urgent care study. However, during the pandemic, families presented sooner if there was associated fever with

the ear pain. Most AOM encounters were not eligible to receive delayed antibiotics due to presentation after 2 days of symptoms, which adds to the evidence that children who present with otalgia earlier in their course can be safely monitored for at least 48 hours prior to starting antibiotics. ■

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**Take-Home Points**

- This study compared the time of presentation for AOM to pediatric urgent care centers across the United States before and during the COVID-19 pandemic (May through November 2019 and May through November 2020, respectively).
- The primary outcome measured the median time to presentation in days for pre-pandemic encounters vs encounters during the pandemic.
- Encounters with associated fever had a shorter median time to presentation during the pandemic compared with the pre-pandemic time period (2 days vs 3 days, respectively).
- The percentage of encounters with patients who were eligible for delayed prescribing in the pre-pandemic period (18%) did not change significantly during the pandemic period (16.4%).
- Of encounters in which the patient was eligible for delayed antibiotics, the rate of actually receiving antibiotics did not change significantly between the pre-pandemic and pandemic periods (26% and 21.2%, respectively).

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# ABSTRACTS IN URGENT CARE

- Pediatric Burns and Cool, Clear Water
- Limit Screen Time After Concussion?
- Gastroenteritis in Children
- Diagnosing Giant Cell Arteritis
- POCUS and Ectopic Pregnancy
- Detecting *C diff*
- Vaccinating Adolescents Against COVID-19

■ IVAN KOAY MBChB, FRNZCUC, MD

## First Aid for Pediatric Burn Patients

**Take-home point:** Many children with burns receive inadequate cooling after burns when presenting for emergency care.

**Citation:** Frear C, Griffin B, Kimble R. Adequacy of cool running water first aid by healthcare professionals in the treatment of pediatric burns: a cross-sectional study of 4537 children. *Emerg Med Australas.* 2021;33(4):615–622.

**Relevance:** First aid with cool running water (CRW) for patients sustaining burn injuries ensures quicker healing and reduces the need for skin grafting.

**Study summary:** This was a cross-sectional retrospective study using Queensland, Australia, Pediatric Burns Registry (QPBR) data for children <16 years of age who received emergency treatment after a thermal burn. The QPBR is a prospectively collected database of children presenting to major pediatric burn centers. Families were asked to describe the first aid administered by all parties potentially involved in initial care, including caregivers and/or patients at the scene of the injury, paramedics, family medicine doctors, emergency department staff, and/or children's specialty hospital staff. Types of first aid interventions which were documented included CRW, ice, and damp clothes. The duration of CRW therapy at each level of management was also recorded. Duration of CRW was divided into no CRW, <5 minutes, 5-10 minutes, 11-19 minutes, and >20 minutes.

The authors found that 71.9% of the 4,537 children presenting to the burn center received adequate cooling measures. Caregivers provided adequate cooling in only 33% of cases; 49% of children had inadequate cooling measures initiated; and 6.9%

of children received no cooling. Inadequate cooling was corrected in 25% of cases by paramedics, 24% of cases by the family doctor, 53% by providers in the general ED, and 76% of cases by staff at the children's hospital. However, 12% of patients never received appropriate first aid treatment/cooling by any healthcare professional. There were no associations in the multivariable models with sex, ethnicity, anatomical location, or total body surface area and likelihood of appropriate treatment.

**Editor's comments:** This was a retrospective study relying on family recollections of events surrounding a burn and therefore substantial risk of recall bias exists. ■

## Screen Time and Concussion Recovery

**Take-home point:** Results of this study suggest that limiting screen time during the initial acute concussion recovery phase may help in shortening duration of symptoms.

**Citation:** Macnow T, Curran T, Tolliday C, et al. Effect of screen time on recovery from concussion: a randomized clinical trial. *JAMA Pediatr.* 2021;175(11):1124-1131; e212782.

**Relevance:** Postconcussion care has evolved significantly over the last several years. Screen time has become increasingly prevalent, the effect of which on concussion recovery is uncertain.

**Study summary:** This was a single-center parallel-design randomized trial among patients who presented to the pediatric and adult EDs of the University of Massachusetts Medical Center within 24 hours of sustaining a concussion. Participants were randomized to one of two groups: one group was permitted to engage in screen time during the first 48 hours of recovery and the second group was asked to abstain from screen time during the same period. Participants completed the Post-Concussive Symptom Scale (PCSS) at the time of enrollment, then daily for the 10-day study duration. The authors used a Cox re-



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gression model that included intervention group and sex. Significant findings included that female participants (HR, 0.34; 95%CI, 0.19-0.60) and participants in the group permitted screen time (HR, 0.51; 95% CI, 0.29-0.90) were less likely to recover over the study period compared with male participants and participants in the screen-time-abstinent group. The screen-time-permitted group had a significantly longer median time until recovery compared with the screen-time-abstinent group: 8.0 days vs 3.5 days, respectively (p=0.03).

