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was scanning the tracking board during an urgent care shift the other day and, as usual, my brain was five steps ahead. I read the chief complaints and had already determined the questions I’d ask to guide the history based on the differential diagnoses I’d predicted. This is a regular occurrence in the UC and ED, whether we admit it or not. It’s part of how we move things along—thinking a few steps ahead.

I was seeing a patient whose complaint was “Foot pain—ball of foot. No injury.” Already I’m working on the possibilities: plantar fasciitis, callus, poor footwear, metatarsalgia. I started asking questions, “Old shoes? Worse in the morning when you first wake up? Better with stretching? Worse at end of night?” Yes, yes, and yes. I glanced at her foot, saw a callus, and a plantar wart. She’d had trouble with the callus before. “Meant to call the podiatrist…I keep forgetting,” she told me.

The callus and the wart were tender, but not red or warm. The foot hurt when I dorsiflexed the toes. Then I noticed some old bruising under the little toe. “You sure there was no injury?” I asked. “Well, maybe,” she replied. Hmmm…now there were four possibilities.

I could have diagnosed plantar fasciitis, contusion, callus, and plantar warts and called it a day. In and out in 30 seconds or less and on to the next patient. But for some reason I felt compelled to look at her foot more carefully.

I got a magnifying glass to examine the plantar wart. After some poking and prodding, I was shocked to find that the “plantar wart” was actually a piece of glass embedded in the sole of her foot. Then it hit her. She suddenly remembered walking barefoot in her garage just before the pain started. Oh, and then there was that pickle jar she had dropped out there a few weeks before that she remembered next. I removed the glass with tweezers, and the patient was instantly asymptomatic.

And what is the point of this story, you may ask? So often our shifts are rushed and overfilled as we are pressured to see patients faster, respond to administrative concerns, keep up with our various inboxes, and the list goes on. I know providers that write up discharge instructions and prescriptions based on the chief complaint to save time before even seeing the patient. Others barely ask more than one or two questions, relying almost entirely on the triage information recorded by the staff or patient intake forms. For COVID concerns, I’ve seen colleagues walk into the patient’s room and just say “negative” and walk out without taking any history at all. Some patients are barely examined.

When we have to see four to six patients per hour and complete all the required documentation, it is tempting to cut these corners in the interest of time.

But what of quality of care? Patients don’t always describe their complaints fully or accurately to our support staff. Often the chief complaint is entered by a secretary or MA and not the patient. “Shortness of breath” often turns out to be nasal congestion, “chest pain” often is stomach pain, a “UTI” may be genital herpes, and “sore throat” can actually be neck pain. Foot pain and ankle pain are confused often. I’ll admit I’ve preordered the wrong x-ray based on chief complaint in these cases more than once.

This case demonstrates the value of even a slightly more careful physical exam. A mentor once told me that 80% of diagnoses can be made on history alone. Although I find that is often the case, there is no substitute for careful inspection. I have caught abdominal aortic aneurysms in patients with back pain, pulseless feet in patients with blisters on their toes, shingles on patients with chest pain, and fractures in patients who supposedly hadn’t had any injury.

All of these diagnoses, just like the piece of glass in the foot, would’ve been missed had I not taken that brief extra moment and done a little extra digging. Certainly, with all the pressures we face in UC, it’s easy and tempting to do as little as possible. But I want to challenge you to take that extra minute and dig a little deeper. You might be surprised at what you find, and your patients will thank you for it. Just like that woman with the piece of glass in her foot did as she walked out of my clinic without the limp that she’d hobbled in with.
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The use of all-inclusive kits with compact, table-top analyzers provides a rapid quantification of HbA1c levels in patients. The use of these tests for in-house screening has the potential to increase the diagnoses of early or asymptomatic diabetes in young adults and underserved or overlooked populations. We'll explore this issue in the next issue of JUCM.

Ting-Hsuan Chiang, MD; Kenneth Schmitt, BS; Ariana Nelson, MD

Whether you prescribed it or (more likely) did not, the odds that you'll treat a patient on low-dose naltrexone are growing. You'll need to be aware of the patient's medication history, prioritization of nonopioid treatment options, and indications for timely referral or transfer.

Management of Patients on Low-Dose Naltrexone: A Clinical Review for Urgent Care Providers

Nikhil B. Shah, MD

Staffing needs fluctuate all the time. Before you try to adapt by simply changing a team member's status from full-time to part-time status, you should understand that such changes could have consequences beyond the hours worked.

Changing an Employee from Full-Time to Part-Time Status

Alan Ayers, MBA, MAcc

Coinfection with COVID-19 and other respiratory pathogens requires careful assessment in the urgent care center. Mishandled, these cases could be headed for a worsening clinical picture and a poor outcome.

COVID-19 and RSV: Coinfection Requiring Hospitalization

Marcia Taylor, MD, MSCR, FAAFP

Urgent care centers, by definition, are set up to manage patients with nonemergent complaints. That doesn't mean emergencies won't occur, however—and when the patient is a child, the team needs to be aware there are special considerations. Protocols need to be in place long before the situation arises.

A Novel Pediatric Resuscitation Course Designed for the Urgent Care Setting

Nikhil B. Shah, MD

When urgent care was in its infancy, hospitals and health systems wanted no part of the nascent revolution. Things have changed. We present an overview of which operators have become major players in the hospital-based urgent care business.

Urgent Care’s Top Hospital-Affiliated Urgent Care Operators—by Number of Locations

Marcia Taylor, MD, MSCR, FAAFP

The use of all-inclusive kits with compact, table-top analyzers provides a rapid quantification of HbA1c levels in patients. The use of these tests for in-house screening has the potential to increase the diagnoses of early or asymptomatic diabetes in young adults and underserved or overlooked populations. We'll explore this issue in the next issue of JUCM.
Urgent care providers are probably less likely to prescribe opioid pain medications or to treat patients for opioid addiction than providers in other settings. So why is our cover article this month focusing on patients taking low-dose naltrexone (LDN)? Simple: Because there are more patients taking LDN, and inevitably many of them will present to urgent care. So, UC providers need to be well-versed in the special considerations that go along with these patients.

As Ting-Hsuan Chiang, MD; Kenneth Schmitt, BS; and Ariana Nelson, MD illustrate in Management of Patients on Low-Dose Naltrexone: A Clinical Review for Urgent Care Providers, that requires taking a thorough medication history, prioritization of nonopioid treatment options, and timely referral or transfer for severe uncontrolled pain. All within the confines of an encounter with a patient the provider has likely never seen before. So, bottom line: It matters.

The authors are all affiliated with the Department of Anesthesiology & Perioperative Care at the University of California Irvine. In addition, Dr. Nelson is one of JUCM’s senior research editors. Their article begins on page 11.

Similarly, while the providers are certainly more than capable, urgent care centers are not really designed to handle truly emergent presentations involving any patients, let alone children. Nonetheless, you can’t predict who will walk through your door next. It could easily be a young patient whose status goes downhill quickly—and they need your help, immediately. Nikhil B. Shah, MD, senior director of provider training for PM Pediatric Care, makes the case for urgent care centers to be prepared for potential calamities such as these in A Novel Pediatric Resuscitation Course Designed for the Urgent Care Setting (page 23).

Children are not the only ones at risk for diagnosis with simultaneous respiratory infections. Given the past couple of influenza seasons, it should be clear that anyone could wind up in that situation. Marcia Taylor, MD, MSCR, FAAFP of Lexington Medical Center in Batesburg – Leesville, SC treated one such patient not that long ago—and she recounts the case in COVID-19 and RSV: Coinfection Requiring Hospitalization. As she explains, dual diagnoses can often lead to a worsening clinical picture that requires careful assessment in the urgent care center. Turn to page 28 to see for yourself.

Urgent care operators face risk of another type when it comes to making tough personnel decisions. Even appropriate, defensible decisions can lead to serious legal consequences if they’re not handled correctly. As explained by Alan A. Ayers, MBA, MACc in Changing an Employee from Full-Time to Part-Time Status (page 19), there are clear guidelines to direct your actions. Failure to follow them could have severe consequences for the business. Mr. Ayers is president of Experity Consulting.

We’re also fortunate to be able to bring you a guest editorial by long-time JUCM Editorial Board member Tracey Quail Davidoff, MD, FCUCM. In Dig a Little Deeper, she reflects on the value of slowing down appropriately instead of cutting “safe” corners in the interest of keeping the flow of patients moving briskly. If you missed it, turn back to page 1 and it may give you something valuable to reflect on. Dr. Davidoff is an attending physician with BayCare Urgent Care in Tampa, FL.

Ensuring appropriate reimbursement through responsible coding is always valuable to reflect on. It’s also essential to get it right for both your practice and the entire healthcare system. Even benign misuse has consequences, either through underpayment or the appearance of impropriety. In Modifier 25: What You Need to Know (page 47), Phyllis Dobberstein, CPC, CPMA, CPCO, CEMC, CCC explains that while modifier 25 is “overused in the industry” and “has been under scrutiny from payers for decades,” it is essential for everyone involved in billing and coding to understand its proper place. Ms. Dobberstein is RCM compliance manager for Experity.

Finally, as always, we appreciate the efforts of Ivan Koay, MBChB, MRCS, FRNZUC, MD to keep us all up to date on urgent care-relevant literature published elsewhere recently. This month, he covers race factors in pediatric Lyme disease; the relative predictive value of hyperacute T-waves; the role of POC testing in medical decision-making; whether or not regular feedback can influence prescribing decisions; tips in reducing anterior shoulder dislocation; and dealing with potential language barriers in triage. Dr. Koay is an urgent care physician and medical lead, Kings College Hospital Urgent Treatment Centre, London; convened Ireland and UK Faculty of the Royal New Zealand College of Urgent Care; and Independent Assessor European Reference Network, Andalusian Agency for Healthcare Quality. Abstracts in Urgent Care begins on page 31.
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Differential Competitive Advantage

LOU ELLEN HORWITZ, MA

In the May issue of JUCM, Josh Russell, MD, MSc, FCUCM, FACEP wrote in his Letter from the Editor-in-Chief about thinking differently about follow-up. If you are not a physician, physician assistant or nurse practitioner and decided to skip his letter that month because it seemed too clinical, I urge you to go back and read it.

