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A Crisis of Trust



The conversation was going nowhere. After 15 minutes of explaining my concerns about the possibility of COVID-19, the lack of indication for antibiotics, the unreliability of rapid testing, I was no closer to satisfying my patient, Mrs. Fletcher, than when I first introduced myself. Joan Fletcher was a 40-something working mother of three who came to urgent care on a mission, as many patients do. The reason for her visit: an antibiotic prescription and a note allowing her to return to work. My medical opinion was not on her shopping list.

I used all the basic techniques (and some more advanced ones, too) to convince her that I felt she had COVID-19 and not bacterial sinusitis. I listened to her concerns and addressed them directly. I used analogies, cited research, and shared stories of similar patients who ultimately turned out to have COVID-19. I was polite and respectful in my tone and diction. It got me nowhere. Joan Fletcher was a rock.

It wasn't until after she left the clinic, on her way to decimate my Net Promoter Score, that I realized the fundamental issue with our disagreement. I had not met her expectations, certainly, but that was not the root of the conflict. Mrs. Fletcher simply didn't trust me. And without trust, it's no wonder she saw me as she did: a vending machine that had taken her money and left her candy bar dangling from the tip of the spiral dispenser.

In the midst of the pandemic, we are facing an underappreciated crisis in urgent care, as well as in healthcare as a whole—to put it simply, we lack our patients' trust. Frankly, even in pre-COVID times, winning the confidence of our patients was rarely an easy task in UC. You're probably well aware of some of the more common obstacles we face, such as doubts about our training and urgent care in general, as well as the lack of pre-existing relationship with our patients.

However, with this backdrop, the COVID-19 era has introduced new barriers to building rapport with patients. We'd be wise to be mindful of the impact of these impediments on not only patients' experience, but also our own. Having settled into the "new normal," it's easy to lose sight of how many of the details in our interpersonal interactions with patients have changed dramatically. Before the pandemic, I'd start each encounter by walking into the patient's room with a warm smile

on my face, introducing myself with a handshake. I'd then pull up a chair and lean in to hear their story. Now, all the mechanics of this first impression have been restricted. Attempting any similar choreography during the pandemic would do far worse than compromise trust.

Instead, in the name of infection control and the social contract, I enter the patient's room wearing a surgical mask (or two) and a face shield. They're often wearing the same. In a job where the ability to communicate with patients defines success, physical barriers cripple the interaction before it even begins. It's like being a sprinter coming off starting blocks with your shoes tied to one another. Even if you're Usain Bolt, you're going to stumble.

Over millions of years, natural selection has honed humans' ability to subconsciously assess the trustworthiness of others remarkably rapidly in one way: by looking them in the face. Cognitive neuroscientists have pinpointed this function to the amygdala, king of our limbic system and the factory of our fears. Studies evaluating our ability to judge the safety of others by looking at their face have shown that we need merely a few milliseconds before we've made up our minds about who to trust. However, when we cannot fully visualize a face, research suggests that we default to distrust. This makes sense. Those ancestral humans who erred on the side of blind trust in ambiguous situations probably didn't survive as much on average to pass on their DNA.

So how can we balance these competing priorities of responsible mask use and earning the confidence of our patients? Well, mask wearing may be an impediment to trust, but I believe the "either-or" assessment of this situation is a false dichotomy. A SARS-CoV-2 exposure, according to the Centers for Disease Control and Prevention, occurs when we are within 6 feet of an infected individual for longer than 15 minutes. Therefore, it is safe and reasonable, especially as a growing number of UC clinicians have been vaccinated, for us to show our faces from a distance for a moment as we greet our patients.

For some of you, depending on your personal level of concern for COVID-19, age, and health history, this may seem impractical or even reckless. We are all battling varying levels of burnout and COVID-19 exhaustion; certainly, I'm not advocating for any behavior that inspires significant concerns for your personal safety. However, hopefully, with vaccination, lower

“A simple gesture can help establish a connection with the patient, and more trust than you could expect to earn in 15 minutes of listening patiently and explaining.”

rates of infection, and better understanding of transmission, our own amygdalas will quiet. After all, fearing those we care for is not a sustainable psychology for career longevity. Furthermore, studies to date on healthcare worker (HCW) infections have shown that with adherence to CDC guidelines for PPE and distancing, HCWs who contracted COVID-19 generally got sick because of a non-patient exposure.

I have experimented with this form of greeting and have found that it serves as a wonderful ice breaker. As I enter the exam room, I briefly reposition my mask and shield to show my face and, with a wide smile and eye contact, I greet them. “Hi, I’m Dr. Russell and I’ll be your doctor today. I’ll pull my mask up when I get closer, but I just wanted you to know

there’s a human being taking care of you.” I’m almost universally met with a softening in body language—as if we are both transported, albeit momentarily, to a less chaotic time. The connection this simple gesture establishes is among the biggest efficiency hacks I’ve stumbled upon during the COVID era. In a few seconds, I’m able to earn more trust than I could with Mrs. Fletcher despite 15 minutes of listening patiently and explaining. And during fearful and uncertain times, ravaged by the parallel pandemics of burnout and exhaustion on both sides of the exam table, mutual trust—safely and quickly earned—may be the thing patients and providers alike need the most. ■

Resources

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*JUCM has garnered 17 awards in the prestigious American Society of Healthcare Publication Editors annual awards competition.



CLINICAL

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Building the Body Up Just to Break the Body Down: A Look Into Black Market Substance Use Among Young Athletes and Bodybuilders

They're unapproved, often undetectable, and should be unavailable. That doesn't mean patients can't find a way to get their hands on performance-enhancing medications on the black market, however. Since they may not be forthcoming about using illegal substances, even when confronted with dangerous side effects, you need to be vigilant for the red flags.

Rachael M. Poff, PA-C and Christina E. Gardner, DHSc, MBA, PA-C

CASE REPORT

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An Atypical Presentation of Thyroid Storm: A Stark Yet Potentially Lethal Diagnosis



There's no obvious diagnosis when a patient presents with malaise, anorexia, fatigue, myalgias, and weakness. Adding suicidal ideation to the mix only reinforces the urgency. Would thyroid storm be on your radar?

Amrita Mahajan, BA and Lindsey Fishy, MD

PRACTICE MANAGEMENT

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Seven Digital Marketing Tactics for Every Urgent Care Center



Digital marketing is an essential component of any urgent care center's promotional outreach efforts. If it's not central to yours, it's time to pick up your game.

Alan A. Ayers, MBA, MAcc

ORIGINAL RESEARCH

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Do Respiratory Outpatient Clinics Decrease Bronchiolitis Reevaluation Rates? Observational Data from a Quality Improvement Project



If you treat children, you treat bronchiolitis in your urgent care center. Often, patients require reevaluation. What effect do respiratory outpatient clinics have?

Prema D. Souza, MD; Aimy Patel, MD; Brian Lee, PhD; and Amanda Nedved, MD

PEDIATRIC URGENT CARE

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IgA Vasculitis in Children: Beyond the Rash



IgA vasculitis may be the most common systemic vasculitis in childhood, but the fact that there are several complications that require hospitalization and aggressive treatment should command your attention.

Diana Sofia Villacis Nunez, MD; Amit Thakral, MD, MBA; and Paireen Shah, MD

NEXT MONTH IN JUCM

Who's ready for a vacation? OK, it's a little premature, but summer getaway season is coming soon—and unlike last year, thanks to the growing success of efforts to fight the COVID-19 pandemic, it looks like we may actually have some options. The question is, how will patients need to prepare for whatever their destination may be? If you want them to visit your urgent care center instead of a single-specialty travel medicine clinic, you'd better know your stuff. Read Pretravel Consultations in the Urgent Care Setting in the May issue of JUCM and you'll be off to a good start.

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EDITOR-IN-CHIEF

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editor@jucm.com

EXECUTIVE EDITOR

Harris Fleming
hfleming@jucm.com

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EDITOR, PEDIATRICS

David J. Mathison, MD, MBA

CONTRIBUTING EDITOR

Monte Sandler

SENIOR ART DIRECTOR

Tom DePrenda
tdeprenda@jucm.com

CLINICAL CONTENT MANAGER

Yijung Russell, MD



185 State Route 17, Mahwah, NJ 07430

PUBLISHER AND ADVERTISING SALES

Stuart Williams
swilliams@jucm.com • (201) 529-4004

CLASSIFIED AND RECRUITMENT ADVERTISING

Carissa Riggs
carissa.riggs@communitybrands.com • (727) 497-6565, ext. 3394

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Whether you chalk it up to vanity, overeagerness for a competitive advantage, or an unquenchable thirst to have the “perfect” body, some patients seemingly will stop at nothing to get their hands on unapproved performance-enhancing drugs. In fact, the popularity of selective androgen receptor modulators has only grown over the years. Given that use of these drugs is illegal, some patients who present with symptoms such as dizziness, lightheadedness, and pain might be reticent to acknowledge using them—which leaves you without a complete picture on which to base your diagnosis.

This dangerous conundrum is addressed thoroughly in *Building the Body Up Just to Break the Body Down: A Look Into Black Market Substance Use Among Young Athletes and Bodybuilders* (page 11), by **Rachel M. Poff, PAC** and **Christina Gardner, DHSc, MBA, PA-C**. In this article, the authors use an actual case to illustrate the importance of recognizing the telltale signs that patients are using substances that are undetectable in basic urine specimens.

Ms. Poff practices in the Department of Family and Community Medicine at the Carilion Clinic, where Dr. Gardner directs the Advanced ACP Fellowship in Urgent Care and Rural Health; she’s also affiliated with the Radford University PA program.

Vigilance and clinical acumen are also necessary when patients present with thyroid storm. While it’s not an obscure event, the symptoms can mimic any number of other acute conditions—some of which are life-threatening. So, while those need to be ruled out, overlooking a diagnosis that could precede self-harm isn’t advisable. These nuances are illustrated perfectly in this month’s case report. *An Atypical Presentation of Thyroid Storm: A Stark Yet Potentially Lethal Diagnosis* starts on page 17. We appreciate authors **Amrita Mahajan, BA** (University of Colorado Anschutz Medical Campus) and **Lindsey Fish, MD** (Federico F. Peña Southwest Urgent Care Clinic, Denver Health and Hospital; University of Colorado School of Medicine) giving us the opportunity to share it with you.