**Editor's comments:** This was a single centered study of a convenience sampling of patients. Enrollment was halted early due to COVID-19. However, the results were significant and correspond with prior studies demonstrating females recover less well from concussions than males. Given the ubiquity of screen time, these findings warrant further investigation, but in the meantime, it's reasonable to caution patients about excessive screentime after concussion. ■

### Does Oral Ondansetron Really Affect the Course of Pediatric Gastroenteritis?

**Take-home point:** Oral ondansetron was not associated with a reduction in need for IV fluid administration within 72 hours of hospitalization in children presenting to the ED with acute gastroenteritis (AGE). However, it was associated with reduced need for IV fluids at the index ED visit.

**Citation:** Powell E, Roskind C, Schnadower D, et al. Oral ondansetron administration in children seeking emergency department care for acute gastroenteritis: a patient-level propensity-matched analysis. *Ann Emerg Med.* 2021 Aug 11; 50:196-0644(21)00478-9.

**Relevance:** This paper investigates the efficacy of oral ondansetron in six clinically relevant outcomes in children with AGE.

**Study summary:** This was a planned secondary analysis of the Pediatric Emergency Care Applied Research Network (PECARN) probiotic study and the Pediatric Emergency Research Canada (PERC) Probiotic Regimen for Outpatient Gastroenteritis Utility of Treatment (PROGUT) randomized, placebo-controlled trials of probiotics in children who presented for ED care with AGE-associated diarrhea. Ten U.S. and six Canadian institutions participated in the study. Children enrolled ranged from 3 to 48 months of age. All ED care, including use of ondansetron, treatment with oral or intravenous fluids, and hospitalization, was permitted at the discretion of the ED physician/provider.

Study objectives were to determine if oral ondansetron administration was associated with a reduction in intravenous fluid administration or hospitalization at the index visit and within 72 hours, as well as effect on the frequency of vomiting

and diarrhea episodes during the 24 hours enrollment. Children administered oral ondansetron were older, had more vomiting episodes in the 24 hours preceding the index visit, and were more likely treated in a U.S.-based ED. Oral ondansetron administration was not associated with any difference in IV fluid administration up to 72 hours after the index visit, hospitalization at index visit, and hospitalization up to and after 72 hours following the index visit. Oral ondansetron was associated with a significantly lower rate of IV fluid administration during the index visit, however (adjusted OR=0.50)

**Editor's comments:** This was a large observational study from a variety of EDs in the U.S. and Canada. Use of ondansetron was associated with decreased use of IV fluids at the initial ED visit, but not with any improvement in other outcomes, including IV needs and hospitalization at 24 hours. With all of the typical limitations of observational data, this seems to suggest that for more severe cases of AGE, ondansetron is unlikely to change their clinical course and need for subsequent care during their illness. Regardless, ondansetron is well tolerated and was associated with less need for initial fluids, so there seems to be little downside to a trial in urgent care before rushing to IV fluids. ■

### Diagnosis of Giant Cell Arteritis

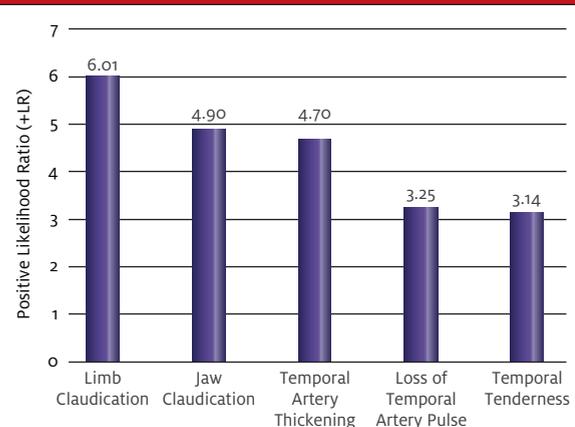
**Take-home point:** No single clinical or laboratory feature was able to rule in or rule out temporal arteritis/giant cell arteritis (GCA). The diagnosis must be confirmed by performing additional investigations, including vascular imaging and/or temporal artery biopsy.

**Citation:** van de Greest K, Sandovici M, Brouwer E, et al. Diagnostic accuracy of symptoms, physical signs, and laboratory tests for giant cell arteritis: a systematic review and meta-analysis. *JAMA Intern Med.* 2020;180(10):1295-1304.

**Relevance:** Understanding the limitations of physical exam and lab studies in patients presenting with symptoms concerning for GCA can help guide urgent care clinicians toward accurate and timely diagnosis of this vision-threatening diagnosis. Knowledge of the value of various studies also helps to prevent inappropriate investigations that add expense and complexity to care.