One of the aspects of Urgent Care that separates us from other kinds of healthcare operations—or used to—is the tight collaboration between administration and medicine. At the beginnings of Urgent Care this was because administration and medicine were often the same person! All aspects of managing the center and practicing medicine in the center went through the same “double-mesh” filter of the single owner, ensuring that both perspectives were always included.

As we’ve grown—either we’ve gotten busy in a single center or expanded to multiple centers—we’ve had to specialize our teams to be able to manage broad geographies or large numbers. This is just a part of growth, but I think we might have already lost something in the transition that’s affecting how we do things every day in our centers, and how we interact with the larger healthcare environment. Josh’s letter outlines one example of this perfectly.

Making good decisions in medical operations is extraordinarily difficult. One has to balance the risky, messy, customized aspects of practicing medicine on thousands of unique individuals with the needs for structure, consistency, measurability, and predictability to successfully run a business that will be successful in the long term. We all know this, but I’m not sure we are paying enough attention to the “balance” part lately. We seem to be shifting slowly but inevitably into the “us vs them” dynamic within our centers that is typical in most healthcare institutions, and there’s danger there.

Desperation makes us want to fall back on the easy things. We are tired of being understaffed, tired of being underpaid by payers, and still tired from the pandemic—and that makes one tired of fighting to be better, because being better is hard. But here’s another thing we all know—being worse is even harder.

I’d like you to reconsider what “being better” looks like in your Urgent Care and suggest that it looks like closer collaboration between medicine and administration. If those have drifted apart in your centers, look hard at why and figure out how to fix it and try again. One guess as to why: both administrators and clinicians have gotten so absorbed by their “sides” of the organization, because the stakes have been so high for so long, that the specialization of your work has pulled you apart and now you’ve stayed there vs coming back together. It just seems easier to stay in your lane.

If you look at classic decision-making charts, the more collaborative the decision-making, the longer it takes. In an industry with “urgent” in the name, time pressure is always there. But what we have also learned is that the quality of the decision making and the stickiness of the decision that’s made also go up with more collaborative approaches. It takes longer but it also lasts longer, because it’s a better decision when it includes diversity of perspectives.

There’s another classic concept: differential competitive advantage. This speaks to something that you can do that makes you different from competitors and is hard to duplicate. Classically, this looked like advanced technology, a patent, a strong brand identity, or superior personnel. In today’s world, however, most of those are either easier to duplicate or easier to completely disrupt than ever before. The rest of healthcare has caught on to the value of medical assistants, walk-ins are doable for almost everyone, and patient experience has become a universal focus—so does Urgent Care even have a differential competitive advantage anymore? I’d like to suggest that we could, and that it’s an iron-clad collaboration between medicine and management for taking Urgent Care forward.

Every other healthcare institution spends more time trying to implement decisions rather than make them, because of the isolated ways the decisions were made in the first place. I’ll admit, I hate making decisions collaboratively because it almost always derails the neat, clean vision I had in the first place, but it almost always leads to better long-term outcomes.

Lou Ellen Horwitz, MA is the chief executive officer of the Urgent Care Association.
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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- Michael B. Weinstock, MD
  Member reported no financial interest relevant to this activity.
- Alan A. Ayers, MBA, MAcc
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Management of Patients on Low-Dose Naltrexone: A Clinical Review for Urgent Care Providers (page 11)

1. Daily doses of “low dose” naltrexone range from:
   a. 1 mg to 5 mg
   b. 10 mg to 15 mg
   c. 20 mg to 25 mg
   d. Up to 50 mg

2. Which of the following is among the most common diagnoses related to prescription of opioid medications in the urgent care setting?
   a. Postsurgery pain
   b. Fractures
   c. Throat pain
   d. Eye pain

3. The FDA has approved naltrexone for which of the following indications?
   a. Postsurgery pain
   b. Pain associated with fibromyalgia
   c. Both opioid and alcohol use disorder
   d. Breakthrough pain associated with certain cancers

Changing an Employee from Full-Time to Part-Time Status (page 19)

1. As relates to the Patient Protection and Affordable Care Act, “small businesses” are defined as:
   a. Those with 12 or fewer employees
   b. Those with fewer than 25 employees
   c. Those with fewer than 50 employees
   d. Those with fewer than 25 full-time employees

2. Per the Internal Revenue Service, the threshold for “full-time” employees vs part-time is:
   a. Working at least 27.5 hours per week, or 119 hours per month
   b. Working at least 30 hours per week, or 130 hours per month
   c. Working an average of 40 hours per week for at least 3 months upon starting work
   d. Working 40 hours or more per week at least 5 months out of the year

3. Employers can legally move an employee from full-time status to part-time status:
   a. For any reason, including the company deciding it will no longer employ full-time workers
   b. Only upon proving that reducing the employee’s full-time status is necessary to maintain profitability
   c. Only upon agreement with the employee, assuming that employee was hired to fill a full-time position when they started working for the company
   d. It depends on which state the business is registered in

COVID-19 and RSV: Coinfection Requiring Hospitalization (page 28)

1. CDC guidelines state that:
   a. A positive test for COVID-19 or influenza does not exclude that the other virus could be present
   b. A negative test for COVID-19 or influenza proves the patient does not have RSV
   c. A positive test for COVID-19 or RSV definitively excludes the presence of coinfection
   d. A negative test for COVID-19 or RSV proves that the patient does not have influenza

2. Coinfection with RSV and influenza results in:
   a. Increased morbidity, but not increased mortality
   b. Increased mortality, but not increased morbidity
   c. Increased risk for both morbidity and mortality
   d. No impact on risk for morbidity or mortality

3. Although research is still evolving in this area, available studies have found that:
   a. Coinfection with RSV and COVID-19 does not change management
   b. Coinfection involving RSV and COVID-19 results in lower use of ICU care
   c. Coinfection involving RSV and COVID-19 results in lower use of mechanical ventilation
   d. Coinfection involving influenza requires higher use of ICU and mechanical ventilation
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Management of Patients on Low-Dose Naltrexone: A Clinical Review for Urgent Care Providers

**Urgent message:** Low-dose naltrexone (LDN) is becoming more common as a treatment option for pain and thus will be increasingly prevalent in patients presenting to the urgent care setting. A thorough medication history, prioritization of non-opioid treatment options, and timely referral or transfer for severe uncontrolled pain are important considerations in the management of patients using LDN.

TING-HSUAN CHIANG, MD; KENNETH SCHMITT, BS; and ARIANA NELSON, MD


Key Words: naltrexone, opioid, opiate, urgent care

**Introduction**

Naltrexone is an opioid receptor antagonist approved by the Food and Drug Administration for the treatment of alcohol use disorder and opioid use disorder at high doses of 50 mg to 100 mg, daily. By binding to opioid receptors, naltrexone blocks the effects and reduces cravings for opioid and alcohol consumption.\(^1\)\(^2\)

In contrast, low-dose naltrexone (LDN), with doses ranging from 1 mg to 5 mg per day, has gained popularity in recent years due to its demonstrated efficacy in the management of chronic pain conditions. This novel pharmacologic therapy not only offers a safer alternative to opioid-based medications, but also has fewer side effects.

With the increased use of LDN as an off-label treatment for several chronic inflammatory diseases, urgent care providers may encounter patients on LDN seeking treatment for pain. However, due to its potential effect on the opioid response, acute pain management in these patients is an area not yet explored in the literature.

This review article focuses on current evidence of LDN for chronic pain and highlights pain management for this specific patient group in the urgent care setting.
Pain Management In Urgent Care

Urgent care centers have rapidly expanded in the past two decades, with patient visits increasing each year. Pain is one of the most common chief complaints in urgent care clinics, and prescription of opioids in urgent care is not uncommon.

A retrospective study examining urgent care in-clinic opioid prescriptions found that fractures, joint dislocations, musculoskeletal pain, and abdominal pain are the most common diagnoses that led to opioid prescription. Generally, the concomitant use of opioid and LDN should be avoided. LDN is unlikely to precipitate withdrawal symptoms for patients on opioids at these low doses, but it is prudent to recommend that patients on continuous opioid therapy wean entirely off opioids before initiating LDN. Even at low doses, there is a theoretical risk that the blockage of opioid receptors can reduce the effect of opioid agonists to varying degrees. However, the more likely scenario is that the disturbance of the endogenous opioid system by exogenous opioid agonist administration will interfere with the analgesic benefits of LDN and thus the two should not be given together.

Chronic use of naltrexone is known to increase opioid sensitivity through upregulation of mu receptors in the CNS. Although current evidence on opioid hypersensitivity of naltrexone has not been studied in LDN, this potential upregulation increases the complexity of corresponding clinical decisions.

To avoid unnecessary use of opioids, urgent care management for patients on LDN should prioritize nonopioid medications and nonpharmacologic therapies. Nonpharmacologic therapies, including nerve blocks and local anesthetic infiltration, may not be feasible in the urgent care setting. Therefore, nonopioid medications such as NSAIDs should be initially considered. Prompt referral to pain management facilities or urgent transfer to an emergency department may be necessary in some cases if severe pain cannot be adequately addressed, in which case opioid agonists should be employed to ensure appropriate mitigation of patient suffering.

The initiation of opioids in acute pain depends upon the etiology and severity of pain. In situations where opioid-based analgesics are deemed necessary, consider using short-acting, high-affinity, full opioid agonists to overcome any potential opioid receptor blockade of LDN.