Similarly, there’s nothing extraordinary about a child presenting to urgent care with a rash. However, while most occurrences are of fairly benign origin, there are a number of potential complications that make IgA vasculitis, formerly known as Henoch-Schönlein purpura, concerning. In *IgA Vasculitis in Children: Beyond the Rash*, **Diana Sofia Villacis Nunez, MD; Amit Thakral, MD, MBA; and Pareen Shah, MD** (all of whom are affiliated with the Department of Pediatrics, Emory School of Medicine) walk us through the steps necessary for a thorough evaluation, classification, and management. You can read their paper on page 40.

Bronchiolitis is common among children presenting to urgent

care, too. Many need to be reevaluated, at considerable cost and inconvenience. So, **Prema D. Souza, MD; Aimey Patel, MD; Brian Lee, PhD; and Amanda Nedved, MD** considered whether there was a way to decrease the need for reevaluation. Their findings are detailed in *Do Respiratory Outpatient Clinics Decrease Bronchiolitis Reevaluation Rates? Observational Data from a Quality Improvement Project* (page 30). Drs. Souza, Patel, and Nedved are colleagues at Children’s Hospital, Kansas City, MO, and the University of Missouri Kansas City School of Medicine. Dr. Lee also works with them at Children’s Hospital, Kansas City.

Regardless of whether the patient is a child or an adult, you need to make it as easy as possible for them to find you. When they’re out running around, that likely means they’ll consult their cell phone. Traditional marketing media are of little value in that scenario. If you’re not using digital marketing techniques you’re likely to miss out on that opportunity to provide care and make a new connection. **Alan A. Ayers, MBA, MAcc** explains the essentials in *Seven Digital Marketing Tactics for Every Urgent Care Center*, starting on page 26. Mr. Ayers is president of Experity Networks.

In this month’s Revenue Cycle Management column (page 45), **Monte Sandler**, executive vice president, revenue cycle management, Experity explains the new technical corrections issued by the American Medical Association. Understanding the nuances will help ensure that you’re not missing out on revenue for the care you provide.

Finally, in *Abstracts in Urgent Care* (page 23), **Ivan Koay, MBChB, FRNZCUC, MD** distills relevant papers from across the publishing spectrum down to their most urgent care-relevant essence. This month, he looks at acetaminophen vs ibuprofen for children; several aspects of orthopedic presentations; and the latest information concerning COVID-19. Dr. Koay is a physician based in Dublin, Ireland, as well as an Examiner and Trainee Supervisor for the Royal New Zealand College of Urgent Care Education Faculty for the Urgent Care Medicine Fellowship, Royal College of Surgeons Ireland.

Call for Peer Reviewers

In every issue of *JUCM*, there are select articles on which we ask members of our peer review panel to comment. It’s one step we take in trying to ensure that all the content we publish is relevant, clearly communicated, and free of bias. We’re grateful for their contributions.

If you’d like to help *JUCM* achieve the standard we set for ourselves on our readers’ behalf, please consider volunteering to serve as a peer reviewer, too. Just send an email, including your CV, to editor@jucm.com. ■



Improved Certification Program for 2021

UCA's Certified Urgent Care (CUC) program recognizes urgent care centers that meet nationally standardized criteria and tells the public and payers that the urgent care center's scope of practice is consistent with easy access and services that allow for care of a broad spectrum of illness, injury, and disease. Urgent care centers with the CUC designation have a mark of distinction to educate their community and stakeholders, gain an edge in marketing their level of services, and eliminate confusion with other kinds of providers.



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What Next?

■ LOU ELLEN HORWITZ, MA

In search of: a good crystal ball repairperson. It's a tough time to be a soothsayer, but here's what I do know: there's a ton of experimentation happening out there in urgent care, and it's starting to look pretty interesting.

Every urgent care owner or provider I talk to is in the midst of doing something a little different. The visit chase is going down new paths, press releases about this deal or that deal (all of which seem to be uniquely structured) are filling LinkedIn feeds, and everyone is trying to figure out what's next. What I love about this group, though, is how you are not trying to figure it out in your heads—you are figuring it out in real time and space. That takes a unique combination of smarts and guts. Are urgent care people amazing or what?

We're also seeing ongoing invention in our vendor members. The rapid rollout of new tools and programs and resources has actually kept up with the rapid pivots of urgent care itself, and that's pretty impressive. So I'd like to give a shout-out to all of our vendor members and corporate support partners for their entrepreneurialism, free webinars hosted throughout COVID to help everyone stay informed, and strong support of UCA's advocacy work.

Annual Convention

Ordinarily, you and I would be having this conversation face to face at UCA's Annual *Spring* Convention (cue the dream sequence). We're not, but things are currently looking good for us to be *together* for UCA2021 in New Orleans October 9-13. We started working in March on what that gathering will be, so I wanted to share what we know so far:

1. The education will be at an advanced level. We have other ways to educate on the fundamentals (Urgent Care Bootcamp for providers and UCBX for managers) so we are going to focus the Convention on advanced content only.
2. We will take advantage of the face-to-face format more fully, with mock clinics as learning environments, shared

problem-kicking (solving?), shared experimentation results (see above) and opportunities for serendipity.

3. We are going to talk about the things that scare us...like "What next?"
4. Registering is going to be easier than ever before.
5. It's going to be serious, and it's going to be fun.

By the time you read this we'll know more, and we'll open registration soon thereafter. We're already pretty excited and hope you are, too.

Closing the Tent Flaps

It's been a year since UCA threw our doors wide open and provided pretty much everything we were doing to anyone who needed it. I hope every one of you found something of value to help you navigate through the pandemic operationally, medically, and legislatively. It was truly a massive partnership and continues to reap long-term benefits for the industry.

It was also the right thing to do, but it's time for us to close the tent flaps and for you to choose to be inside the tent or outside the tent—meaning that we are returning the majority of our resources to be for members-only. After all, membership needs to truly mean something tangible, and we want to honor your support and investment in us as members.

If you read UCAccess (and you should) you've seen that we've been adding to those resources, and will continue to do so. There are not only discounts that you can't get anywhere else on some pretty neat programs, but also free education, member-to-member listservs, samples and checklists and toolkits and references. We're also about midway in transforming our website to make it easier to find all this great stuff. It's a good time to be a UCA member.

If you aren't a member—if you've been looking from the outside in—just come on in already! We're really nice, we'll work hard to make it worth your while, we'll use your dues directly for your benefit, and I can tell you firsthand that the company can't be beat. Didn't I already mention how amazing urgent care people are? UCA members are even better, because they have committed to each other, and to making our industry the best it can be. What's not to love about that? (www.ucaoa.org) in case you didn't know. ■



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



CONTINUING MEDICAL EDUCATION

Release Date: April 1, 2021
Expiration Date: March 31, 2022

Target Audience

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

Learning Objectives

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

Accreditation Statement



This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Urgent Care Association and the Institute of Urgent Care Medicine. The Urgent Care Association is accredited by the ACCME to provide continuing medical education for physicians.

The Urgent Care Association designates this journal-based CME activity for a maximum of 3 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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- **Alan A. Ayers, MBA, MAcc**
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Building the Body Up Just to Break the Body Down: A Look Into Black Market Substance Use Among Young Athletes and Bodybuilders (page 11)

- 1. Selective androgen receptor modulators (SARMs):**
 - a. Are available over the counter
 - b. Are available by prescription
 - c. Can be administered only by licensed prescribers in a clinical setting
 - d. Are currently labeled “not for human consumption”
- 2. SARM molecules target androgen receptors on which of the following?**
 - a. Muscle and bones
 - b. Prostate
 - c. Testis
 - d. Skin
- 3. Resolution of symptoms associated with consumption or overconsumption of SARMs is aided by:**
 - a. Fluid administration
 - b. Activated charcoal
 - c. Laxatives
 - d. All of the above

An Atypical Presentation of Thyroid Storm: A Stark Yet Potentially Lethal Diagnosis (page 17)

- 1. Thyroid storm is a life-threatening complication of thyrotoxicosis. In the United States, what percent of patients with thyrotoxicosis are diagnosed with thyroid storm?**
 - a. 48%
 - b. 29%
 - c. 16%
 - d. 7%
- 2. While the actual cause of thyroid storm is unclear, such events have been found to be triggered or preceded by:**
 - a. Diabetic ketoacidosis
 - b. Hypoglycemia
 - c. Hyperglycemia
 - d. All of the above

3. Clinical features of thyroid storm can be seen as an exaggeration of classic hyperthyroid symptoms, and may include:

- a. Tachycardia exceeding 140 beats per minute
- b. Congestive heart failure
- c. Hyperpyrexia (104°-106°F)
- d. Altered mental status
- e. All of the above

Seven Digital Marketing Tactics for Every Urgent Care Center (page 26)

1. Which of the following has been found to be a good vehicle for distributing content to prospective patients?

- a. Your website
- b. YouTube
- c. Instagram
- d. Facebook
- e. All of the above

2. Recommended ways to reach prospective patients at no cost include all but which of the following?

- a. Regular social media posts
- b. Positive customer reviews
- c. Blog posts
- d. Cold calling

3. The Rule of 7 refers to:

- a. The concept that people generally need to see a company’s message seven times before they are willing to make a purchase
- b. The number of positive experiences a patient must have before forming a commitment to a healthcare provider or practice
- c. How many personal recommendations a patient needs before deciding to visit an urgent care center for the first time
- d. How long (in minutes) patients expect to wait at an urgent care center before seeing a provider

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Building the Body Up Just to Break the Body Down: A Look Into Black Market Substance Use Among Young Athletes and Bodybuilders

Urgent message: Many performance-enhancing medications not currently approved by the FDA remain undetectable in basic urine specimens collected in the urgent care setting. If there is suspicion of any form of illicit substance use, the inquiry of specific supplements/agents is key, as side effect profiles are often vast and wide.