**Study summary:** This was a systematic review and meta-analysis of the diagnostic accuracy of symptoms, physical signs, and laboratory tests for the diagnosis of GCA. Studies included met certain inclusion criteria such as consecutive patients with suspected GCA and correlated reference testing such as temporal artery biopsy (TAB) or imaging available. Studies with <10 patients were excluded.

**Figure 1. Features Associated with Increased Risk of GCA**



Sixty-eight studies fulfilled the selection criteria with a total of 14,037 patients included. Features associated with increased risk of GCA included limb claudication (positive likelihood ratio (+LR) 6.01), jaw claudication (+LR 4.9), temporal artery thickening (+LR 4.7), loss of temporal artery pulse (+LR 3.25), and temporal tenderness (+LR 3.14)(See **Figure 1.**) Significant laboratory findings included platelet count of greater than 400,000 (+LR 3.75), erythrocyte sedimentation rate (ESR) >100 mm/hr (+LR 3.11). Features considered “classic” for GCA, such as headache, scalp tenderness, and constitutional symptoms were not significantly associated with the diagnosis. The negative likelihood ratio (-LR) for an ESR <40 mm/hr was 0.18. CRP and age <70 was less sensitive.

**Editor’s comments:** While no single finding can rule in or rule out GCA, combinations of findings can be helpful in guiding clinical suspicion and patient referral for further work-up. Interestingly, in this series, clinical findings such as claudication were more suggestive than laboratory findings for the diagnosis of GCA. ■

### Use of Point-of-Care Ultrasound (POCUS) in Ectopic Pregnancy Diagnosis

**Take-home point:** The use of POCUS was associated with faster ED treatment and faster time to the OR for ruptured ectopic pregnancies.

**Citation:** Stone B, Muruganandan K, Tonelli M, et al. Impact of point-of-care ultrasound on treatment time for ectopic pregnancy. *Am J Emerg Med.* 2021;49:226–232.

**Relevance:** Ectopic pregnancy is a highly time-sensitive condition. Urine pregnancy testing and ultrasound at the point-of-care offer an opportunity to expedite this diagnosis and getting the patient to definitive care.

**Study summary:** This was a retrospective cohort study of patients diagnosed with ectopic pregnancy who underwent operative management in a large urban academic ED in the U.S. The study compared ED treatment time for patients who received POCUS as a part of their ED care compared with radiology-performed ultrasound (RADUS) for women with ectopic pregnancies requiring operative intervention.

Out of 109 patients identified, 73 had RADUS and 36 had POCUS. The mean ED treatment time was significantly faster in the POCUS group (158 minutes vs 206 minutes;  $p=0.014$ ). Patients in the POCUS group had a significantly faster time to operative management as well (203 minutes vs 293 minutes;  $p 0.0002$ ).

**Editor’s comments:** This was a retrospective study, and timing was reliant on EMR entries. Patients in the POCUS group more frequently had abnormal vital signs, which may have contributed to shorter time to operative intervention. Additionally, POCUS is highly operator-dependent and it is unclear if the effect of POCUS use on rapidity of ectopic identification can be generalized other EDs.

(For an account of the utility of POCUS in ectopic pregnancy based on an actual urgent care case, read *How Useful Is Ultrasound in Diagnosing Extrauterine Gravidities?* on page 28.) ■

### C diff Detection in Children

**Take-home point:** *Clostridium difficile* (*C diff*) colonization is highest in children younger than 1 year and decreases thereafter.

**Citation:** Tougas S, Lodha N, Vandermeer B, et al. Prevalence of detection of *Clostridioides difficile* among asymptomatic children: a systematic review and meta-analysis. *JAMA Pediatr.* 2021 Oct 1;175(10):e212328.

**Relevance:** The Infectious Disease Society of America (IDSA) advises against routine testing for *C diff* in children younger than 12 months of age due to the extremely high rate of colonization, making results difficult to interpret.

**Study summary:** This was a systematic review and meta-analysis of studies of *C diff* rates among children from various regions of the world. Children were divided into age <7 days, 7 days–1 month, 1–3 months, 3–6months, 6 months–1 year, 1–2 years, 2–5 years, and >5 years.

The authors found 95 studies involving 19,186 children from 40 countries. They noted prevalence for any *C diff* strain peaked among infants aged 6–12 months (41%), and the lowest prevalence was among children >5 years (12%). The prevalence of *toxigenic C diff* varied less across age groups, peaking among infants aged 6–12 months (14%) and being least prevalent among infants <3 months (3%-6%) and children >5 years (6%).

There was no difference in rates of colonization detected by different testing methods (eg, ELISA vs PCR vs culture).

**Editor’s comments:** Diarrhea is common in children, especially infants. Treatment for *C diff* can be extremely costly and anxiety-provoking. These data lend credence to the recommendation to avoid testing young children for *C diff* unless there is supportive history (eg, prolonged hospitalization, multiple courses of antibiotics). ■

COVID-19 Abstract 

COVID-19 Vaccination in the Adolescent Population

**Take-home point:** The mRNA-1273 (Moderna) vaccine had an acceptable safety profile in adolescents. The immune response was similar to that in young adults, and the vaccine was efficacious in preventing COVID-19.