For the FDA-approved dose of oral naltrexone, which is much higher than LDN, and that is used to treat alcohol and opioid use disorder, it is considered safe to initiate opioids after discontinuing naltrexone for at least 72 hours. To overcome the antagonism, patients often require increased dose of opioids and slow titration to effect. As the effect of high-dose naltrexone wanes over time, the opioid agonist should also be decreased to avoid respiratory depression or sedation. This concomitant titration should be conducted with caution and close interdisciplinary coordination, given the potential of patient hypersensitivity to opioid effects with long-term use of naltrexone.

Theoretically, at the lower doses used for analgesic benefit (such as LDN <5 mg), usage of opioid agonists can be much more lenient. Initial doses of opioids for these patients, in contrast to those on full-dose naltrexone, typically do not need to be increased to overcome antagonism. While the co-administration of LDN and opioid agonists has been investigated, there are insufficient data on the dosage effect of LDN and concurrent use of opioids.

When initiating opioids, it is important to understand the dose of naltrexone patients are taking and be aware of varying opioid sensitivity over time to guide clinical decisions. Regardless of the dose of naltrexone patients are taking, conservative dosing and close monitoring with follow-up should be prioritized. In addition to the dose, other factors to take into consideration include time of the last dose and any concurrent opioid use.

Pain management in patients on LDN is further complicated by its frequent absence on electronic health record medication lists, as it is often acquired from compounding pharmacies. Additionally, some providers may prescribe higher doses of naltrexone and instruct patients to break pills into smaller portions in order to get coverage from insurance companies if the out-of-pocket cost is difficult for the patient to manage. Reconfirming dose and frequency of LDN administration with patients while acquiring their medication history is therefore critical.

Evidence on Chronic Pain Conditions

Randomized trials have demonstrated efficacy and shown promising safety profiles on the use of off-label LDN for several chronic pain conditions and autoimmune diseases. Current evidence mainly supports the efficacy of LDN for multiple sclerosis, Crohn’s disease, and fibromyalgia. Benefits of LDN on outcomes,
such as improved quality of life, pain, overall stable disease state, and lessened fatigue and anxiety were identified in multiple retrospective and small prospective studies. Larger, longer duration randomized trials are warranted for definite conclusions on the efficacy of LDN for different chronic conditions.

Multiple sclerosis
Multiple sclerosis (MS) is one of the earliest and most studied chronic diseases with regard to LDN. Clinical studies reported reduced relapse rate, slowed disease progression, stabilized quality of life, and reduced fatigue among MS patients started on LDN. It quickly gained popularity after a Norwegian documentary in 2013, with MS patients claiming significantly improved function after the use of LDN. According to the Norwegian prescription database (NorPD), after this documentary, the number of naltrexone users quickly grew from less than 20 to more than 15,000. With data from NorPD, a study found a significant reduction in opioid consumption and NSAID use among long-term LDN users.6 However, these side effects are infrequent and usually mild.12

Fibromyalgia
It is generally believed that the endorphin rebound effect from transient blockade of opioid receptors contributes to the attenuation of pain in fibromyalgia. Several studies and case reports have shown improvement of pain, physical function, and mood in fibromyalgia patients with the use of LDN. A crossover trial of 10 women found the use of LDN increased mechanical and heat pain thresholds in patients. They also reported that response to LDN correlated directly to ESR, suggesting that LDN may be useful in those with signs of inflammation. As fibromyalgia is a disorder of the CNS with a neuroimmune component, the immunomodulating benefit of LDN has been proposed to play a potential role in the pain attenuating effect.12 Another crossover trial of
eight women found reduced plasma concentrations of pro-inflammatory cytokines and overall symptoms when treated with 8 weeks of LDN, further supporting the hypothesis of LDN as an anti-inflammatory medication for fibromyalgia.26

“Naltrexone and naloxone have both been shown to cross the blood-brain barrier and, therefore, can conceivably affect central and peripheral immune cell reactivity.”

Similar to that of MS and Crohn’s disease, current data suggest excellent safety and tolerability of LDN for fibromyalgia.24,25

**Low-Dose Naltrexone for Chronic Pain**

**Pharmacodynamics and Pharmacokinetics**

As a competitive, reversible opioid receptor antagonist, naltrexone has a high affinity for μ-opioid greater than k-opioid receptors.2,3 Naltrexone is absorbed orally, and is then metabolized largely via first-pass metabolism in the liver by the enzyme non-cytochrome dehydrogenase to form its active metabolite, 6β-naltrexol.

When orally administered, naltrexone and 6β-naltrexol have a half-life of 4 and 13 hours, respectively. Following intramuscular administration, the half-life increases to 5 to 10 days for both unmetabolized naltrexone and its metabolite.

Naltrexone shares a similar pharmacologic profile with naloxone but diverges when comparing certain pharmacokinetic properties, including a notable increase in oral bioavailability and half-life of the former.24 Though its elimination occurs primarily via renal filtration and excretion, naltrexone dosage adjustments have been deemed unnecessary for patients with mild renal impairment.22 Still, further studies are necessary regarding severe renal impairment, and caution is recommended when treating the end-stage renal disease patient populations with naltrexone regimens.12

**Mechanism of action**

The mechanism and application of LDN centers on its multimodal cellular effects that is dosage-dependent.18 Several pathways found in animal and in vitro studies are believed to contribute to the unique analgesic, anti-inflammatory, and immunomodulatory properties of LDN due to varying dose-dependent pharmacological targets.25

Naltrexone’s nonlinear analgesic relationship between doses and pharmacological outcomes can partially be understood by its effects on the μ-opioid receptor (MOR) G protein-coupled receptor (GPCR). As a semisynthetic opioid antagonist, naltrexone works similarly to many other prescribed opioids by targeting MORs largely found on neurons linked to pain signaling.18,28,29 Further studies have suggested a relationship between chronic administration of opioids and shifts in MOR GPCR in partial favor of a Gs-coupled rather than Gi-coupled response.30

This understanding holds clinical significance with the display of hyperalgesia, tolerance, and dependence in the setting of chronic MOR stimulation. However, varying doses of certain opioids have shown differing preferences in GPCR response.31

From this, the concept of lower-dosage opioid treatment in favor of Gi-couple partiality has been explored. Animal studies on mice have demonstrated that the application of low perfusion doses in combination with opioid treatment has led to notable reductions in action potential propagation and tolerance.31

A necessary element in the function and understanding of naltrexone’s downstream cellular effects includes the recognition of a scaffolding protein filament associated with MORs called filamin-A (FLNA).31 When bound by naltrexone, the MOR Gi-coupling is favored over the Gs-coupling response, promoting the analgesic effects of administered opioid agonists. However, FLNA also has a binding affinity for opioid antagonists and, with the saturation of both agonist and antagonist binding sites, the above-mentioned promising opioid agonist effects are reduced.

**Opioid rebound effect**

LDN has also been shown to induce the increased assembly of endogenous opioids in contrast to higher standard doses of naltrexone.32,34 Naltrexone administration at doses less than 0.5 mg/kg have been linked to increased levels of endogenous levels of endorphin and metenkephalin.12,15-17 Additional literature suggests an associated increase in opioid receptor expression in relation to this “opioid rebound” effect.32,35,36,37

**Anti-inflammatory effects of naltrexone**

Naltrexone also shows promising anti-inflammatory effects at lower dose regimens. This is likely induced through interactions with toll-like receptor 4 (TLR4), a key receptor in proinflammatory downstream cellular signaling including the release of interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF-α).38

Though opioid medications have been linked pre-
viously to the stimulation of proinflammatory effects via TLR4 signaling, low-dose naltrexone has paradoxically been correlated with the promotion of anti-inflammatory effects through the inhibition of TLR4 signaling.39,40

Given the high occurrence of TLR4 among microglial cells, LDN potentially possesses additional properties that are immunosuppressive and diminish neuropathic pain. Naltrexone and naloxone have both been shown to cross the blood-brain barrier and, therefore, can conceivably affect central and peripheral immune cell reactivity.40 Prior in vivo animal studies have highlighted the plausibility of treating neuropathic pain with the inhibition of TLR4 receptors through the administration of naltrexone and naloxone.39,41,42 Further studies have confirmed LDN’s increased affinity for TLR4 receptors, including a minimal selectivity for dopamine, noradrenaline, and serotonin transporters.43,44 Such findings provide further support for naltrexone as an alternative treatment for neuropathic pain.

**Opioid growth factor-opioid growth factor receptor axis regulation**

LDN has additionally been reported to have an influence on the opioid growth factor-opioid growth factor receptor (OGF-OGFr) axis. This can be explained by LDN’s transient competitive inhibition of OGFr, resulting in a compensatory feedback response to increase OGF and OGFr expression.45 Low quantities of naltrexone lead to a short-lived inhibition of OGFr that is rapidly processed prior to subsequent doses, producing a period of amplified OGF and OGFr expression and interaction.25

**Dosage and expense**

The standard, FDA-approved dose of naltrexone for opioid use disorder and alcohol use disorder is between 50 mg and 100 mg. Therefore, the current commercially available naltrexone oral tablet is 50 mg.

Dosage for such disorders can be further reduced via a tablet cutter and started as low as 25 mg orally to allow for close follow-up and observation for adverse effects or withdrawal symptoms. Naltrexone is also available via intramuscular injection (380 mg), recommended for patients who would benefit from naltrexone treatment of SUD or AUD but find it difficult to be adherent to a daily oral administration regimen.46

Intramuscular naltrexone, in comparison to its oral form, is significantly longer acting.47 Therefore, clinicians will need to maintain vigilance in opioid titration for 5 to 10 days given this longer period of antagonist medication washout. In terms of LDN, dosages range from 0.5 mg to 5 mg, depending on individual patient requirements and responses.18

Such low-dose prescriptions have amassed support for off-label use in a myriad of chronic pain syndromes; however, commercially available LDN continues to be absent on formularies. Lower doses of naltrexone are readily available via compounding pharmacies and can be individualized to patients’ needs.