RACHAEL M. POFF, PA-C and CHRISTINA E. GARDNER, DHSC, MBA, PA-C

Introduction

Selective androgen receptor modulators (SARMs) constitute a class of medication that has become increasingly popular over the past decade. Their popularity likely stems from the nonsteroidal component the medications possess; SARMs have benefits on both muscle and bone tissues without the negative side effects of a traditional anabolic steroid. SARM molecules are selective in that they target androgen receptors on muscle and bones, but do not influence receptors on androgen-dependent tissues such as prostate, testis, and skin.¹

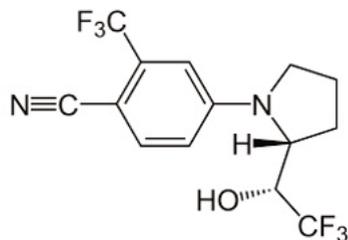
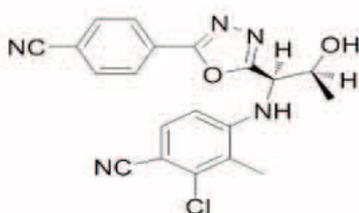
However, these medications have yet to be approved by the Food and Drug Administration (FDA) and are currently labeled “not for human consumption.” In addition, the World Anti-Doping Agency (WADA) further prohibits the usage of SARM agents as they are often labeled “body image-enhancing drugs.”² Both Ligandrol (LGD 4033) and RAD-140 are examples of two specific SARMs that are listed as prohibited substances on the 2020 edition of the United States Anti-Doping Agency (USADA) as well as the WADA list of banned agents.

A 2019 Norwegian study estimated that “6%–9% of all anti-doping rule violations (ADVR) internationally are caused by the use of contaminated dietary supple-



ments.”³ Unbeknownst to the layperson, they may be ingesting products that are not 100% chemically pure.

Author affiliations: Rachael M. Poff, PA-C, Department of Family and Community Medicine, Carilion Clinic. Christina E. Gardner, DHSc, MBA, PA-C, Carilion Clinic Advanced ACP Fellowship in Urgent Care and Rural Health; Radford University PA Program. The authors have no relevant financial relationships with any commercial interests.

Ligandrol (LGD 4033)⁴**RAD-140⁴**

“It is difficult to decipher which agent or agents were the culprit, or if this patient's symptoms were the result of concomitant usage. SARM agents are often marketed as a single, isolated, and pure substance; recent studies suggest this may not necessarily be the case.”

Case Presentation

Mr. L is a 27-year-old male who presents to urgent care with dizziness, lightheadedness, and pain over his left antecubital fossa for the past 2 hours. He describes the pain as “pinpoint and sharp.” There is no change when he moves the arm. The patient states he does not feel like his normal self and “it is as if I was high, as if I have done drugs or drank, but I have not taken anything today.” He admits drinking an energy drink prior to symptom onset. He denies any personal medical history of hypertension, diabetes mellitus, hyperlipidemia, hepatitis, hypertrophic obstructive cardiomyopathy, or other cardiovascular events.

He reports current usage of Blue Dragon, a selective androgen receptor modulator (SARM) containing LGD 4033 and RAD-140. He has been using 1 dropper full (equivalent of 1 mL per patient) of both LGD 4033 and RAD-140 approximately 45 minutes prior to gym work-

outs once per day for the past month.

The patient also reports concomitant usage of cocaine and alcohol. The patient's alcohol usage varies depending on the day, but he states that he drinks “at least two beers a night” with intermittent liquor consumption. His most recent alcohol consumption was the previous night. Illicit drug use entails intermittent cocaine ingestion with last intake 3 weeks ago and episodic ingestion of marijuana. He denies marijuana usage in the past 2 days and denies a history or current use of intravenous drugs.

Observation and Findings

- Vital signs: BP 178/96, HR 73, RR 18, temp 97.9° F, SpO₂ 100%
- General: On exam, he appears to be anxious
- Eyes: Pupils are approximately 4 mm in size and equal with room lighting. Minimal pupil constriction appreciated with direct light
- RRR without obvious murmur
- Lungs are CTAB with normal pulmonary effort
- Musculoskeletal: FROM without TTP over left antecubital fossa
- Neuro: Normal sensation and 5/5 strength of bilateral upper extremities
- Extremities: 2+ radial pulses noted bilaterally
- Skin: Two small, red pinpoint areas over the left AC fossa without any obvious associated track marks, surrounding erythema, or warmth
- Neuro: No focal neurologic deficits. CN 3-12 are grossly intact. GCS of 15. No facial asymmetry or dysarthria. No motor or sensory deficits noted. Coordination is intact. No pronator drift. Romberg sign is negative

Differential Diagnoses/Decisional-Making

- Atypical chest pain (given concomitant usage of substances)
- Cocaine-induced MI (recent cocaine ingestion)
- Adverse drug reaction from SARMs (ingestion of daily SARMs for 1 month)
- Anxiety attack (patient appeared anxious)
- Adverse drug reaction from energy drink consumption (ingested energy drink prior to onset of symptoms)
- Acute coronary syndrome (given new onset of dizziness)

Of these, atypical chest pain, adverse drug reaction from SARMs, and cocaine-induced MI were of higher concern when compared with the other diagnoses. These diagnoses were considered to be more likely due to patient's age, substance ingestion, rapid onset of

symptoms, no prior history of said symptoms, and physical exam findings.

Course

Poison control was contacted for guidance of known associated adverse side effects of SARMs. The representative noted limited information on the exact SARM brand or individual agents, but reported that similar SARM products, in an event of overusage or occasional usage, have been associated with hepatic, testicular, and cardiac side effects.

Given his symptoms, substance ingestion, and poison control's recommendations, the patient was sent to the emergency department for further evaluation and management.

Diagnostic Studies/Tests/Labs

An electrocardiogram performed in the urgent care clinic demonstrated a sinus rhythm at a rate of 71 with normal intervals and normal axis in the absence of any acute ST segment changes or T wave inversions.

The patient was transferred to the ED where a CBC, CMP, and serial troponins were all essentially normal (Table 1).

Discussion

Given this patient's ingestion of several different products, it is difficult to decipher which agent or agents were the culprit or if his symptoms were the result of concomitant usage. In addition, SARM agents are often marketed as a single, isolated, and pure substance. However, recent studies have emerged suggesting that this may not necessarily be the case.

Van Wagoner R, et al explored the purity of these agents in their marketed form in a 2017 article, reporting that out of "44 products, only 23 (52%) contained one or more SARM, 17 products (39%) contained another unapproved drug (including growth hormone secretagogue), no active SARM compound was detected in 4 (9%), substances not listed on the label were contained in 11 (25%), and only 18 of the 44 products (41%) had the amount of active compound in the product that matched that listed on the label." Further, 59% of the products that were marketed for sale differed substantially from that found by laboratory analysis.⁴

If the two SARM agents that the patient ingested were not chemically pure, this serves as another avenue of investigation into what caused his symptoms. The fact that these agents are for sale (through the black market) does not mean they are safe for ingestion. Per-

Laboratory Results	Patient's Value	Reference Range
Troponin	<0.30 ng/mL	<0.30 ng/mL
Sodium	141 mmol/L	135-145 mmol/L
Potassium	3.9 mmol/L	3.5-5.3 mmol/L
Chloride	102 mmol/L	95-107 mmol/L
CO ₂	23 mmol/L	21-31 mmol/L
Urea nitrogen	15 mg/dL	6-20 mg/dL
Creatinine	1.28 mg/dL	0.5-1.4 mg/dL
Glucose	93 mg/dL	70-99 mg/dL
Total protein	7.1 g/dL	6.0-8.3 g/dL
Albumin	4.4 g/dL	3.2-5.5 g/dL
Total bilirubin	0.4 mg/dL	< 1.3mg/dL
Calcium	8.9 mg/dL	8.5-10.7 mg/dL
Alkaline phosphatase	63 IU/L	42-121 IU/L
AST	49 IU/L	10-42 IU/L
ALT	36 IU/L	10-60 IU/L
Globulin	2.7 g/dL	1.7-3.9 g/dL
Albumin/globulin	1.6 ratio	0.7-2.3 ratio
Anion gap	16 mmol/L	8-18 mmol/L
Osmolality calc	293 mos/kg	278-305 mos/kg
Bun/creatinine	11.7	7-20
GFR, Estimated	77 mL/min	>60 mL/min
WBC	9.3 K/ul	4.0-10.5 K/ul
RBC	5.13 M/ul	4.5-5.3 M/ul
Hemoglobin	15.9 g/dL	13.0-16.0 g/dL
Hematocrit	47.3%	37%-49 %
Platelet count	301 K/ul	130-400 K/ul

"As medicine continues to evolve, pharmaceutical agents of all kinds continue to diversify, and the black market remains a viable avenue for obtaining substances, providers would be well advised to develop a baseline level of clinical suspicion."

haps conversations regarding the above article's findings should be warranted for patients in whom illicit substance use is suspected. Thus, even if SARMs themselves

From the Food and Drug Administration's Warning About Using SARMs in Body-Building Products

"We are extremely concerned about unscrupulous companies marketing body-building products with potentially dangerous ingredients. Body-building products that contain selective androgen receptor modulators, or SARMs, have not been approved by the FDA and are associated with serious safety concerns, including potential to increase the risk of heart attack or stroke and life threatening reactions like liver damage," said. "We will continue to take action against companies marketing these products to protect the public health."

– Donald D. Ashley, JD, director of the Office of Compliance in the FDA's Center for Drug Evaluation and Research, October 31, 2017. To read the entire content of FDA In Brief: FDA Warns Against Using SARMs in Body-Building Products, visit <https://www.fda.gov/news-events/fda-brief/fda-brief-fda-warns-against-using-sarms-body-building-products>

are eventually approved by the FDA, providers still need to consider what additional agents are mixed in with the SARMs.

As medicine continues to evolve, pharmaceutical agents of all kinds continue to diversify, and the black market remains a viable avenue for obtaining substances, providers would be well advised to develop a baseline level of clinical suspicion.

This heightened level of suspicion should entail expanding differential diagnoses as a whole, but particularly for patients who exhibit a wide range of nonspecific symptoms. SARMs are the "new kid on the block" when it comes to "doping agents." As such, identifying these products using currently available detection methods is difficult if not near impossible.

Rather than relying on urinalysis and other laboratory measures, the attention should be focused on finetuning clinical judgement and physical exam skill sets, as these may be the only way to detect the use of a doping agent in the urgent care setting.

Another key aspect to detection of these agents revolves around targeted, non-open-ended specific questions during the history-taking portion of the office visit.