**Citation:** Ali K, Berman G, Zhou H, et al. Evaluation of mRNA-1273 SARS-CoV-2 vaccine in adolescents. *N Engl J Med.* 2021;385(24):2241-2251.

**Relevance:** Vaccinating all individuals is important in the quest

for herd immunity against COVID-19.

**Study summary:** This was an observer-blinded, placebo-controlled evaluation of the safety, immunogenicity, and efficacy of the mRNA-1273 vaccine in adolescents aged 12-17 enrolled at 26 research sites across the United States. Participants were randomly assigned in a 2:1 ratio to receive two injections of either mRNA-1273 vaccine (each injection containing 100 µg, for a total dose of 200 µg) or placebo (saline), 28 days apart.

The authors enrolled a total of 3,732 adolescents who were randomly assigned in a 2:1 ratio to receive mRNA-1273 (2,489 participants) or placebo (1,243 participants). There was a non-inferior immune response based on both the geometric mean titer and serologic response in adolescents as compared with that in young adults (18-25 years old). The safety and reactogenicity of mRNA-1273 in adolescents was like that observed in adults. No cases of myocarditis or pericarditis in this trial had been reported at the time of publication.

**Editor’s comments:** This was a pharmaceutical-funded study by Moderna. There was no comparison of efficacy and safety made between the mRNA vaccine used in this study and the other available COVID-19 vaccinations. ■



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## A 15-Year-Old Boy with a Painful Elbow After a Baseball Game

Figure 1.



Figure 2.

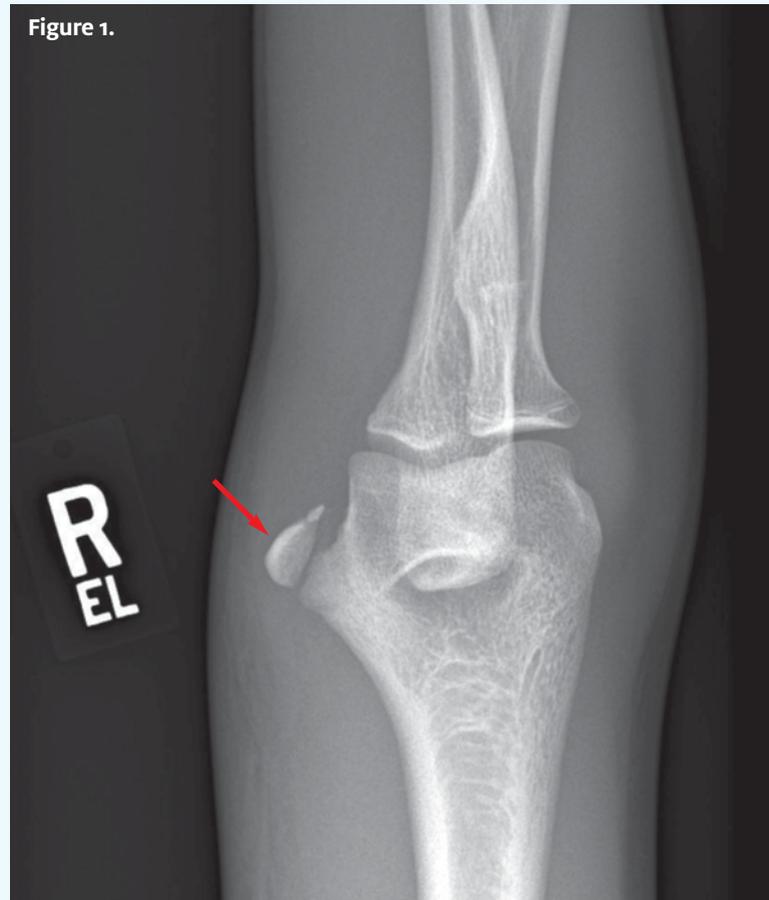


### Case

The patient is a 15-year-old boy who presents to urgent care with a painful medial right elbow he and his parents attribute to pitching in a baseball game earlier in the day.

View the images taken and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.

## THE RESOLUTION

**Differential Diagnosis**

- Displaced avulsion fracture, medial epicondyle
- Medial epicondylitis (golfer's elbow)
- Apophysitis of the medial epicondyle (little league elbow)
- Supracondylar fracture
- Normal apophysis

**Diagnosis**

The correct diagnosis is a significantly displaced avulsion fracture of the medial epicondyle. Note on the lateral x-ray, there is a joint effusion. On the AP x-ray, there is a large fragment avulsed from the medial epicondyle with associated soft tissue swelling.