Additionally, while medication pricing fluctuates extensively across the nation, the average cost of LDN, including medication compounding, has previously been reported as $35 per month. Although patients must pay this fee out of pocket, this is much lower in comparison to several medications used to treat specific chronic pain diseases.1

In the current healthcare climate, amongst an opioid epidemic and ever-increasing medical expenses with many having inadequate pain control on higher opioid regimens, alternative strategies considering both optimal pain relief and healthcare expenditure are highly desired.

**Conclusion**

LDN has been defined as the regular administration of naltrexone, usually on a daily basis, in doses that range from 0.5 to 5 mg. LDN has shown promising results in a number of chronic pain conditions, including multiple sclerosis, Crohn’s disease, and fibromyalgia. For patients with acute pain who are taking LDN, nonopioid analgesics should be prioritized. When opioids are nec-

**TAKE-HOME POINTS**

- Standard, FDA-approved dosage of naltrexone ranges from 50 mg to 100 mg, while low-dose naltrexone dosages range from 0.5 mg to 5 mg.
- Fractures, joint dislocations, musculoskeletal pain, and abdominal pain are the most common diagnoses that lead to opioid prescription, according to research into examining urgent care in-clinic opioid prescriptions.
- Most commonly reported sides effects of LDN include headache, insomnia, and nightmares.
- While LDN is unlikely to precipitate withdrawal symptoms for patients on opioids at these low doses, it is prudent to recommend that patients on continuous opioid therapy wean entirely off opioids before initiating LDN.
necessary. FDA-approved naltrexone doses ranging from 50 to 100 mg for the treatment of alcohol- and opioid-use disorder often involve a higher dose to overcome antagonism and cautious titration to take effect. In contrast, off-label LDN regimens typically do not require increased dosages of opioids and are largely dependent on patient-specific tolerance.

Close monitoring and prompt follow-up are critical when concurrently administering opioids and naltrexone. As research continues on its application and benefits, LDN treatment among the urgent care population is expected to increase.

As such, information on management of LDN regimens in the urgent care setting is needed in order to continue to support this patient population.

Manuscript submitted March 13, 2023; accepted March 20, 2023.

References

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Changing an Employee from Full-Time to Part-Time Status

Urgent message: Whether due to reduced staffing needs or employee preference, some employees in urgent care are no longer scheduled for full-time hours. Changing from full-time to part-time status, however, may have consequences beyond simply working fewer hours.

Alan A. Ayers, MBA, MAcc

There are any number of reasons why an urgent care owner or operator might want to change the status of an employee from full-time to part-time. Generally speaking, an employer is permitted to do so for any reason whatsoever.1

Pros of Hiring Part-Time Employees
There are a number of benefits to hiring part-time employees, including:

- Lower overhead costs
- Flexibility
- Added support
- Cross-training
- Balanced employees2

The Internal Revenue Service states that “full-time” is at least 30 hours per week or 130 hours per month.3,4 Employers should understand, however, that this definition is for statistical purposes and is not the legal definition. Further, urgent care owners should note that the Fair Labor Standards Act (FLSA) does not define full-time employment or part-time employment at all.5 This is a matter generally to be determined by the employer. Whether an employee is considered full-time or part-time does not change the application of the FLSA, nor does it affect application of the Service Contract Act or the wage and fringe benefit requirements of the Davis-Bacon and Related Acts.5

Full-Time vs Part-Time
Employers must comply with many more requirements for full-time employees than they do for part-time workers. For example, full-time requires that the employer provide Affordable Care Act-compliant health insurance (minimal essential coverage).6 Also, the FLSA—which governs federal wage-and-hour laws—does not cover part-time employment.

There are, however, regulations promulgated pursuant to the statute concerning minimum wage and overtime pay, along with exempt and nonexempt employee classification.

The Patient Protection and Affordable Care Act requires employers with more than 50 employees to offer employees who work 30 or more hours per week health insurance benefits to avoid employer penalties.7,8

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CHANGING AN EMPLOYEE FROM FULL-TIME TO PART-TIME STATUS

If an employee voluntarily requests to transition from full-time to part-time status, it’s best to document the change with a detailed job description differentiating the former, full-time role from the new, part-time role; to provide an offer letter describing the terms of the new, part-time employment; and to document employee acceptance of the new employment terms.

businesses,” those with less than 50 employees, have more discretion in defining coverage eligibility for employees working less than full time and should ensure that the health insurance plan documents are clear regarding benefit eligibility.9

In addition, benefits eligibility when employees’ hours are reduced can be regulated by both internal policy and law, and the urgent care owner should consult with their benefits administrator and legal counsel when defining benefits eligibility in their policies and insurance plan documents.9 Nonetheless, the law doesn’t infringe upon an employer’s rights to determine employee schedules.10

Another rule to note is that if a nonexempt hourly or salaried part-time employee works more than 40 hours in a workweek, the employer must pay them overtime.1 A part-time employee can be nonexempt and salaried. This means that they are eligible for overtime, despite receiving a salary. An employer can adjust the salary to reflect the diminished job responsibilities; however, it can’t be less than the federal or state minimum hourly wage. The part-time salary can be based on a fixed number of work hours for the week, or a fluctuating workweek where the work hours vary from week to week.1

Significantly, it’s usually the employer’s decision as to what represents full-time and part-time status within the company. Ultimately, the determination is based on the requirements for the position.11

At-Will Employment
This discussion should also be framed around the concept of at-will employment. “Employment at-will” means that an employer can fire an employee at any time for any reason (except an illegal one). The employer can also terminate a worker for no reason without incurring legal liability.12

In addition, at-will employment also means that an employer can modify the terms of the employment relationship with no notice and no consequences. An employer, therefore, can alter wages, terminate benefits, or reduce paid time off.12 However, there are three exceptions to the at-will employment doctrine:

The public-policy exception. Under this exception to employment at will, an employee is wrongfully discharged when the termination is against an explicit, well-established public policy of the state.13 This is the most widely accepted exception and is recognized in nearly every state.14

The implied-contract exception. This exception applies when an implied contract is formed between an employer and employee, even though no express, written document concerning the employment relationship exists.13

The covenant-of-good-faith exception. The most dramatic alteration from the traditional employment-at-will doctrine, this exception implies a covenant of good faith and fair dealing into every employment relationship.14 This has been interpreted to mean either that employer personnel decisions are subject to a “just cause” standard or that terminations made in bad faith or motivated by malice are prohibited.14

Again, employers typically can change an employee’s schedule from full-time status to part-time status at any time for any reason.15 Most states require employers to provide some type of advance notice when moving from full-time status to part-time status means a loss of wages.16 The notice requirements are discussed below.

What Must Occur When an Employee Is Reclassified as Part-Time from Full-Time?
Again, employers generally have free reign as far as em-

Whether an employee qualifies for Minimum Essential Coverage under “Obamacare” is based on a “measurement period”—a period defined by the employer ranging 3 to 12 months in which it’s determined whether the employee works an average of 30 hours per week or greater. The measurement period must be applied consistently for all employees. An employee who, say, works 40 hours per week for 6 months and then 20 hours for the remaining 6 months, may still be eligible for health insurance if the 12-month average is 30 hours or greater. It is thus incumbent on employers to understand how the 30-hour minimum is measured when determining benefits eligibility.

An employee may be eligible for COBRA Continuation Coverage upon a reduction in hours that causes the employee to be ineligible for Minimum Essential Coverage. COBRA requires employers with more than 20 employees to offer a temporary continuation of group health coverage in situations in which it would otherwise be terminated.

An employer subject to COBRA is required to notify its group health plan administrator within 30 days after employment hours are reduced. Within 14 days of that notification, the plan administrator is required to notify the employee of his or her COBRA rights.


Employing workers, retaining employees, and reducing employee hours and pay. Employers can legally move an employee from full-time status to part-time status for any reason, including the company no longer wanting to employ full-time workers. A state may require an employer to notify employees in advance of changes to their employment status, pay rate, or work schedule. As a result, urgent care owners should consult legal counsel before switching an employee from full time to part time. For example, in Maryland, in the absence of an employment contract, agreement or policy which states otherwise, an employer may shorten or lengthen an employee’s work hours, or change the shift or times for employment at any time at the employer’s discretion.

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Takeaway
Unless there is an employment contract or bargaining agreement, an urgent care owner can legally reduce an employee’s work hours or cut pay without liability or recourse by the employee.

However, to best protect themselves, employers should establish personnel policies that speak to all key aspects of hiring, employment, discipline, and termination; moreover, they should make certain that their policies comply with applicable federal, state, and local laws. The personnel policies can be part of an employee handbook that should be distributed to all employees.

Required Notice. Under certain circumstances, an employer is required to give 60 days’ notice to legally move an employee from full-time to part-time status. The Worker Adjustment and Retraining Notification (WARN) Act mandates a 60-day advance notice when an employer cuts working hours by 50%. The rule applies when the change impacts 50 or more workers for a minimum of 6 months.

Courtesy Notice. Owners and managers should consider extending the professional courtesy of giving advance notice of changing an employee’s status from full time to part time. This may preserve mutual respect between the parties.

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A Novel Pediatric Resuscitation Course Designed for the Urgent Care Setting

Urgent message: Urgent care centers play a vital role as a gateway into the health system for many children with acute care needs. Some of these needs require identification by the urgent care team, who may then need to stabilize the patient and initiate transfer to optimize clinical outcomes.

Nikhil B. Shah, MD

Citation: Shah NB. A novel pediatric resuscitation course designed for the urgent care setting. J Urgent Care Med. 2023;17(10):23-27.