The patient in the case described in this article did not consider LGD 4033 nor RAD-140 to be "illicit" substances because they did not contain any anabolic steroids. Broadly inquiring about the usage of "illegal substances" leaves the door open for patients to misunderstand the question. Patients may decline to divulge use of SARMs not in an effort to deceive the provider, but because they may not view them as unlawful substances. Fortunately, in this case scenario, the patient

"While the investigation into SARMs is ongoing and the degree to which they affect the human body is researched further, one common principle is that these molecules are not safe for human consumption. Patients need to be educated on the potential for harm they possess and the need for observation of subsequent signs and symptoms."

was forthcoming with his SARM usage; however, that may not always be the case.

Given the relatively recent emergence of these agents, there is no one specific antidote or pharmaceutical treatment, per se. Instead, the mainstay of treatment remains symptomatic management, with the cornerstone being fluid administration. As previously mentioned, these molecules are thought to negatively affect hepatic and cardiac functioning; therefore, baseline and routine laboratory measures should be obtained for monitoring purposes.

Establishment with a primary care provider to maintain close follow-up is a key aspect in the well-being of these patients.

Case Resolution

The patient was diagnosed in the ED with atypical chest pain. He was given PO fluids with resolution of his initial symptoms, and was discharged home in stable condition. Follow-up with his PCP was recommended, but not obtained.

Conclusion

While the investigation into SARMs is ongoing and the degree to which they affect the human body is being researched further, one common principle is that these molecules are not safe for human consumption. As such, patients need to be educated on the potential for harm these agents possess and the need for observation of subsequent signs and symptoms. ■

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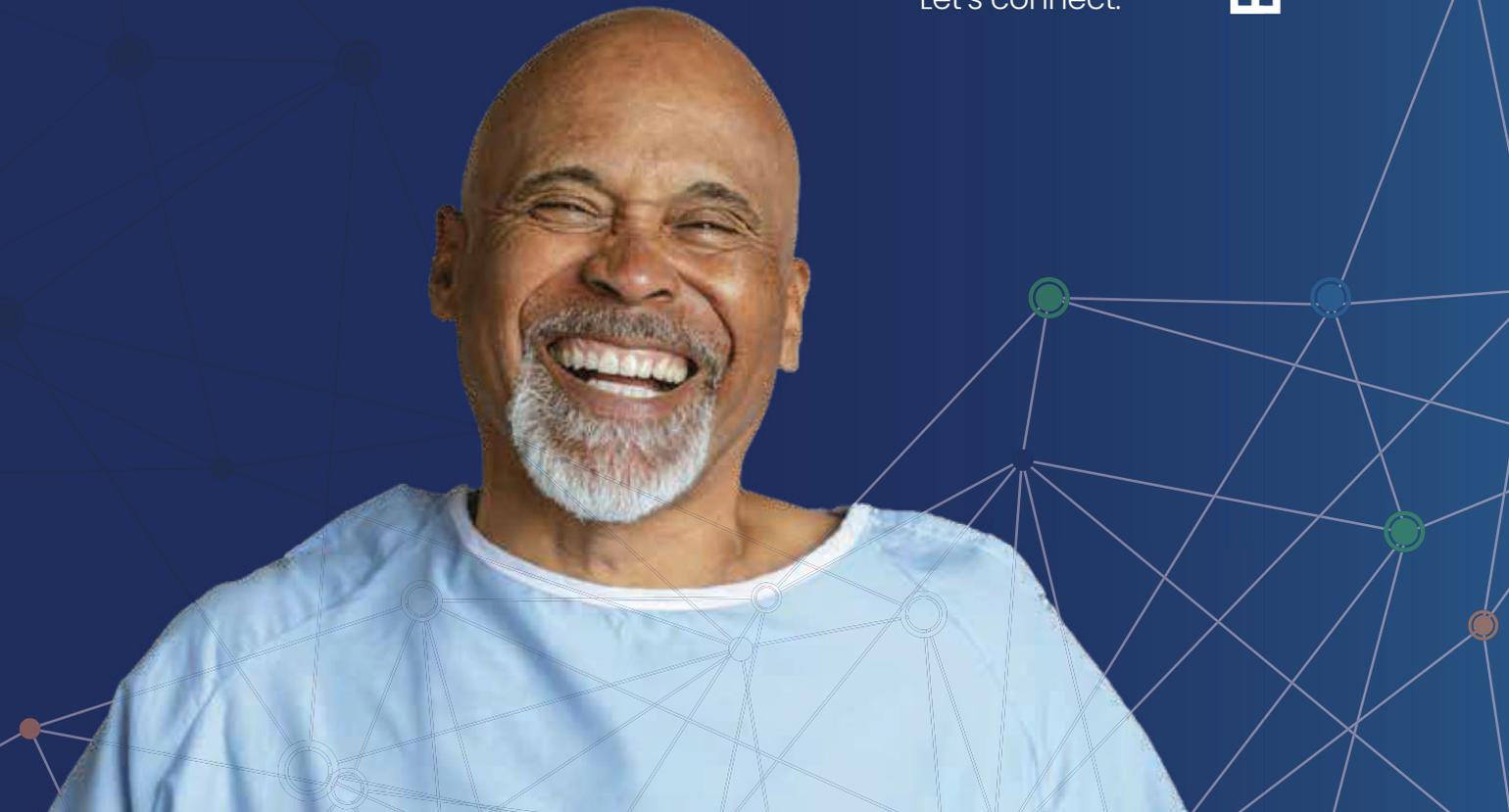
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An Atypical Presentation of Thyroid Storm: A Stark Yet Potentially Lethal Diagnosis

Urgent message: Unmanaged hyperthyroidism can cause any number of acute conditions that would drive a patient to visit an urgent care center. Further, thyroid storm can mimic several life-threatening events. Early recognition of the correct diagnosis is essential to raising the likelihood of a positive outcome—and protecting the patient from self-harm.

AMRITA MAHAJAN, BA and LINDSEY FISH, MD

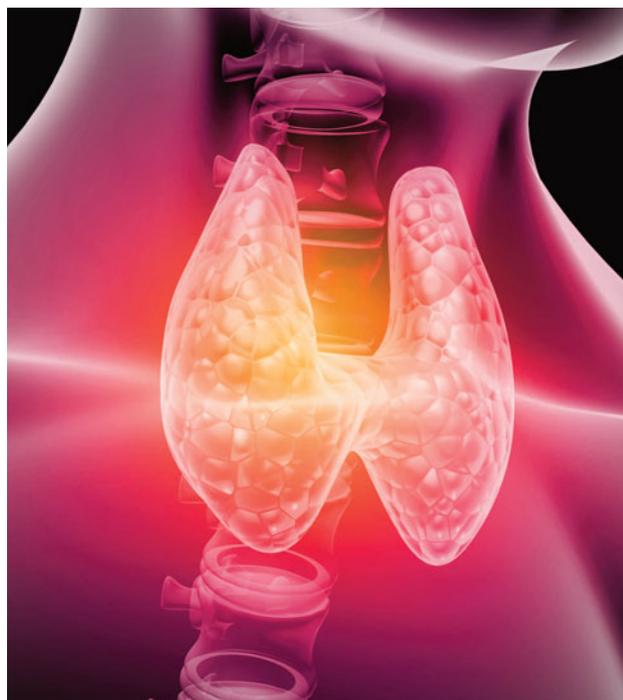
Introduction

Thyroid storm is a rare, life-threatening complication of thyrotoxicosis, a condition caused by excess thyroid hormone. It is an endocrine emergency characterized by an acute exacerbation of hyperthyroidism.¹ In the United States, about 16% of patients in the inpatient setting with thyrotoxicosis are diagnosed with thyroid storm.²

Thyroid storm can occur in patients with chronic untreated hyperthyroidism. While factors such as surgery (thyroid or non-thyroid), diabetic ketoacidosis, trauma, infection, or parturition can trigger or precipitate an event, the mechanism of *why* these factors result in thyroid storm remains unclear. Treatment includes specific therapy directed against the overactive thyroid along with supportive care in the ICU. Recognition and treatment are vital due to the sizeable rate of mortality, ranging from 10% to 30%.³

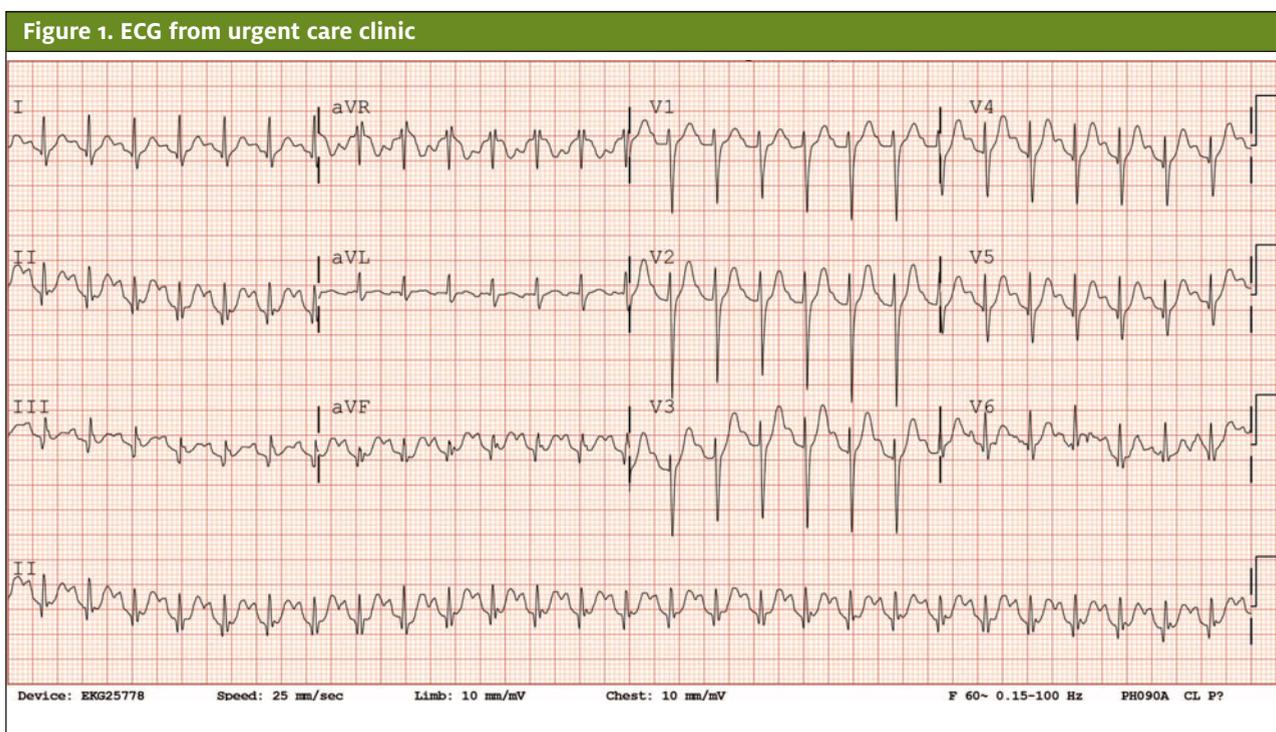
Case Presentation

A 25-year-old female with past medical history remarkable for Graves' disease presented to an urgent care clinic with a chief complaint of malaise for 4 weeks. She reported feeling poorly with symptoms of anorexia, fatigue, myalgias, and weakness during this time. She



endorsed suicidal ideation. All other reviews of symptoms were negative. She also denied any factors that alleviated or aggravated her symptoms. Other than

Author affiliations: Amrita Mahajan, BA, University of Colorado Anschutz Medical Campus. Lindsey Fish, MD, Federico F. Peña Southwest Urgent Care Clinic, Denver Health and Hospital; University of Colorado School of Medicine. The authors have no relevant financial relationships with any commercial interests.