**Learnings/What to Look for**

- Medial epicondyle avulsion is typically seen in adolescent throwers
- In contradistinction to the repetitive trauma resulting in apophysitis (little league elbow), this fracture usually results

from a single high-force valgus trauma and athletes often hear a “pop”

- It is important to distinguish an avulsion fracture from a widened (apophysitis) or normal growth plate

**Pearls for Urgent Care Management**

- Medial epicondyle fractures are best immobilized with a posterior long arm splint and arm sling
- Surgical fixation is required for injuries with complete neurologic deficit, incarcerated fragments, open wounds, or significant displacement
- Orthopedic follow-up is always necessary within 7 days. Possible surgical cases should be referred for same- or next-day evaluations
- Surgical reduction is often preferred for mild-moderate displacement in overhead adolescent athletes (swimmers, pitchers) or weightbearing athletes (gymnasts) who will continue to have valgus instability if the fragments is not stabilized

**Acknowledgment:** Images and case presented by Experity Teleradiology ([www.experityhealth.com/teleradiology](http://www.experityhealth.com/teleradiology)).



## A 68-Year-Old Woman with a Rash of Several Weeks' Duration



### Case

The patient is a 68-year-old woman who presents with a rash she says developed on her trunk over a span of several weeks. On examination, there were multiple confluent, orange-red plaques on the trunk and arms with “islands of sparing” within them. The rash had a primarily truncal distribution and was pruritic. She was feeling well otherwise.

View the image and consider what your next steps and diagnosis would be. Resolution of the case is described on the next page.

## THE RESOLUTION

**Differential Diagnosis**

- Seborrheic dermatitis
- Pityriasis rubra pilaris
- Atopic dermatitis
- Tinea corporis

**Diagnosis**

This patient was diagnosed with pityriasis rubra pilaris (PRP), which is characterized by an acute cutaneous eruption that is often accompanied by pruritis and/or pain. Etiology of PRP has not been clearly defined, though onset has been associated with myositis, myasthenia gravis, hypothyroidism, HIV, infection, and malignancy. In addition, ultraviolet exposure and minor skin trauma preceding onset have been reported. The majority of PRP cases are acquired (as opposed to heritable), the incidence of which occurs in two peaks: during the first and second decades of life, and during the sixth decade.

**Learnings/What to Look for**

- Classic cutaneous lesions include follicular papules on an erythematous base coalescing to form large, orange-red plaques with characteristic islands of sparing (as seen in this patient)
- PRP commonly (but not always) begins on the scalp and rapidly spreads in a craniocaudal direction and has the potential to quickly progress to erythroderma over several weeks' time

**Pearls for Urgent Care Management**

- Emollients, topical lactic acid, topical corticosteroids, or oral retinoids may be useful in relieving symptoms
- Scaling may be reduced with emollients or 12% lactic acid with an occlusive dressing
- Patients resistant to topical treatments may require oral acitretin or methotrexate
- Advise patients that resolution may occur slowly over several years