Introduction

Pediatric office emergencies can be challenging for urgent care staff to manage. These high-stakes events do not occur frequently enough to give staff confidence or experience with the clinical care and team dynamics required for emergency management. Moreover, the consolidation of pediatric hospital care, shifts in utilization patterns, and the increasing prevalence of medically complex pediatric patients has led to a growing influx of critically ill children in the outpatient setting, particularly urgent care. Therefore, it is essential for all members of the care team to be prepared for an office emergency, and every urgent care should train its staff accordingly.

In 2007, the American Academy of Pediatrics (AAP) Section on Emergency Medicine published guidance on essential medications and equipment that outpatient pediatric offices should carry in the event of a pediatric emergency. They advised regular, simulation-based practice to train staff in managing critically ill children and having formal emergency preparedness policies and protocols in place.1

Almost 15 years later, a multicenter study examining the impact of these recommendations found that while many of the outpatient offices in their cohort carried the AAP-recommended supplies, the majority still had not implemented policies or procedures to manage critical events.2

There may be myriad reasons for this. Among them are denial (What is the likelihood this will happen in my office?). Liability may be another concern (If I carry this medication and equipment and my staff are not trained adequately to use it, I could legally be held accountable). Perceived cost might play a role. And, finally, personnel

Author affiliations: Nikhil B. Shah, MD is Senior Director of Provider Training, PM Pediatric Care.
challenges (I just don’t have the staff to do it, it’s just me and a medical assistant). These concerns, though understandable, may not be entirely valid, and should not be barriers to implementation.

One challenge for the outpatient setting is that there is no gold standard certification, course, or simulation sequence to prepare staff for medical emergencies. Many practices have embraced the American Heart Association’s Basic Life Support (BLS), Pediatric Advanced Life Support (PALS), or Pediatric Emergency Assessment Recognition and Stabilization (PEARS) courses to teach emergency preparedness and simulation training.

BLS includes training in CPR, bag-valve-mask ventilation, and AED use, but has a limited scope for urgent care and a pre-hospital focus not specific to the problems of children.

PALS, on the other hand, is pediatric-specific and more comprehensive; however, this course features many advanced resuscitation algorithms that are not within the scope of a typical urgent care.

PEARS, which is also pediatric-specific, teaches the fundamentals of assessment and stabilization and is geared towards a broad target audience. However, it may not be comprehensive enough for urgent care clinicians as it does not cover advanced skills and interventions required to stabilize higher-acuity pediatric patients that may be encountered in the urgent care setting.

While PALS may be the most comprehensive course for pediatric emergency management, it has become increasingly apparent that PALS algorithms, equipment,
[deeper data]

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medications, and personnel requirements do not adequately translate to urgent care. For example, most non-hospital-based urgent care practices will not have a manual defibrillator/monitor, wall oxygen, and suction; nor do they carry many of the medications and other equipment that are found in the hospital setting. Endotracheal tubes and other advanced airway devices may also be noticeably absent in an urgent care due to medicolegal concerns arising from staffing with newer, inexperienced providers who may lack training in their use.

Along these lines, as fewer emergency medicine-trained physicians are being relied upon to staff urgent care offices, the management priority is shifting towards stabilization for transfer rather than providing definitive care. The conundrum may lie in training staff to recognize and manage these “sick” but not critically ill patients efficiently and effectively.

Figure 2a. The RESCUEepc Shock Algorithm. This summarizes the overall approach to recognizing and managing the various forms of shock.

Please refer to the RESCUE Reference Card or your institutional medication formulary for specific dosing recommendations.

Source: PM Pediatric Collective
patients who, for example, may simply be in respiratory distress but not failure.

Finally, the staffing makeup of an urgent care office may place a physician or an advanced-practice provider (APP) alongside a medical assistant/receptionist, x-ray tech, or perhaps a nurse, as the care team that must manage a pediatric emergency. This is in stark contrast to the hospital setting in which resources are seemingly inexhaustible and where a critically ill child is more likely to be managed by a multitude of physicians, APPs, and nurses.

This void necessitates the creation of RESCUEepc (Resuscitation & Stabilization of Children in the Urgent Care Environment - emergency preparedness course)—a novel training curriculum for managing critically ill children that focuses on the unique personnel makeup, medications, and equipment found in a resource-limited ambulatory setting.

RESCUEepc is a blended-learning activity in which participants must complete pre-coursework in the form of online learning modules (3 hours duration) prior to attending an instructor-led classroom training session (4 hours duration). The foundation for the course is a novel, team-based management approach collectively referred to as the “RESCUE Protocol” (Figures 1a and 1b), which utilizes original, evidence-based, urgent care-specific algorithms (Figures 2a and 2b).

The in-person training comprises a brief review of key points from the online pre-coursework, practice-till-perfect approach to learning urgent care-specific

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**Figure 2b. RESCUEepc Stable Tachycardia Algorithm.** This is the detailed, stepwise approach to managing stable tachycardia.

**Initial Impression**
- **PAT**
  - Appearance
  - Work of Breathing
  - Circulation

**Mobilize Resources**
- Alert provider and team
- Obtain necessary equipment

**Critical Interventions**
- Primary Assessment (Survey) & Vitals:
  - Airway
  - Breathing
  - Circulation
- Secondary Assessment (Survey)

**Problem-Focused Exam/Assessment**

**HR > 180 (> 220 if infant)**
- Stable SVT or Stable Ventricular Tachycardia
- **INITIATE TRANSFER**
  - Obtain EKG

**Narrow Complex Tachycardia**
- Probable SVT, see SVT Management
  - Other arrhythmias unlikely

**Wide Complex Tachycardia**
- Probable V-Tach
  - Address H’s & T’s
  - Attach AED in case of decompression

**HR < 180 (< 220 if infant)**
- Probable Sinus Tachycardia (e.g., Fever, Pain, Dehydration, Anxiety)
  - Intervene Accordingly & Reassess

**If symptomatic and/or other abnormal vitals follow**
- Unstable Tachycardia Pathway

---

*Source: PM Pediatric Collective*
skills (e.g., operating an oxygen tank/attaching a regulator, using a portable suction device, AED, etc.), and simulation-based practice scenarios, with an emphasis on managing critically ill children with both full- and minimal staffing complements (Figures 3a and 3b). The course concludes with an online postassessment and megacode scenario.

Successful completion of the course requires a minimum score of 80% on the online exam and meeting all required competencies delineated in the structured debrief tool for the megacode scenario.

The target audience is similar to that of PALS and includes physicians, APPs, and nurses. On the horizon is a high-yield version of the course with just the essentials (diminutively referred to as RESCUEepc-“lite”), intended for clinical support staff such as x-ray techs and medical assistants.

Thus far, RESCUEepc has been deployed in multiple regions, comprising over 90 provider and nurse participants. Key competencies highlighted in the course are tied to various quality metrics that will be tracked over time. Ultimately, the success of RESCUEepc will depend on whether it has an impact on patient outcomes, which will also be measured.

The next steps for RESCUEepc are to complete internal implementation of the course by the end of this year and then launch RESCUEepc-lite for clinical support staff in 2024. One advantage of RESCUEepc is that it is scalable to other outpatient settings and can be tailored to their scope of practice. As such, this customizable version of the course will be known by the apropos acronym, SCOPE (Stabilization of Children with Office Pediatric Emergencies), which is currently under development. The goal is to obtain certification for RESCUEepc and its offshoots by offering them in partnership with an accrediting body and making them available externally to both urgent care centers and other outpatient practices that take care of children.

Urgent care has differentiated itself as a highly specialized environment that has carved its own niche within the modern healthcare landscape. As such, the field deserves to have training that is specific to its needs and not an amalgamation or adaptation of what already exists. While BLS, PALS, and PEARS are valuable tools, there is a compelling need for a resuscitation course specifically designed for urgent care that addresses the unique considerations of this setting and provides the necessary training to effectively manage a sick child.

Manuscript submitted May 1, 2023; accepted May 30, 2023.

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COVID-19 and RSV: Coinfection Requiring Hospitalization

Urgent message: Coinfection with COVID-19 and other respiratory pathogens can lead to a worsening clinical picture and requires careful assessment in the urgent care center.

Marcia Taylor, MD, MSCR, FAAFP

Citation: Taylor M. COVID-19 and RSV: coinfection requiring hospitalization. J Urgent Care Med. 2023;17(10): 28-29.

Key words: COVID-19, SARS-CoV-2, RSV, coinfection, pandemic

Abstract
Patients who present with symptoms suspicious for COVID-19 and other respiratory conditions, regardless of vaccination status, may require a higher acuity of medical care (although mortality may not be affected). This case report describes a patient with COVID-19 and respiratory syncytial virus coinfection which necessitated hospital care despite the individual being vaccinated against COVID-19.

Introduction
During the autumn of 2022, clinicians saw the rise of three different respiratory pathogens: COVID-19, respiratory syncytial virus (RSV), and influenza. This allowed for the possibility of coinfections among these three viruses.

Although research is still evolving in this area, available studies have found that individuals coinfected with influenza required higher use of ICU and mechanical ventilation. However, there was no increase in mortality. Less research is available for coinfections with RSV as studies generally found lower numbers of this compared with influenza. There appears to be a similar trend of more medical treatment modalities needed, but no increase in mortality.

The following is a case presentation of a vaccinated individual with a coinfection requiring hospitalization.

Patient Information
A 69-year-old male presented with a 3-day history of sore throat, cough, nasal congestion, subjective fever, and minimal dyspnea. He had exposures to several family members who were diagnosed with pneumonia, but denied exposure to COVID-19. His past medical
history was significant for hypertension and daily smoking. He did receive the initial series of COVID-19 vaccine plus two boosters. His last booster was approximately 14 weeks prior to presentation.