“Clinical features of thyroid storm typically are an exaggeration of classic hyperthyroid symptoms, including tachycardia exceeding 140 beats per minute, congestive heart failure, hyperpyrexia, and altered mental status.”

Graves' disease, the patient had no other relevant past medical history and was not taking any medications. Patient was a nonsmoker, did not drink, and had no recreational drug use.

Physical Examination

Temperature 37.8°C
 BP 148/90
 HR 186
 RR 28
 SpO₂ 95% on RA

Patient was oriented to person, place, and time. HEENT exam was remarkable for proptosis and thyromegaly. On cardiovascular exam, patient was tachycardic and regular. Neuro exam was within normal limits and patient had normal mood and affect. Skin exam disclosed warm and dry skin with no diaphoresis.

Labs/Diagnostic Studies

Electrocardiogram (Figure 1) showed sinus tachycardia and prolonged QT interval (533 msec).

BMP and CBC were unremarkable, and troponin levels were within normal limits. Free T₄ was elevated at >8 ng/dL with a TSH of <0.01. Patient had a normal lactate level. Other labs to note were an elevated alkaline phosphatase (152), total bilirubin (1.5), and elevated urobilinogen on urinalysis.

Course And Treatment

Patient was transferred to ED via emergent ambulance. She was confirmed to be in thyroid storm (Burch-Wartofsky score 55), and treated with IV propranolol and methimazole in the ED which improved her heart rate and associated symptoms. Her elevated bilirubin and alkaline phosphatase were considered secondary to the thyroid storm and improved over time. The patient's suicidal ideation was evaluated and treated by psychia-

Table 1. Common Symptoms of Patients with Thyroid Storm and Associated Incidence Data	
Symptoms	Incidence ^{11,12}
Body temperature >38°C	66.7%
HR ≥ 120 bpm	76.2%
HR ≥ 130 bpm	60.8%
CNS manifestations	53.5% (Glasgow Coma Scale), 62.6% (Japan Coma Scale)
Congestive heart failure	40%
Atrial fibrillation	33.8%-39.3%
GI/hepatic manifestations	68.3%

try. Her discharge plan included management of Graves' disease and depression, and further work-up for the incidental finding of a ventricular-septal defect.

Discussion

Thyroid storm has various presentations. Clinical features typically are an exaggeration of classic hyperthyroid symptoms, including tachycardia exceeding 140 beats per minute, congestive heart failure, hyperpyrexia (104°-106°F), and altered mental status. Encephalopathy is a known neurological manifestation of hyperthyroidism that can be exacerbated during thyroid storm and is associated with poor outcomes.^{4,5} Presentation of encephalopathy may include confusion, dementia, psychosis, and suicidal ideation which may be seen in up to twenty percent of patients.⁶⁻¹⁰ A list of commonly encountered symptoms with associated incidence can be found in **Table 1**.

While it is imperative to not miss this diagnosis, a comprehensive differential must be considered. For a young individual presenting with constitutional symptoms and tachycardia, other possibilities include:

- Arrhythmia such as atrial fibrillation
- Drug use (cocaine, methamphetamines, opioid withdrawal)
- Panic disorder or attack depending on the duration of symptoms
- CNS infection
- Hypertensive encephalitis
- Heart failure
- Pheochromocytoma

Due to the broad possibilities, an urgent care provider must be vigilant about getting a thorough history and physical exam to guide the next steps in management.

Diagnosis is made based on clinical presentation and biochemical evidence of hyperthyroidism with elevation of free T3 and/or T4 and suppression of TSH. Physical

examination may show goiter, lid lag, hand tremor, and Graves' ophthalmopathy. Labs frequently demonstrate low TSH and increased free T4 +/- T3 concentrations.

Other nonspecific findings include mild hyperglycemia, hypercalcemia, abnormal LFTs, leukocytosis, or leukopenia. While there are no widely accepted criteria or clinical tools for making the diagnosis, some scoring systems have been established to assist in this. These include the Burch-Wartofsky Point Scale (BWPS) and Japanese Thyroid Association (JTA) scoring system.

The BWPS is a quantitative diagnostic tool established in 1993 used to distinguish uncomplicated thyrotoxicosis from active or impending thyroid storm.¹³ It is based on three observations—evidence of end-organ dysfunction, variability of signs and symptoms, and high risk of mortality if undiagnosed and subsequently untreated—and assigns points to symptoms such as body temperature, CNS dysfunction, tachycardia, presence of atrial fibrillation, heart failure, and GI dysfunction. A score of >45 is highly suggestive of thyroid storm, while one of 25-44 points supports the diagnosis.¹⁴

The JTA scoring system is somewhat more recent (2006) and based on similar findings with thyrotoxicosis, or elevation of free T3 and/or free T4 as a prerequisite.¹¹

“Initial treatment of thyroid storm involves a therapeutic regimen of multiple medications and supportive therapy. Medications include beta blockers, thionamides, iodine solution, glucocorticoids, and possibly bile acid sequestrants.”

In the JTA system, a combination of CNS manifestations (restlessness, delirium, psychosis, lethargy, coma), fever ≥38°C/100.4°F, HR ≥130, evidence of CHF (pulmonary edema, cardiogenic shock, or NYHA class IV), and/or GI/hepatic symptoms (nausea, emesis, diarrhea, total bilirubin ≥3 mg/dL) is required.

A patient with thyrotoxicosis with at least one CNS manifestation plus ≥ 1 other symptom *or* a combination of at least features among fever, GI/hepatic manifestations, CHF, or tachycardia is diagnosed with definite thyroid storm (TS1), while suspected thyroid storm (TS2) is defined by thyrotoxicosis plus a combination of at least two features from tachycardia, CHF, GI/hepatic manifestation, and/or fever *or* a patient with a previous history of thyroid disease and presence of goiter and exophthalmos on physical exam who meets TS1 criteria but has no thyroid function test values available.

“Long-term management of hyperthyroidism involves discontinuing most of the acute therapies (iodine, glucocorticoid, beta blocker) and titration of the thionamide to an appropriate level once thyroid function tests return to normal.”

While it has its uses, pitfalls include false positives due to its liberal criteria and potential for missed diagnoses due to atypical presentation in pediatric and elderly patient populations. These tools are not substitutes for a keen eye and sound clinical judgement, but they can be utilized as a resource to assist with diagnosis while recognizing their strengths and limitations.

Initial treatment of thyroid storm involves a therapeutic regimen of multiple medications and supportive therapy (IV fluids, cooling blankets, and glucose). Medications include beta blockers, thionamides, iodine solution, glucocorticoids, and possibly bile acid sequestrants. The intent of a beta blocker is to control symptoms secondary to increased adrenergic tone, while glucocorticoids reduce conversion of T4 to T3 and an iodine solution can block the release of thyroid hormone. Thionamides block the synthesis of new hormone and are indicated for treatment of hyperthyroidism. While they are incorporated in initial treatment, thionamides alone are unable to control thyroid storm due to their inability to act on previously formed T4 and T3 and needing at least 3 to 8 weeks to lower circulating T4 and T3.⁹