**Acknowledgment:** Images and case presented by VisualDx ([www.VisualDx.com/JUCM](http://www.VisualDx.com/JUCM)).



# A 27-Year-Old Male with Chest Pain and No Reported Medical History

## *Chamber Abnormalities: Pathologic or Not?*

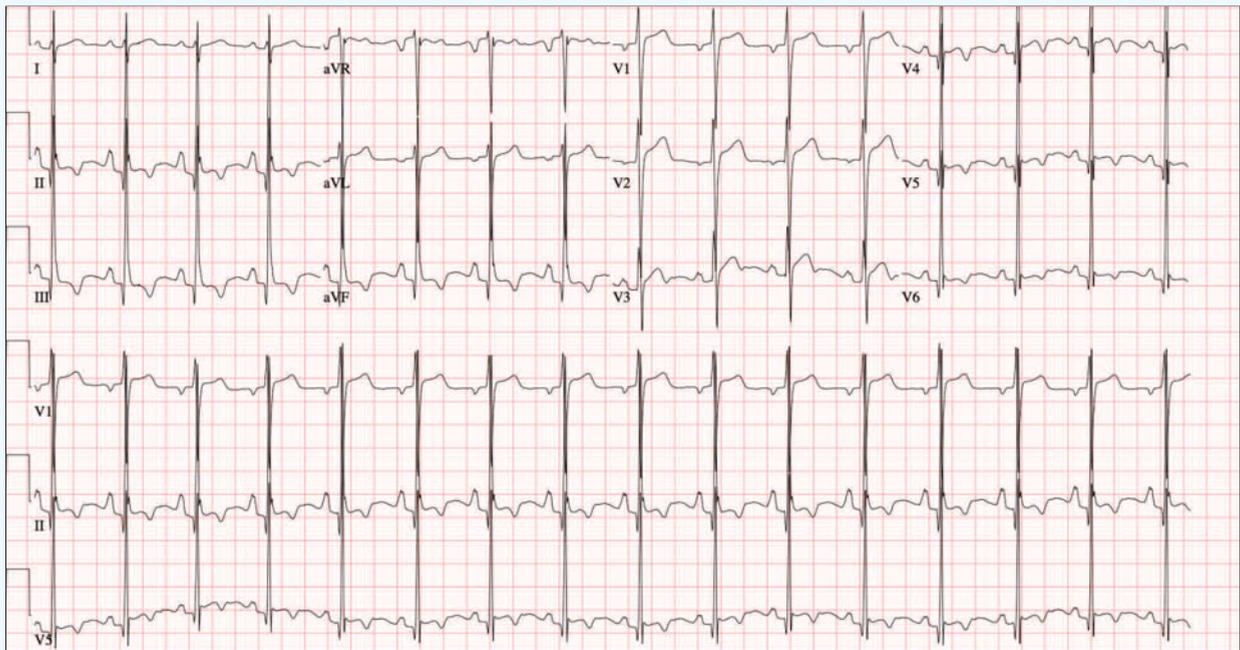


Figure 1.

A 27-year-old male with no reported medical history presents with chest pain. He relays several weeks of intermittent symptoms which started after lifting heavy boxes. The pain is sharp, located in the mid-chest and is otherwise non-tearing, non-pleuritic, non-positional and not associated with exertion.

On examination, the patient is in no acute distress, and appears lean without cachexia or wasting. The pain is reproduced with shoulder extension. It resolves with acetaminophen.

View the ECG taken and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.

(Case presented by Tom Fadiel, MD, McGovern Medical School, Department of Emergency Medicine, The University of Texas Health Sciences Center of Houston.)

THE RESOLUTION

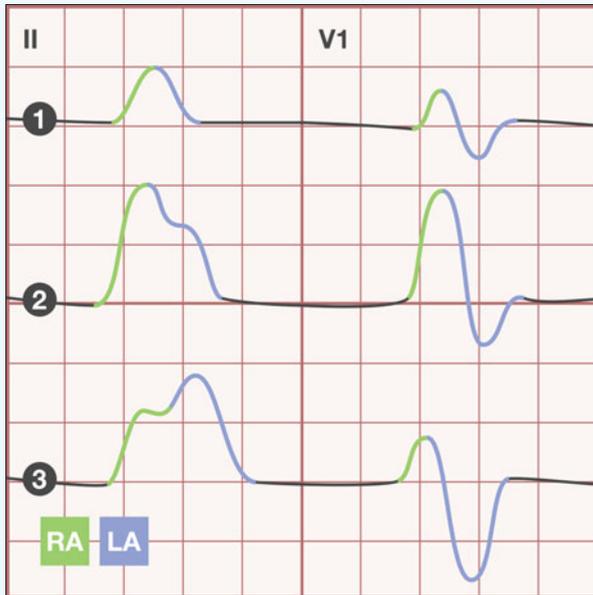


Figure 2.

Differential Diagnosis

- Left ventricular hypertrophy
- Hypertrophic cardiomyopathy
- Hypertension
- Aortic stenosis
- Body habitus

Diagnosis

The correct diagnosis is body habitus. The ECG illustrates normal sinus rhythm at a rate of 96 bpm. There is rightward axis deviation (RAD) with positive deflections in II, III, and aVF with a nearly iso-electric QRS in lead I. The PR, QRS, and QT intervals are normal.

Evaluating for chamber enlargement, we note an increased amplitude P-wave in the inferior leads measuring between 2.5 and 3 mm. Right atrial abnormality (or enlargement) is identified with a P-wave amplitude of > 2.5 mm in lead II or >1.5 mm in V1/2.

Next, it is readily apparent that the QRS amplitudes are large—so much so that the peak in V4 extends well beyond the tracing paper. While this may increase the suspicion for left ventricular hypertrophy (LVH), several ECG criteria exist for a more definitive diagnosis:

1. R wave in aVL >11 mm
2. S wave in V1 + R wave in V5/6 ≥35 mm
3. R wave in aVL + S wave in V3 >28 mm in males, or >20 mm in females

LVH is also commonly associated with some of the ST-segment and T-wave changes seen in this ECG, including the downsloping ST-segment depression and T-wave inversions most evident in V5/V6.