**Clinical Findings**

Vital signs were temperature 98.9°F, pulse 113, blood pressure 133/71, respirations 18, and room air oxygen saturation of 78%. He was in no acute distress and was able to give his history in complete sentences despite his hypoxia. Lungs were clear to auscultation bilaterally. Cardiovascular exam was significant for tachycardia, but revealed no murmur, rub, or gallop. Abdominal exam was soft and nontender with normal active bowel sounds. HEENT exam was significant for erythema of nose and oral pharynx with clear rhinorrhea.

**Diagnostic Assessment**

Given his level of hypoxia and that this was diagnosed in an ambulatory office setting with limited resources for continued care of severe hypoxia, a very brief and rapid assessment of patient’s symptoms was obtained. He was placed on 2L of oxygen via nasal canal and oxygen saturation improved to 98%. Due to his hypoxia and tachycardia, an ECG was obtained to evaluate for any arrhythmia or myocardial injury that may have been contributing to his symptoms. This ECG revealed normal sinus rhythm and no acute ischemic changes.

Differential diagnosis at this time included COVID-19, bacterial pneumonia, and pulmonary embolism. However, given that the patient had been vaccinated against COVID-19 it was unusual that he was presenting with such severe hypoxia.

PCR testing for SARS-CoV-2/RSV/influenza was obtained in-office, but results were not available prior to the patient being transported to the hospital. Chest x-ray was not obtained due to the portable system not being available.

The patient was transferred to the emergency department via ambulance services. Chest x-ray obtained in the ED did not reveal any acute process. D-dimer obtained in the ED was negative. While in the ED, his PCR test returned positive for both COVID-19 and RSV. He was admitted to the COVID-19 unit of the hospital and treated with IV steroids and remdesivir. His clinical condition improved and he was discharged from the hospital 7 days later. At hospital follow-up 8 days later his symptoms were resolved; he denied any breathing difficulties and no longer required supplemental oxygen.

**Discussion**

Two studies’ coinfection rates of influenza and RSV ranged from 8.3% to 22.3% and 16.7% to 22.3%, respectively. Researchers have theorized that coinfection may induce a more severe inflammatory response and thus a worse clinical picture. Studies have suggested that patients with coinfection were more likely to require hospitalization, longer ICU stays, and longer mechanical ventilation.

Recent NIH guidelines state that coinfections have been reported and may complicate both the patient’s treatment and recovery. CDC guidelines state that a positive test for COVID-19 or influenza does not exclude that the other virus could be present. As the fall of 2022 saw a rise in both RSV and influenza compared with prior years, further research will be needed in this field to develop guidelines and treatment algorithms for patients with coinfection. As coinfections do have an increased risk in morbidity, but likely not mortality, these patients should be considered for treatment with antiviral medications. These patients may also necessitate closer follow-up (as telehealth or home pulse oximetry monitoring) given the higher need for hospital treatments.

**Informed Consent**

The patient consented to publication of this case report.

**References**

[re\-v\-en\-ue  o\-p-ti\-m-i\-za\-tion]
Defined

Are shifting patient demands, new technologies, and a changing healthcare ecosystem making it hard to stay profitable? Remove complexities in urgent care billing, coding, payer contracts, and compliance to get the reimbursement you’ve earned.

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| **ABSTRACTS IN URGENT CARE** |

- Pediatric Lyme Disease and Race
- Predictive Value (or Not?) of Hyperacute T-Waves
- Rapid Influenza Diagnostic Tests and Decision-Making
  - IVAN KOAY, MBCHB, FRNZCUC, MD

| **Lyme Disease Diagnosis in Children of Different Racial Groups** |

**Take-home point:** Black children with Lyme disease were more likely to have arthritis rather than cutaneous findings at the time of diagnosis.


**Relevance:** Erythema migrans (EM) is commonly felt to represent the first clinical finding in patients with Lyme disease. EM is understandably variable in its appearance depending on skin tone. Appreciating these differences can help clinicians approach Lyme as a diagnostic consideration more equitably across ethnicities.

**Study summary:** This was a prospective cohort study at eight EDs participating in the Pedi Lyme Net clinical research network in the eastern U.S.

The study enrolled children undergoing clinical evaluation for Lyme disease. Demographics collected included historical and physical examination findings. Race was reported by the child's caregiver. Treating clinicians assessed the presence or absence of EM (as well as single or multiple lesions) on physical examination and, if present, reported the diameter of the largest lesion.

The authors screened 4,003 children; 957 children (23.9%) had confirmed Lyme disease. Lyme was confirmed in 88 (9.2%) based on a diagnostic EM lesion alone, while 781 (81.6%) had a positive two-tier serology alone, and 88 (9.2%) had both. Black children were less likely to have Lyme disease diagnosed in the ED after adjustment for age and local Lyme disease incidence (adjusted odds ratio [aOR] = 0.63; 95% CI (0.48-0.81)). Among children with Lyme disease, Black children were less likely to be diagnosed with cutaneous manifestations (aOR = 0.34; 95% CI, 0.14-0.79) and more likely to be diagnosed with a swollen joint on examination (aOR=3.68; 95% CI, 2.13-6.36).

**Editor’s comments:** The authors compared Black children with other races in a binary manner. Other skin tones were not examined. Additionally, race has been recognized as a social construct rather than a biologic variable and correlation with actual skin tone is inexact. While a less obvious EM rash may drive this pattern of diagnosis, it’s worth noting that other social determinants of health associated with race other than skin tone may also lead to later presentations in cases of Lyme.

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| **Do Hyperacute T-waves Predict Impending Acute Myocardial Infarction?** |

**Take-home point:** T-wave amplitude greater than the 95th percentile had no useful diagnostic value in determining acute myocardial infarction (AMI) in this study.

**Citation:** Koechlin L, Strebel I, Zimmermann T, et al. Hyperacute T wave in the early diagnosis of acute myocardial infarction. *Ann Emerg Med*. 2023 Feb 9:S0196-0644(22)01327-0.

**Relevance:** Pronounced T-waves, commonly referred to as “hyperacute T-waves,” have been cited as harbingers of impending AMI.

**Study summary:** This was a post-hoc analysis of the prospective international multicenter Advantageous Predictors of Acute Coronary Syndrome Evaluation of patients presenting to the ED with acute chest discomfort. Patients recruited had recorded digital 12-lead ECG data that al-

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Ivan Koay MBChB, MRCS, FRNZCUC, MD is an urgent care physician and medical lead, Kings College Hospital Urgent Treatment Centre, London; Convenor Ireland and UK Faculty of the Royal New Zealand College of Urgent Care; and Independent Assessor European Reference Network, Andalusian Agency for Healthcare Quality.
“Estimates from the per-protocol analysis showed no reductions in antibiotic prescriptions between both groups and no differences in infection-related and overall hospitalization rates between both groups.”

Out of 4,323 patients prospectively enrolled, 2,457 were eligible for the analysis of ECG characteristics. The authors found 445 patients (18%) were ultimately diagnosed with AMI, 82 (3.3%) of whom had a STEMI, and 363 (15%) of whom had an NSTEMI. Patients with AMI tended to have smaller T-wave amplitudes than patients with other causes of chest pain. T-wave amplitude greater than the 95th percentile had no useful diagnostic value in this sample.

**Editor’s comments:** This was an ED-based study and a post-hoc analysis. Patients with end-stage renal disease were not included in the study. Despite these limitations, it seems reasonable that we begin to rethink the classic dogma that prominent T-waves are necessarily concerning as isolated findings.

### Availability of Point-of-Care Tests and Their Effect on Decision-Making

**Take-home point:** There were significant differences in clinician decision-making when rapid influenza diagnostic tests were used during clinical encounters with patients who presented with acute respiratory infection symptoms.

**Citation:** Stamm B, Tammerius J, Reddy S, et al. The influence of rapid influenza diagnostic testing on clinician decision-making for patients with acute respiratory infection in urgent care. *Clin Infect Dis.* 2023 Feb 1; ciad038.

**Relevance:** Most urgent care centers have access to rapid influenza diagnostic tests (RIDT). The use of these tests is frequently a subject of debate.

**Study summary:** This was a post-hoc analysis of data from another study that investigated the patient’s ability to self-collect nasal swabs for rapid testing. Two sets of analyses were performed. The primary analysis compared the RIDT-tested population with a matched non–RIDT-tested population to determine if differences in clinical decision-making existed when treating patients who presented with ARI symptoms in the presence or absence of an RIDT. The secondary analysis compared participants only in the RIDT-tested population to determine if RIDT (+) patients are treated differently based on the diagnosis of influenza compared with RIDT (−) patients.

Data from 1,166 participants were analyzed. The authors found an 85% reduction in the odds of prescribing an antibiotic in RIDT (+) participants (odds ratio [OR] = 0.15; 95% CI, 0.08–0.27; P<.0001) and a 30% reduction in the odds of prescribing an antibiotic in the RIDT (−) participants (OR, 0.70; 95% CI, 0.57–0.86; P=.001).

The RIDT-tested population, regardless of RIDT result, had a 48% reduction in the odds of antibiotics prescribed compared with non–RIDT-tested participants (OR, 0.52; 95% CI, 0.43–0.63; P<.0001). A 92.3% increase in the odds of prescribing antivirals to RIDT (+) participants was identified when compared with the matched non–RIDT-tested population (OR=10.23; 95% CI, 5.78–19.72; P<.0001).

**Editor’s comments:** This was a rare UC-based study, making the results more relevant than most prior studies on this topic for UC clinicians. In this study, RIDT use reduced antibiotic prescribing and increased antiviral prescribing in patients with acute respiratory illness.

It is worth noting there was a presumption that this was best practice. However, this does not always correspond with evidence-based practice. For example, antivirals that are initiated late in the course of illness or in otherwise healthy patients with influenza may be of no benefit.