Long-term management of hyperthyroidism involves

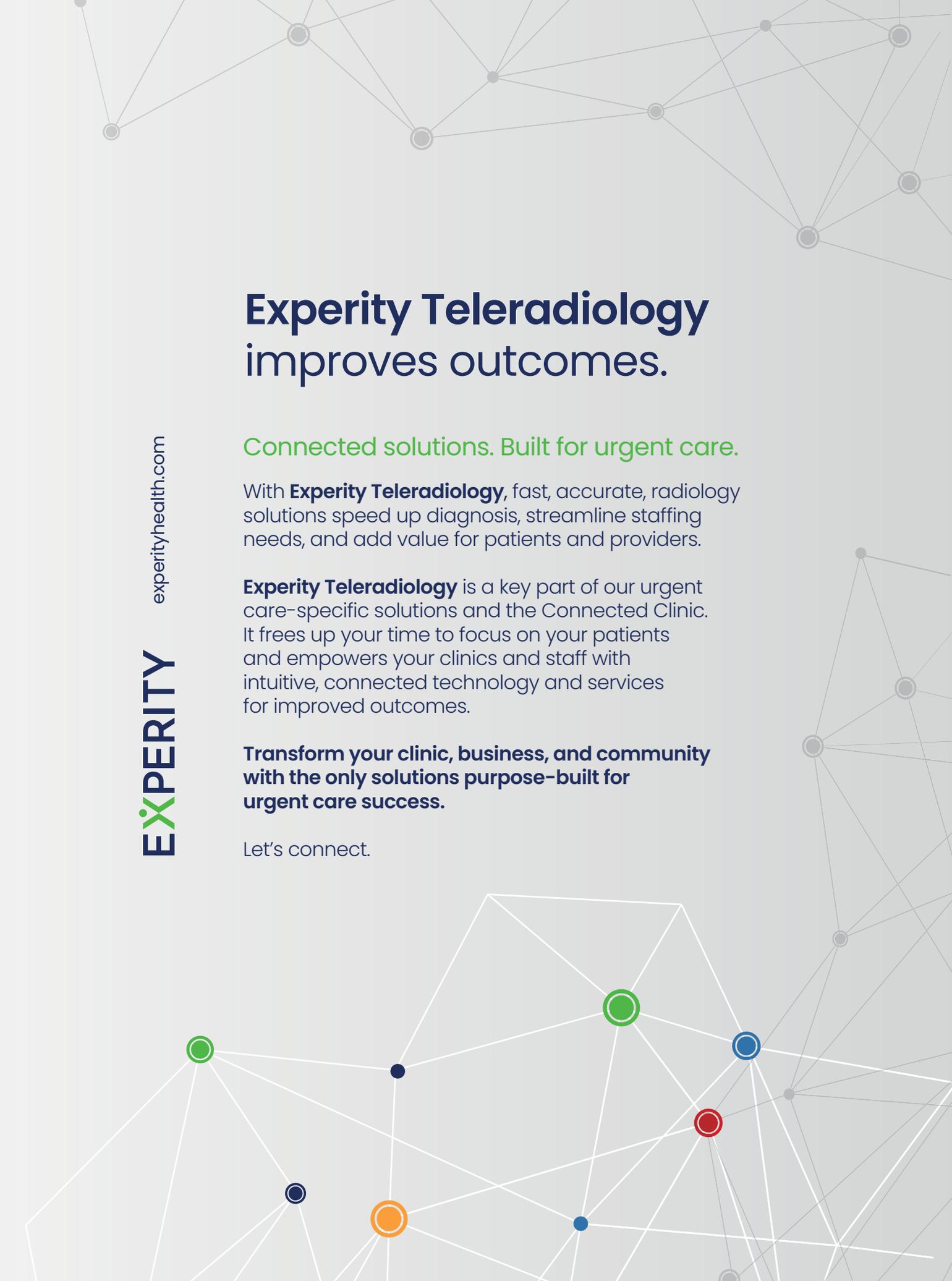
discontinuing most of the acute therapies (iodine, glucocorticoid, beta blocker) and titration of the thionamide to an appropriate level once thyroid function tests return to normal. Patients should also be monitored regularly. Should medical therapy fail to manage symptoms, options such as radioiodine therapy and surgery can be considered.

Conclusion

In summary, thyroid storm is a very rare yet life-threatening endocrine emergency seen in patients with hyperthyroidism. Thyroid storm has variable presentations but often they are exaggerations of typical hyperthyroidism features, such as tachycardia, hyperpyrexia, weight loss, and altered mental status with possible physical exam findings of goiter, lid lag, hand tremor, and Graves' ophthalmopathy. Diagnosis is primarily clinical and can be further supported by thyroid function tests. Due to its considerable mortality rate (10%-30%), immediate identification and treatment of thyroid storm are crucial. Initial treatment involves a beta blocker, glucocorticoids, and a thionamide (the latter carrying over to long-term management), with supportive therapy such as IV fluids and cooling blankets. Upon improvement of clinical symptoms and normalization of thyroid function tests, long-term therapy and routine monitoring are indicated. ■

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ABSTRACTS IN URGENT CARE

- Acetaminophen vs Ibuprofen in Children
- Optimizing Podcasts for Learning
- Dosing Ketorolac IV in Renal Colic
- Torus Distal Radius Fractures
- Avulsion Fractures of the Fifth Metatarsal Base
- COVID-19 and ECGs
- Long-Term Sequelae of COVID-19
- COVID-19, Zinc, and Vitamin C

■ IVAN KOAY, MBChB, FRNZCUC, MD

Use of Acetaminophen and Ibuprofen for Fever and Pain in Young Children

Take-home point: Acetaminophen and ibuprofen are both safe for short-term treatment of pain and fever in children under 2 years of age. Ibuprofen produces more rapid pain and fever relief than acetaminophen.

Citation: Tan E, Braithwaite I, McKinlay C, et al. Comparison of acetaminophen (paracetamol) with ibuprofen for treatment of fever or pain in children younger than 2 years: a systematic review and meta-analysis. *JAMA Netw Open.* 2020;3(10):e2022398.

Relevance: Urgent care providers commonly are faced with treating pain and fever in infants and toddlers. Prior reviews of this topic have focused on older children.

Study summary: This was a systematic review of 19 studies available prior to March 2019. The authors found ibuprofen more effective than acetaminophen in ability to reduce fever and treat pain from 4 to 24 hours after administration. The superiority of ibuprofen over acetaminophen for both pain and fever treatment did not persist beyond 24 hours.

There were low rates of adverse events reported in all studies, with most studies showing no adverse outcomes within 28 days of reporting. The authors concluded that there remains insufficient evidence to justify use of ibuprofen in infants <6 months.

Limitation: Most studies included were low- to moderate-quality evidence. ■

Retention of Knowledge from Listening to Podcasts

Take-home point: Embedded questions within podcasts help listeners retain information.

Citation: Weinstock M, Pallaci M, Alluisio A, et al. Effect of interpolated questions on podcast knowledge acquisition and retention: a double-blind, multicenter, randomized controlled trial. *Ann Emerg Med.* 2020;76(3):353-361.

Relevance: The ability to understand how we can best retain material from podcasts will enable a more robust educational experience.

Study summary: This was a randomized, double-blind, multicenter study evaluating the knowledge acquisition and retention of emergency medicine (EM) residents listening to podcasts in three residency programs in Ohio. The authors found that participants listening to podcasts with questions interpolated within the material retained the material better than those who listened to podcasts without such questions. This knowledge retention persisted in the subsequent 2–3 weeks after listening to the podcast. Retention was strongest for information emphasized by the interpolated questions, but not the other material covered in the podcast.

Limitation: The study has not investigated whether the retained knowledge would be transferrable to clinical practice in participants. ■

Intravenous Ketorolac Dosing in Renal Colic

Take-home point: 10 mg of intravenous ketorolac seems



Ivan Koay, MBChB, FRNZCUC, MD is an urgent care physician based in Dublin, Ireland, as well as an Examiner and Trainee Supervisor for the Royal New Zealand College of Urgent Care Education Faculty for the Urgent Care Medicine Fellowship, Royal College of Surgeons Ireland.

equally efficacious when compared with 20 mg and 30 mg for patients with renal colic.

Citation: Eidinejad L, Bahreini M, Ahmadi A, et al. Comparison of intravenous ketorolac at three doses for treating renal colic in the emergency department: a non-inferiority randomized controlled trial. *Acad Emerg Med*. December 28, 2020. [Epub ahead of print]

Relevance: Ketorolac, the most widely used NSAID analgesic, has multiple serious known adverse effects. Therefore, a better understanding of the minimum effective dose is important for patient safety.

Study summary: This was a prospective, randomized noninferiority trial comparing the IV administration of ketorolac at doses of 10 mg, 20 mg, and 30 mg for the treatment of pain associated with renal colic in 165 patients at three EDs in Iran. The authors assessed for change in pain at 30 minutes post administration of ketorolac. There was no statistical difference in the improvement in pain or duration of pain relief. The most common side effect was nausea and vomiting. This occurred, somewhat surprisingly, with equal frequency across the groups. Headache was the next most common acute adverse reaction and occurred most frequently at doses of 30 mg.

Limitation: The recruitment of patients was done based on the availability of the investigators, potentially introducing selection bias. The study was conducted in Iran, which may affect generalizability. ■

Treatment of Torus Distal Radius Fractures

Take-home point: Torus fractures of the distal radius can be treated safely with removable splints.

Citation: Perry D, Gibson P, Roland D, et al. What level of immobilisation is necessary for treatment of Torus (buckle) fractures of the distal radius in children? *BMJ*. 2021;372:m4862.

Relevance: Torus fractures are common in children. Full immobilization, previously the standard of care, carries with it risk of discomfort and potentially unnecessary activity restriction.

Study summary: This is a systematic review evaluating present evidence and uncertainties in the treatment of Torus fractures of the distal radius in children. Presently recognized methods for treating Torus fractures described in the literature include casting, rigid splint, bandaging, and no immobilization. There is controversy as to which is the superior method of treatment, with no present consensus. Comparison of treatment methods in the available publications showed no difference in pain,

function, or adverse events on follow-up. There is also no consensus as to whether any follow-up is required for these injuries. The authors suggest local groups collaborate to form protocols for managing these injuries. They also caution that it is important that Torus fractures be appropriately distinguished from other types of fractures. Currently, the NICE guidelines are most widely used; they advocate for removable splints and immediate discharge.

Limitation: The authors note that the quality of data available is poor and that there is a lack of blinding in the studies reviewed. ■

Treatment of Avulsion Fractures of the Fifth Metatarsal Base

Take-home point: A hard-soled shoe appears to be sufficient for treatment of avulsion fractures of the fifth metatarsal base.

Citation: Choi RC, Kim BS, Kim YM, et al. Hard-soled shoe versus short leg cast for a fifth metatarsal base avulsion fracture—a multicenter, noninferiority, randomized controlled trial. *J Bone Joint Surg Am*. 2021;103(1):23-29.

Relevance: The ability to treat avulsion fractures of the fifth metatarsal base with less restrictive strategies compared with full immobilization reduces the risk for complications such as ankle joint stiffness and DVT.