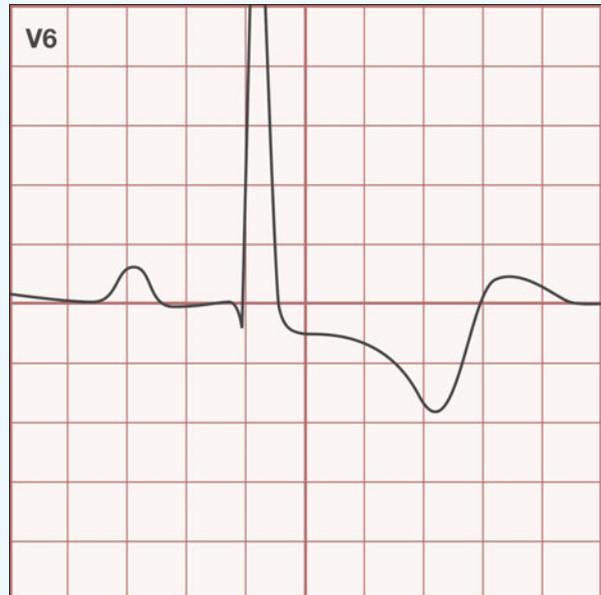


Figure 3.

Learnings/What to Look for

Just as increased soft-tissue impedance from adipose or edema can influence the surface ECG by dampening the conduction of electrical impulses, an especially slender body habitus can have the inverse effect. In this case, the various electrocardiographic abnormalities were simply amplifications of normal cardiac activity. One potentially helpful hint is the combination of LVH with RAD—the former when truly representative of ventricular hypertrophy being more commonly associated with leftward axis deviation.

Key points

- Right atrial abnormality or enlargement: P-wave in II >2.5 mm or >1.5 mm in V1/2
- Left ventricular hypertrophy: R-wave in aVL >11 mm
- LVH repolarization changes include downsloping ST-segment depression and T-wave inversion

Pearls for Urgent Care Management

For asymptomatic or low-risk patients with slender body habitus and chamber abnormalities on ECG, outpatient follow-up is reasonable.

Resources

1. Cooper BL, Giordano JA, Fadiel TT, Reynolds CE. ECG Stampede: A case-based curriculum in electrocardiography triage. 1st ed. Houston, TX: Null Publishing Group, 2021.
2. Harrigan RA, Jones K. ABC of clinical electrocardiography. Conditions affecting the right side of the heart. *BMJ*. 2002 May 18;324(7347):1201-1204.





# Are Insurance Plans Still Waiving Cost-Sharing?

■ MONTE SANDLER

A common question that I receive is whether COVID-19 testing is still being covered by insurance plans. The Families First Coronavirus Response Act (FFCRA) and the Coronavirus Aid, Relief, and Economic Security Act (CARES) require insurance plans to cover diagnostic testing without cost-sharing (cost-sharing being the amount assigned to patient responsibility; it includes deductibles, copays, and co-insurance).

The word “diagnostic” is significant. COVID-19 testing falls into two categories:

- *Diagnostic* – used for treatment. Patients are symptomatic or asymptomatic but exposed.
- *Screening* – used for administrative purposes. Patients are asymptomatic and have not been exposed.

Insurance plans must cover diagnostic testing. They do not have to cover screenings. They also do not have to cover antibody testing, which is used to determine whether the patient has a history of COVID-19 rather than the active virus.

This requirement applies to group health plans and health insurance issuers offering group or individual health insurance coverage, including grandfathered health plans. Grandfathered health plans are individual health insurance policies purchased on or before March 23, 2010. This may not include self-funded plans.

These required plans must pay the negotiated rate for diagnostic COVID-19 testing, including the portion that would be assigned to the patient. In the case of out-of-network (OON) plans, the payment amount is the cash price for testing that is listed by the practice on their public website. The patient cannot be balance billed. Balance billing is when a patient is billed for the difference between the provider’s charge and the allowed amount.

Clinics are required to publish cash prices for COVID-19 testing to their website homepage during the Public Health Emergency (PHE). The Centers for Medicare & Medicaid Services will take

the following action for noncompliance:

1. Provide a written warning
2. Request a corrective action plan
3. Impose a penalty not to exceed \$300 per day

*Cash price* is the charge that applies to a patient who pays cash (or cash equivalent) for a COVID-19 diagnostic test. This is the same as the “walk-in” rate to self-pay individuals and is the maximum charge allowed. Providers can discount this rate. There is an expectation that this would be less than what is billed to insurance due to the lower overhead (eg, no billing functions).

The following terms are required on this posting: provider’s name, price, cost, test, COVID, and coronavirus. In addition, standardized information should be included so the patient can understand the relationship between the posted cash price and the diagnostic test offered. At a minimum, this includes:

- Plain language description of each test
- Corresponding cash price
- Billing code(s)
- Any differences in price by location

How long payers will have to waive cost-sharing for diagnostic COVID-19 testing depends on the duration of the PHE. A PHE lasts 90 days but can be renewed, which usually occurs within days of the existing expiration date. This causes confusion, as insurance plans will post a notification that the waiving of cost-sharing is expiring on a specific date and then remove the posting when the PHE is extended.

Cost-sharing is also impacted by state laws. California SB 510 requires plans to cover both diagnostic and screening testing and “health care services related to testing” without cost-sharing. This is tied to California’s declaring a PHE.