### Effects of Regular Feedback on Antibiotic Prescribing Rates

**Take-home point:** In this study, quarterly personalized antibiotic prescribing audits and feedback with peer benchmarking did not reduce antibiotic prescribing amongst primary care physicians.


**Relevance:** Antibiotic prescribing metrics and feedback have become common means of evaluating clinicians in UC practice. It is unclear to what extent this influences practice patterns.

**Study summary:** This was a randomized controlled trial conducted among 3,426 primary care physicians in Switz-
erlund with medium-to-high antibiotic prescription rates over a 2-year period. Eligible physicians were randomized to the intervention and control groups in a 1:1 ratio. Quarterly antibiotic prescription feedback was compared with overall prescription rates and antibiotic type per 100 consultations as well as personal prescription rates for the same 3 months of the preceding year. Each category was also compared with the prescription rates of peer physicians. Physicians in the control group were not informed that their antibiotic prescription was monitored for the duration of the trial.

The authors found antibiotic prescription rates in the intervention group additionally increased during the first year by 0.5% (95% CI, –0.1% to 1.2%) and during the entire trial period by 0.5% (95% CI, –0.2% to 1.3%) when compared with the control group.

Prescription rates for specific antibiotics also increased during the intervention period. Estimates from the per-protocol analysis showed no reductions in antibiotic prescriptions between both groups and no differences in infection-related and overall hospitalization rates between both groups.

Editor’s comments: The study did not examine the appropriateness of prescriptions. This trial involved only Swiss primary care physicians. It is unclear to what extent these results can be generalized to nonphysician prescribers in UC in other countries.

Anterior Shoulder Dislocation Reduction Techniques: Which Is the Best for Success?
Take-home point: The Boss–Holzach–Matter (BHM)/Davos technique and the Fast, Reliable, and Safe (FARES) technique demonstrated the most favorable values for successful reduction. The FARES technique had the lowest rating for pain associated with reduction.


Relevance: Anterior shoulder dislocation is a common injury. UC practitioners should have familiarity with the most effective, safe, and pain-free methods to attempt initial reduction, especially as delays to ED care can be substantial.

Study summary: This was a systematic review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to evaluate the various closed shoulder dislocation reduction techniques.

The authors screened 1,833 records by title and abstract and included 14 trials that enrolled adult patients with an acute anterior shoulder dislocation, and compared specific reduction methods. Surface under the cumulative ranking (SUCRA) was calculated to evaluate the superiority (or ranking) of each method.

In their systematic review, the authors found the FARES method was significantly less painful than the Kocher technique. Success rates of techniques, such as FARES, BHM, Spaso, modified external rotation, external rotation, and scapular manipulation techniques tend to be higher than others, although many of the results were similar.

In the SUCRA plot of reduction time, modified external rotation was the best in the overall analysis, followed by the FARES method which was similar in value. In comparison of success rates, FARES, Spaso, external rotation, and Milch were significantly more effective than Stimson. The FARES technique was rated as the least painful.

Editor’s comments: The number of cases for each method was not large enough to evaluate the safety of each technique, and age restrictions for the included studies limits its extrapolation to pediatric patients. As shoulder dislocations are unlikely to be presentations that many UC providers face regularly, this study gives guidance toward the several best methods to become familiar with.

“The most common diagnosis categories for undertriaged visits, including return visits within 14 days, were skin and soft tissue pathology, other gastrointestinal pathology, unspecified viral infections, upper respiratory pathology, and asthma.”

Undertriaging of Children of Non–English-Speaking Parents
Take-home point: Children accompanied by caregivers whose preferred language is something other than English were more likely to be undertriaged in this pediatric ED-based study.


Relevance: Equitable care is an issue especially among non–English-speaking patients and parents. The under-
estimation of acuity at triage in UCCs and EDs can result in delays in care.

**Study summary:** This was a retrospective cross-sectional study of visits for patients at two pediatric EDs in the U.S. Patients with a documented caregiver-preferred language in the electronic health record were included in the study.

The authors defined undertriage as encounters in which the patient was assigned an Emergency Severity Index (ESI) score of 4 or 5 and subsequently required hospital admission or significant ED resources, including nebulizer treatments, supplemental oxygen, or intravenous (IV) placement. An additional indicator of undertriage was defined as patients with an ESI score of 4 or 5 who returned to the ED within 14 days and required admission.

The authors found that 124,775 patients were triaged as an ESI of 4 or 5, of which 114,266 (91.6%) had a preferred language documented for analysis. They found that 80.2% had caregivers who preferred English, 19% had caregivers who preferred Spanish, and 0.8% had caregivers who preferred any of 47 other languages. Children of caregivers preferring non-English languages were significantly more likely to be inappropriately triaged (under- triage rate 3.7% (English) vs 4.6% (Spanish) vs 5.9% (other languages)). The most common diagnosis categories for undertriaged visits, including return visits within 14 days, were skin and soft tissue pathology, other gastrointestinal pathology, unspecified viral infections, upper respiratory pathology, and asthma.

**Editor’s comments:** Parental English fluency may be less relevant for older children who may themselves be fluent in English. There was no comment in the study regarding whether interpreters were used in these encounters. Regardless, this is an important reminder that language barriers present obstacles to safe and equitable care in such cases require increased vigilance on the part of clinicians.
The makeup of the urgent care industry has changed considerably since its inception in the 1970s. At the time, it was a radical idea to see patients with non-emergent complaints on a walk-in basis. Certainly hospitals wanted no part of it; that’s what they had emergency rooms for. Rather, the UC industry’s founders tended to be in private or small group practices, but unsatisfied with how they were practicing.

Over the decades that followed, it became clear that offering patients the chance to see a top-notch healthcare provider whenever the need arose was not just convenient for them—it could also be quite profitable for the operator. Now health and hospital systems took note, and then some.

Today’s ownership structures reflect that delayed acceptance. There are still some urgent care businesses owned by entrepreneurial healthcare providers, but many are now part of systems operated by or affiliated with hospital and healthcare systems.

Last month, we shared with you a list of the largest “private” urgent care operators in the country, by number of locations. In this issue, we bring you an accounting of the largest urgent care operators affiliated with hospitals and health systems, according to April 2023 data from National UC Realty.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Entity Name</th>
<th>Number of Clinics</th>
<th>Health System Affiliation</th>
<th>Unaffiliated</th>
<th>Urgent Care Branding or Hospital Affiliations</th>
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Data source: National UC Realty.

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**CORE CONTENT IN URGENT CARE NURSING AND MEDICAL ASSISTING**

Comprehensive Training for Nurses and Assistive Staff in the Urgent Care Setting

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A 45-Year-Old with Chest Deformity

A 45-year-old man presents with “asthma-like symptoms” that he says have “come and gone” for several years. He denies chest pain or a sense of racing heartbeat. A chest deformity is clear from observation.

View the images taken and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.
Differential Diagnosis
- Pectus carinatum
- Pectus excavatum
- Poland syndrome
- Pentalogy of Cantrell

Diagnosis
The x-ray shows an angulated appearance of the lower sternum. This patient was diagnosed with pectus carinatum, otherwise known as a pigeon chest, in which the sternum protrudes anteriorly.

Learnings/What to Look for
- Shortness of breath and exercise intolerance are common symptoms
- Radiographic features include two patterns of sternal protrusion: chondrogladiolar (protrusion of the middle and lower sternum) and chondromanubrial (protrusion of the manubrium and upper sternum)
- Pectus carinatum can be associated with scoliosis, Marfan syndrome, and other disorders
- Familial occurrence is reported in approximately 25% of cases and usual diagnosis occurs during childhood or adolescence

Pearls for Urgent Care Management
- Nonsurgical external bracing may be effective, especially in adolescents
- Referral for surgical consideration may be necessary

Acknowledgement: Images and case provided by Experity Teleradiology (www.experityhealth.com/teleradiology).
A 23-Year-Old with a Pruritic, Spreading Rash

A 23-year-old woman presents with a severely pruritic rash that developed on her leg and is spreading. The patient reports that 2 days prior to onset, she had gone hiking with her dog. She recalls going off-trail and brushing up against “woody vines and shrubs.” She denies sustaining insect bites and notes that the sun was particularly intense that day, so she wonders if this may be a sun reaction. She appears well and has no systemic symptoms.

On examination, there are multiple erythematous and edematous, vesiculated and crusted papules and plaques; some are linear and some geometric in outline. View the image taken and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.
Differential Diagnosis
- Atopic dermatitis
- Arthropod bite or sting
- Urticaria
- Poison ivy dermatitis

Diagnosis
This patient was diagnosed with poison ivy dermatitis (also known as Toxicodendron dermatitis, along with poison oak and poison sumac). This is a contact dermatitis resulting from a type IV hypersensitivity reaction in sensitized individuals to the oleoresin urushiol. Urushiol is found in most parts of the plants from this genus, which is a member of the Anacardiaceae family.

Learnings/What to Look for
- The Toxicodendron genus is pervasive throughout the continental United States, southern Canada, and Mexico and is mostly found below 5,000 feet of altitude. It can also be found in Asia, Africa, Australia, and New Zealand.
- Up to 75% of the North American population is sensitized, and the condition has no predilection based on age, sex, race/ethnicity, or skin type.
- Occupational and recreational exposures are prevalent.
- Rash begins to appear within 1-2 days after exposure in previously sensitized individuals; in the newly sensitized, it may be delayed 2-3 weeks.
- Occult contact may occur from contaminated clothing, gear, or vegetation, even after months have elapsed.

Pearls for Urgent Care Management
- After exposure, remove and wash contaminated clothing and wash the entire body with soap.
- Over-the-counter treatments include soothing measures such as oatmeal baths, symptomatic relief measures such as calamine lotion, and oral anti-histamines to help with itching.
- Glucocorticoid therapies such as topical clobetasol or oral prednisone may be effective for severe or persistent cases.