Study summary: This was a prospective, randomized controlled, multicenter noninferiority study that included patients from six university hospitals in South Korea. The 96 patients in this study were allocated randomly to a hard-soled shoe or short leg cast group. The hard-soled shoe group was permitted to remove the shoe at night or to wash their feet. Both groups were allowed to weight bear as tolerated and to use crutches. The authors found that the hard-soled shoe treatment was noninferior to the short leg cast. Patients in the hard-soled shoe group also had a significantly shorter time to return to preinjury activities with equal patient satisfaction in both groups. There were three cases of non-union among all subjects: one in the hard-soled shoe group and two in the short leg cast group

Limitation: Patient selection in the study was affected by the policy of informing patients that short leg casting was standard treatment, which could lead to selection bias. Critically, use of the hard-soled shoe in this study was reserved for fifth metatarsal avulsion fractures; more distal fractures of the fifth metatarsal were not evaluated. ■

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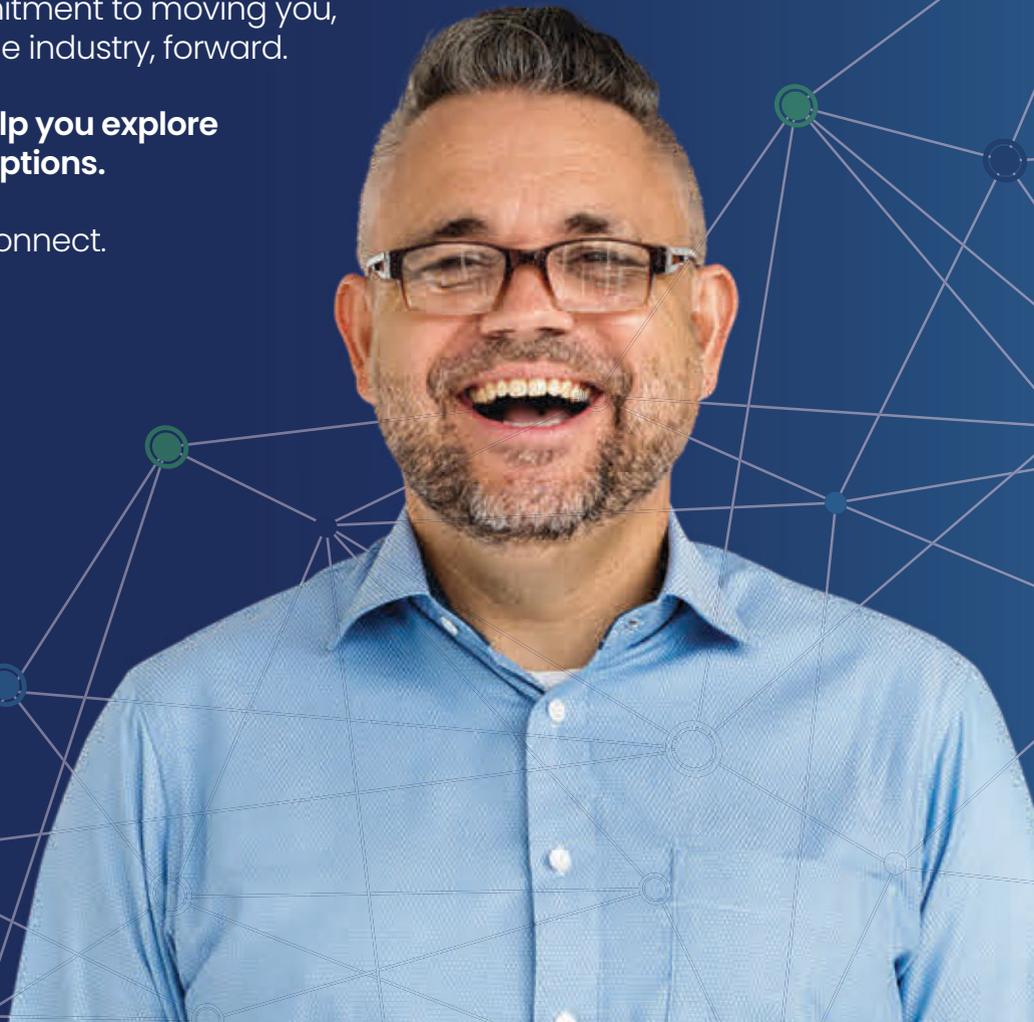
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COVID-19 Abstracts

COVID-19 ECG Rhythms

Take-home point: Sinus tachycardia is the most common ECG abnormality in patients with COVID-19. Presence of RV strain pattern should raise concern for pulmonary embolism (PE).

Citation: Long B, Brady WJ, Bridwell R, et al. Electrocardiographic manifestations of COVID-19. *Am J Emerg Med.* 2021; 41:96-103.

Study summary: This was a literature review of 80 studies addressing the ECG findings associated with COVID-19. Sinus tachycardia was the most common rhythm encountered in critically ill patients, followed by atrial fibrillation. Both were independent predictors of illness severity, myocardial injury, and poor outcomes. Ventricular tachycardia (VT) and ventricular fibrillation (VF), which is a known complication of myocarditis, occurred in 1% to 6% of patients. These dysrhythmias may be precipitated due to a number of factors, including use of medications that affect the QT interval, electrolyte abnormalities, and myocardial inflammation. Patients with elevated troponin were noted to have higher incidence of VT than those without. Bradycardias and atrioventricular (AV) blocks were less common in patients with COVID-19. PE was a common finding in COVID-19 patients when right ventricular heart strain pattern was.

Limitation: This review article included only studies in English and studies published early in the course of the pandemic. ■

How Long Is 'Long-Term' for COVID-19 Sequelae in Adults?

Take-home point: Thirty percent of patients continue to report persistent symptoms at 9 months after being diagnosed with COVID-19. Older patients were more likely to have persistent symptoms.

Citation: Logue J, Franko N, McCulloch D, et al. Sequelae in adults at 6 months after COVID-19 infection. *JAMA Netw Open.* 2021;4(2):e210830.

Relevance: Understanding the long-term sequelae of COVID-19 infection is vital for counseling patients and defining the broader public health consequences of the pandemic.

Study summary: This was a longitudinal prospective cohort of 177 adults with laboratory-confirmed COVID-19 infection enrolled at the University of Washington. Participants with COVID-19 were contacted to complete a single follow-up questionnaire between 3 and 9 months after illness onset. Among the respondents at the time of the initial diagnosis, 9% required

hospitalization, 6% were asymptomatic, and 85% had mild illness treated in an outpatient setting.

The authors found that persistent symptoms were reported in 26% of patients aged 18-39 years, 30% aged 40-64 years, and 43% aged 65 years and older. The most common persistent symptoms noted by participants were fatigue (13%), loss of sense of smell or taste (13%), and brain fog (2.3%).

Limitation: The study was single-centered and had a small number of participants with a relatively large proportion lost to follow up. ■

Use of Zinc and Vitamin C in COVID-19 Infection

Take-home point: High-dose zinc, vitamin C, or a combination of both does not reduce the length or severity of COVID-19 infection.

Citation: Thomas S, Patel D, Bittle B, et al. Effect of high-dose zinc and ascorbic acid supplementation vs usual care on symptom length and reduction among ambulatory patients with SARS-CoV-2 infection—The COVID A to Z Randomized Clinical Trial. *JAMA Netw Open.* 2021;4(2): e210369.

Relevance: Patients commonly take or inquire about supplements which may alter their risk for COVID-19. Zinc and vitamin C are among the most common supplements patients take in an effort to affect immune function.

Study summary: This was a randomized open-labeled trial within a single healthcare system in Ohio and Florida across multiple hospital sites. Patients were randomized equally to one of four treatment strategies over a period of 10 days after a positive COVID-19 viral test. The four treatment strategies were: 1) 8,000 mg of vitamin C (to be divided into two to three doses per day with meals); 2) 50 mg of zinc gluconate at bedtime; 3) both therapies; and 4) usual care (ie, no supplements). The intended recruitment target was 520 patients; however, the trial was terminated early after recruitment of 214 (40%) of the target due to futility criteria met at the interim analysis point. The authors found that there was no significant difference among groups in the primary outcome, which was number of days required to reach a 50% reduction in symptoms. There was also no significant difference in the number of days to reach resolution of symptoms, and no difference in hospitalization and death rates in all the groups.

Limitation: This was a relatively small, single-center study. Optimal dosing of the supplements has not been established and the doses studied may not reflect a dose required for clinical effect. ■



Seven Digital Marketing Tactics for Every Urgent Care Center

Urgent message: Urgent care operators are spending an increasing amount of their marketing budget on seven digital tactics.

ALAN A. AYERS, MBA, MACC

Fortunately for those working in healthcare, there will never be a shortage of patients. People will always come down with illnesses, and minor injuries won't go away anytime soon. That being said, it can still be difficult to get people in the door of your specific urgent care center.

Although it often gets neglected, proper marketing is one of the most important pieces of running an urgent care—aside from providing high-quality clinical services. In today's world, digital marketing is typically the best route to pursue. It allows your company to connect with potential customers across platforms they use every day and on devices they are familiar with.

Of course, not all digital marketing is built equally. The seven strategies outlined in this article are ones that should be adopted by every urgent care center. They are validated by research and years of industry experience and, if done correctly, will help drive customers to your business.

A Robust Website

Your website is most likely the way potential customers will learn about your urgent care center and its services. Although people may arrive at your website in a variety of ways, it serves as one central location for you to put your best foot forward.

Your website lets you tell customers who you are, what you do, and even lets you start offering convenient services before they walk through the door.

From a marketing standpoint, your website is key to getting your brand in front of potential customers. This is accomplished by ensuring that your site is optimized for search engines so it can boost your business in the rankings and increase your visibility.



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But, what does it mean to optimize your website for search engines like Google, Yahoo, and Bing?

While search engine optimization (SEO) can be an entire topic on its own, the basics are rather simple. You should ensure that your website contains rich keywords that reflect what customers are searching for.

As an example, including terms for common conditions seen in your clinic can make your website appear when people are searching for symptoms of those conditions.

Meanwhile, your site should look great on mobile devices and contain information that can be picked up by voice searches.

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

With all this in mind, don't forget that your website also needs to be attractive to people—not just search engines. It should be clean, modern, and professional. This gives potential customers a good first impression.

To accomplish this, ensure that your website loads quickly on all devices, is easy to navigate, and that all aspects of it are working. Nothing drives people away faster than a site that takes too long to load or one that is hard to navigate.

Finally, your website needs to be multifunctional. Visitors should be able to easily locate information regarding your services, locations, and hours. This helps reduce the number of phone calls employees must take and frees up their time to do more important tasks.

You can make your website more helpful by including tools like online registration, medical records retrieval, test result viewing, and electronic bill payments.

Create Interesting Content

When it comes to reaching people with your message, you need to ensure that potential customers are getting something out of it. No one is browsing the internet looking for a blog post from a neighborhood urgent care chain.

That being said, many people are willing to click on that blog post if they find it interesting or if they believe it will help them in some way. When you're creating marketing content for your urgent care business, ensure that it is interesting and offers value for the consumer.

Posting keyword-rich blog content is one way to accomplish this. The SEO-focused keywords help get your content in front of people by catering to search engines, and engaging, beneficial topics get them to click. When determining the topics, be aware of things that are trending in recent searches or local news. This increases the likelihood that people will find your content and subsequently share it.

Who Is Your Target Audience?