For OON payers, payment is an amount that is “reasonable,” as determined in comparison to prevailing market rates in the region where the item or service is rendered.

California SB 510 was signed on October 8, 2021. Practices may have seen denials for screenings prior to this date. However, it is retroactive to March 4, 2020, when the governor declared a State of Emergency. ■



**Monte Sandler** is Executive Vice President, Revenue Cycle Management of Experity (formerly DocuTAP and Practice Velocity).

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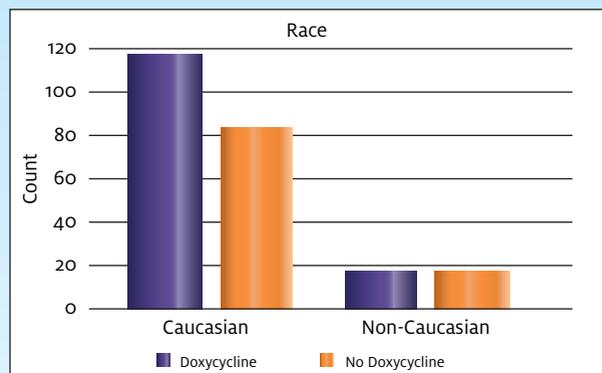
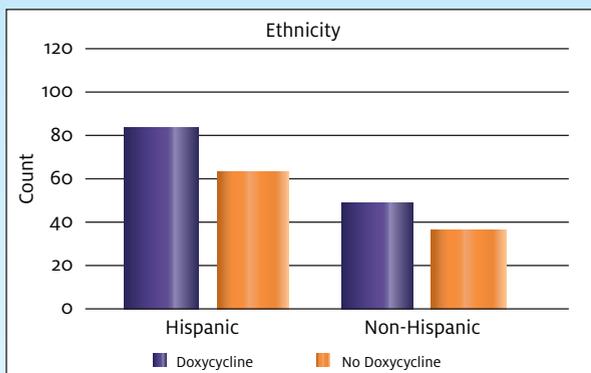
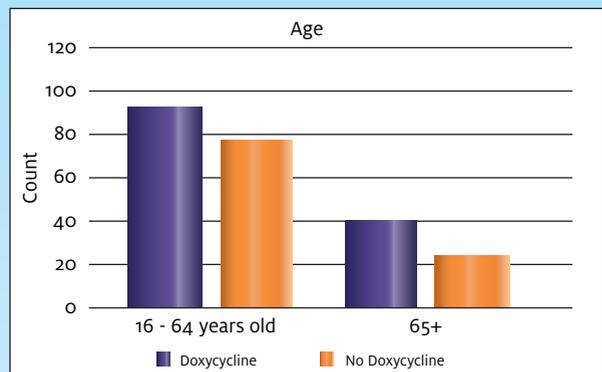
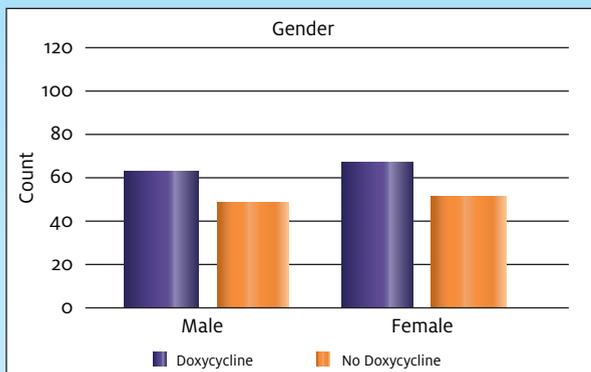


## Yes, Disparities in Prescribing Exist in Urgent Care—but *Which* Disparities?

If you read Evaluation of Healthcare Disparities in Urgent Care: A Case Example for Bacterial Pneumonia—see page 23 of this issue—you know that the proportion of appropriate prescriptions written for an on-label medication (in this case, doxycycline for bacterial pneumonia) may differ among various demographic groups. While the conclusions of that study do not necessarily make a cause-and-effect connection, the data should inspire some analysis as to possible rationale for differences in care of various patient groups.

The graphs below illustrate how many patients in various groups did or did not receive a prescription for doxycycline in accordance with institutional guidelines at the Peña Southwest Urgent Care Clinic in Colorado. It's interesting to note that a small (and similar) majority of patients received a prescription for doxycycline in every comparison pairing except for Race, in which the non-Caucasian group was split evenly between receiving and not receiving a prescription. ■

### WHICH BACTERIAL PNEUMONIA PATIENTS DID—AND DIDN'T—RECEIVE A PRESCRIPTION FOR DOXYCYCLINE? (N=233)



Data source: Murcia D, Fish L. Evaluation of healthcare disparities in urgent care: a case example for bacterial pneumonia. *J Urgent Care Med.* 2022;16(4):23-27.



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