A 67-year-old male presents to urgent care complaining of pleuritic chest pain and dyspnea. He has a history of lung cancer, but denies known cardiac history.

View the ECG taken and consider what your diagnosis and next steps would be.

(Case presented by Benjamin Cooper, MD, MEd, FACEP, Department of Emergency Medicine, McGovern Medical School at UTHealth Houston.)
Differential Diagnosis
- Early repolarization
- Hyperkalemia
- Acute pericarditis
- ST-elevation myocardial infarction
- Brugada syndrome

Diagnosis
This patient was diagnosed with acute pericarditis. The ECG reveals sinus tachycardia with a rate of 108 beats per minute. There is diffuse, concave up ST-segment elevation without reciprocal changes and diffuse PR-segment depression (Figure 2).

Acute pericarditis is inflammation of the pericardium, extending to the epicardium. Common causes include drugs (eg, hydralazine, penicillin), infections (eg, bacterial, viral, or fungal), malignancy, rheumatologic conditions (eg, lupus, rheumatoid arthritis, etc.), sequelae of myocardial infarction (eg, Dressler syndrome), uremia, and idiopathic.1 It is diagnosed by meeting two of four criteria (Table 1).

Differentiating pericarditis from ST-elevation myocardial infarction (STEMI) can be challenging, but the majority of cases can be accurately diagnosed with careful attention to several electrocardiographic features.

Features that suggest pericarditis over STEMI include any of the following: diffuse concave up ST-elevations without reciprocal changes, PR depression, PR elevation in aVR, ST-elevation in lead II greater than lead III, and Spodick’s sign (downsloping of the TP segment).3

The test characteristics of any single electrocardiographic feature are insufficient to rule in/out pericarditis; the feature with the highest odds ratio for predicting STEMI (over pericarditis) is reciprocal ST-depressions.

Acute pericarditis tends to follow a natural progression of electrocardiographic findings. The first 2 weeks are characterized by the aforementioned findings.

Over several weeks, the ST-elevation resolves, and the T waves flatten. Next, the T waves invert. Finally, over several weeks, the ECG returns to the patient’s baseline (Figure 3).4

Treatment includes nonsteroidal anti-inflammatory medications tapered over 3-4 weeks and colchicine for 3 months. It’s also reasonable to prescribe a proton pump inhibitor to counteract the gastrointestinal side effects. Corticosteroids are reserved for patients with contraindications to initial therapy, but are not preferred as they are associated with increased recurrence.2

Early repolarization can cause similar electrocardiographic features, but this patient’s presenting symptoms make acute pericarditis the most likely diagnosis.

Hyperkalemia can cause several electrocardiographic changes, but diffuse concave up ST-elevation like those seen in acute pericarditis has not been described.

Brugada syndrome is a sodium channelopathy that causes characteristic ST-segment elevation in leads V1 and V2.

Additional examples may be found in the ECG Stampede glossary (www.ecgstampede.com/glossary).

Learnings/What to Look for
- Electrocardiographic features that suggest acute pericarditis include diffuse concave up ST-elevations without reciprocal changes, PR depression, ST-elevation in lead II greater than lead III, and Spodick’s sign (downsloping of the TP segment)
- The presence of reciprocal changes or ST-elevation greater in lead III than lead II is highly suggestive of STEMI

Pearls for Urgent Care Management
- Patients with a clear diagnosis of acute pericarditis
with a benign etiology and reliable follow-up can be initiated on nonsteroidal anti-inflammatory medications with or without colchicine. If the diagnosis is in question, the etiology is unclear, or the patient lacks reliable follow-up, transfer to an emergency department.

References

Case courtesy of ECG Stampede (www.ecgstampede.com).
Modifier 25: What You Need to Know

PHYLLIS DOlobberstein, CPC, CPMA, CPCO, CEMC, CCC

Modifier 25 is used to indicate that a significant, separately identifiable evaluation and management (E/M) service was required on the day of a minor surgical procedure. The procedure performed must have a global period of 0 or 10 days. An example of this is a laceration repair.

Modifier 25 is overused in the industry and has been under scrutiny from payers for decades. Now private payers are implementing policies to monitor the use of modifier 25, or in some instances, reduce payment when it is used.

Starting in 2023, Horizon is paying for problem E/M services (i.e., 99202-99215) with a 25 modifier at 50% of their allowable if a minor surgical procedure is reported on the same date. UnitedHealthcare is also considering this approach.

Cigna attempted to implement a policy which would require medical records to be required at the time of claim submission when practices bill a minor surgical procedure with an established E/M code (99212-99215). Fortunately, Cigna has since delayed implementation due to industry backlash over the administrative burden this would cause.

So, what is an appropriate use of modifier 25? To understand that, you first need to understand why modifier 25 is needed.

Every procedure has a degree of evaluation built into its allowable. Pricing includes preoperative, intraoperative, and postoperative work. Billing an E/M separately from the procedure would mean that a practice is getting paid for the same service twice, also known as “double dipping.”

There are times, however, when the medical decision-making to diagnose a patient and then order a procedure is beyond the routine level of evaluation included in the pre- and postoperative work. In these instances, the E/M is identified as a separate payable service by appending modifier 25.

Per the American Medical Association, pre- and postoperative services typically associated with a procedure include the following and cannot be reported with a separate E/M services code:

- Review of patient’s relevant past medical history
- Assessment of the problem area to be treated by surgical or other service
- Formulation and explanation of the clinical diagnosis
- Review and explanation of the procedure to the patient, family, or caregiver
- Discussion of alternative treatments or diagnostic options
- Obtaining informed consent
- Providing postoperative care instructions
- Discussion of any further treatment and follow-up after the procedure

Documentation to use modifier 25 should show the amount of work performed is more than the level of effort normally performed with the procedure.

Examples:

- **Appropriate use:** A patient presents with severe pain in the right knee. The evaluation determines the patient has arthritis and the decision is made to perform a large joint injection. This procedure has a 0-day global period, which means any E/M performed on that same date is
included in the injection procedure. Modifier 25 should be appended to the E/M since the procedure was unplanned. The medical decision-making involved with diagnosing the patient and selecting the management option of a large joint injection is “significant and separate” from the preoperative work for the procedure.

- **Inappropriate use:** The same patient cannot get the injection on that date. They plan to come back the next day for a planned injection. There is no change in their condition. The decision to perform an injection was already made the day before. A separate E/M on the date of the injection, and thus modifier 25, should not be reported with this planned procedure.

- **Appropriate use:** The same patient returns for a second planned injection. However, their condition has worsened, and this requires additional evaluation to determine if an injection should be done. The patient’s treatment plan is altered by adding a prescription. Modifier 25 should be appended to the E/M because the circumstances of their treatment has changed.

Since urgent cares are usually seeing patients for new conditions, a separate E/M code with modifier 25 is usually correct coding.

There are a number of myths surrounding the use of the 25 modifier. The most common are:

- **My diagnosis for the E/M cannot be the same as the procedure.** Incorrect. Different diagnoses are not required to report a separate E/M with modifier 25.

- **Modifier 25 is needed whenever there is more than one code on the claim.** Incorrect. As discussed previously, only minor surgical procedures include payment for pre- and postoperative work. Diagnostic testing should be paid separately from the E/M services. Per correct coding, modifier 25 is not required.

For more information, the AMA has published a handout, Reporting CPT Modifier 25; it’s accessible at https://www.ama-assn.org/system/files/reporting-CPT-modifier-25.pdf.
Unique Opportunity to Own/Operate 3 urgent care clinics strategically located in the beautiful Southwest.

One clinic is located in Rio Rancho, Albuquerque’s most rapidly growing neighborhood to the north; a second is in Santa Fe, the City Different and home to wealthy second-home-owners and a tourist-driven economy; the third is integrated into the prestigious Angel Fire Resort, with its well-established winter skiing and summer mountain biking facilities. All 3 clinics have been operational and profitable for 15-25 years and are fully staffed and turn-key. The business owners are retiring and would like to turn the operation over to someone who shares their vision of providing quality care with compassion and efficiency.

This offering would be ideal for an experienced physician to work shifts in one or all 3 locations and also be the medical director, or for a physician who desires to be the medical director for all 3 and staff with the current providers.

Contact William Kotsch wkotsch@gmail.com for more information.
There’s No Casual Approach to Improving Antibiotic Stewardship—but When You Make the Effort, It Works

Improving antibiotic stewardship was an industry-wide mandate even before a 2018 study indicated that urgent care appeared to be more likely than other settings to over-prescribe for common infections. While the methodologies could be questioned, especially in their take on the nature of urgent care visits, the point was well taken. Since then, urgent care as a whole has sought to improve providers’ prescribing habits more aggressively than ever.

The initial awareness campaigns did a great job of raising the profile of the issue, but actually seeing results has taken more time—and, more to the point, focus. Really making an effort to get urgent care providers to take note requires a concentrated effort. Emerging data suggest that it may not take much more than that to change the curve.

A study published by *JAMA Network Open* is an excellent, and very timely, example. Researchers found, at baseline, that 48% of 493,724 urgent care encounters with patients who had a respiratory condition resulted in an antibiotic prescription. As the figure below illustrates, over the following year, interventions (provider and patient education; electronic health record tools; a transparent clinician benchmarking dashboard; and media) succeeded in lowering that figure to 33%. Perhaps most impressive is how quickly prescribing behavior was changed: Prescription rates fell 22% early on and continued to fall 5% per month throughout the 1-year intervention period.

As the authors wrote: “This study's findings suggest that a multifaceted antibiotic stewardship initiative was associated with reduced antibiotic prescribing for UC respiratory conditions, and that such initiatives in large UC networks may decrease inappropriate antibiotic prescribing.”

**Reference**
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