You'll also want to keep your target audience in mind. Although anyone can benefit from urgent care services, certain trends do occur in the industry. For instance, many urgent care companies design their marketing content around the healthcare decision-maker of a family. In many cases, this is a woman between the ages of 24 and 55. Identifying your ideal target audience helps you create content that is more useful and interesting to potential consumers.

Once you identify the target audience and have created engaging, helpful content, it's time to share it. This

should be done through multiple outlets and with several types of media. Aim to distribute your marketing content in blog format on your website, as videos on YouTube, in photo form on Instagram, and as short text posts on Facebook. Using multiple outlets gets your content in front of as many people as possible.

“The Rule of 7 is a term that's thrown around frequently in the advertising world. It means that people generally need to see a company's message seven times before they are willing to make a purchase.”

Meanwhile, urgent care centers should work on developing relationships with local news outlets, including TV stations, radio stations, and newspapers. Be sure to share news and updates with these agencies regularly. Getting your executives and employees quoted in their stories is even better. Then, you can repost that content across your channels. This builds trust in the community and helps spread awareness about your company.

Online Reputation Management

For any business, but especially urgent care centers, word of mouth goes a long way. Online reviews can be tremendous for your business. Companies that have more positive reviews typically find themselves positioned higher in search engine rankings than their competitors.

Urgent care companies should actively encourage patients to leave reviews on platforms like Google, Yelp, and Facebook. While Google is certainly the most important review platform, the others shouldn't be overlooked.

For instance, Yelp is mainly used for the restaurant industry but helps attract traffic when people are browsing using a search engine like Bing instead of Google.

Getting customers to leave reviews can be done in a few ways. Reminders should be posted in your urgent care center. Many companies then follow up by sending patients a text message or email survey 30–60 minutes

after they are discharged. This is the ideal timeframe to garner the most feedback.

If the patient responds positively to the survey, your company can then encourage them to leave a rating and/or review on Google. This twofold approach helps boost the number of positive reviews your business receives.

Ultimately, seeing that one urgent care company has more positive reviews than a competitor can help get new patients in the door.

“Capturing people’s attention at the exact moment they are trying to address a need means there is a high likelihood of turning them into a customer.”

Local Targeting

Thanks to the ubiquity of smartphones, businesses can interact with customers like never before. From a marketing standpoint, a phone’s GPS hardware is one of its most important components.

Local targeting allows businesses to advertise to customers within a certain geographic location. Since urgent care companies mainly cater to those within a certain vicinity of each practice, this is an extremely valuable tool.

Using geofencing strategies on platforms like Google Display Network lets your company create advertising “zones.”

When people on mobile devices are in those areas, they’ll see locally branded ads for your urgent care center. Setting up these zones around high-traffic areas like schools, fitness centers, and grocery stores can help get your message out to a relevant audience.

Doing so also pushes your company to the top of the customer’s mind. Then, when the need for urgent care arises, they are more likely to remember your business and turn to you for care.

Social Media

While setting up a website requires a significant investment, social media makes it easy for anyone to advertise online. It gives urgent care businesses a tremendous amount of flexibility.

If you need more visits on a certain day, you create a Facebook post and “boost” it within minutes to start advertising to customers. Compared to the months-long process of advertising with traditional methods like a billboard or newspaper ad, social media is much faster and efficient.

Likewise, social media advertising lets you target your audience in a variety of ways. You can tailor your posts to certain demographic groups, geographic locations, and even personal interests. This lets you get your message out to the right people instead of just sharing it with everyone that passes by.

Even when you aren’t purposefully advertising, posting regularly on social media is a great way to give your company a strong identity. People who “follow” or “friend” your urgent care center’s social media pages will receive regular updates. This keeps them informed about promotions, limited-time events or screenings, and announcements of things like opening a new location.

Better yet, as these people see and get familiar with your posts, they more are likely to comment and share them with friends. This spreads your company’s message even further.

Gmail

We’ve covered the fact that social media is a great advertising tool for urgent care companies. However, it isn’t the only useful method. Around the world, email is used by billions of people on a daily basis and is a perfect way to connect with potential customers.

Estimates suggest that Gmail accounts for 43% of all free email accounts and 27% of all email openings.¹ That’s thanks to the fact that Gmail has more than 1.8 billion users. This makes it a perfect platform to use for targeted advertising.

Companies can target users based on things like gender, age, household income, and even internet search activity. This allows you to get your message in front of people who are most likely to listen to it and gain something from what your urgent care business has to offer.

Since people spend about 2.5 hours per day checking their personal email accounts, this can be a unique way to connect with them.² It differs from many types of digital marketing and that may be enough to catch their attention.

Remarketing

The *Rule of 7* is a term that’s thrown around frequently in the advertising world. It means that people generally

need to see a company's message seven times before they are willing to make a purchase.³ The strategies discussed so far help you get your brand in front of people. However, showing potential customers an ad or leading them to your website one time won't be enough. Remarketing is a crucial part of any digital marketing strategy.

This can take a few forms. For instance, when a person visits your urgent care website and then clicks away, they'll see ads for your practice over the next few days. This will repeatedly put your company at the forefront of their mind.

For those dealing with a medical condition, it may take multiple visits to a website before they are ready to visit your clinic in-person. Strong remarketing encourages people to visit your business rather than a competitor's.

Pay-Per-Click Advertising

There are plenty of free ways to get your urgent care company's message out to people. Your website, regular social media posts, and positive customer reviews are just a few. However, paid marketing solutions are also an important part of the process.

One of the most popular methods is known as pay-per-click advertising. This is typically done through platforms like Google Adwords. It allows you to target certain keywords and search results and then place an ad for your business at the top of the page. The ad links to your Google Business profile, your website, or even a Facebook page.

The majority of online urgent care searching is geared towards people looking to address a certain problem. Pay-per-click advertising focuses on that segment of internet users. For instance, an urgent care clinic could target terms like *STD testing*, *on-site x-ray*, or *COVID-19 testing*. Users searching for those terms would then see an ad for your urgent care practice at the top of the results page.

Capturing people's attention at the exact moment they are trying to address a need means there is a high likelihood of turning them into a customer.

In Conclusion

It's clear that a sound digital marketing strategy is essential for every urgent care business. Although there are always people in need of urgent care services, getting them to your clinic requires a dedicated approach.

Using a variety of digital marketing tactics is the best way to do this. A strong website and pay-per-click advertising campaign get your business to the top of the search results. Positive reviews and connections with

Seven Digital Marketing Tactics for Urgent Care Success

1. Have a robust website
 - Create interesting content
 - Identify your target audience
 - Recognize who the healthcare decision-makers are
2. Manage your online reputation
 - Encourage patients to leave reviews on platforms like Google, Yelp, and Facebook
3. Target locally, employing geofencing strategies
4. Optimize social media tools
5. Max out your email platform's capabilities
6. Market—and then *remarket*
 - Remember the Rule of 7!
7. Use both free advertising and pay-per-click advertising

“There are plenty of ways to get your urgent care company's message out to people at no cost. Your website, regular social media posts, and positive customer reviews are just a few. However, paid marketing solutions are also an important part of the process. Pay-per-click advertising is one of the most popular methods.”

local news outlets build trust in your brand. A strong social media presence helps spread word of mouth and gets you connected in the community. Finally, paid advertising with fine-tuned targeting gets your message to those who are most likely to come through the doors.

By combining these strategies, your urgent care business will be poised for success in today's digital age. ■

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Do Respiratory Outpatient Clinics Decrease Bronchiolitis Reevaluation Rates? Observational Data from a Quality Improvement Project

Urgent message: Establishing respiratory outpatient clinics has been shown to decrease reevaluation rates for patients with bronchiolitis, especially in children aged <12 months and/or those who receive suctioning during their initial urgent care encounter.

PREMA D. SOUZA, MD; AIMY PATEL, MD; BRIAN LEE, PHD; and AMANDA NEDVED, MD

Citation: Souza PD, Patel A, Lee B, Nedved A. Do respiratory outpatient clinics decrease bronchiolitis reevaluation rates? Observational data from a quality improvement project. *J Urgent Care Med.* 2021;15(7):30-33.

Introduction

Bronchiolitis is a ubiquitous respiratory illness in the urgent care setting during the winter months. Children present with varying degrees of symptoms ranging from simple upper respiratory tract infection to respiratory failure requiring ventilator support.¹ For those under 12 months of age, bronchiolitis is the most common cause of hospitalization,² with approximately 100,000 admissions annually in the United States at a cost of approximately \$1.73 billion.³ Of the annual readmissions for bronchiolitis, 80% are estimated to be potentially preventable.⁴

As infants are obligate nose breathers, nasopharyngeal secretions caused by bronchiolitis that block the nostrils may cause transient decreases in SpO₂ and lead to respiratory distress.⁵ Suctioning of the nasopharynx to remove mucus and secretions is a common practice in both the inpatient and outpatient management of bronchiolitis. Nasal suction may be associated with an

improvement in SpO₂ in infants with bronchiolitis presenting to the emergency department.⁶ However, due to insufficient data, the American Academy of Pediatrics was unable to make a recommendation about suctioning in its most recent guidelines.⁷

Our institution opened its first respiratory outpatient clinic (ROC) in 2014 within one of our pediatric EDs. In 2019, the ROC model was expanded into all three metro area urgent care centers at our institution. Each ROC is staffed by a registered pediatric respiratory therapist (RT) who provides an airway assessment, suction intervention, and education. The RT also screens patients for complications of bronchiolitis that require further evaluation and management by a provider, such as dehydration, prolonged fever, or respiratory distress, and if necessary will recommend patients to one of our urgent care centers or EDs.

The impact of ROC referrals in the urgent care setting has not been evaluated. This report describes baseline ROC referral patterns. This information will identify gaps and opportunities for improving referrals with the overall aim to decrease reevaluation rates in patients discharged from the urgent care with a diagnosis of bronchiolitis.

Author affiliations: Prema D. Souza, MD, Children's Hospital, Kansas City, MO, University of Missouri Kansas City School of Medicine; Aimey Patel, MD, Children's Hospital, Kansas City, MO, University of Missouri Kansas City School of Medicine; Brian Lee, PhD, Children's Hospital, Kansas City, MO; Amanda Nedved, MD, Children's Hospital, Kansas City, MO, University of Missouri Kansas City School of Medicine. The authors have no relevant financial relationships with any commercial interests.

Table 1. Patient Demographics and Referral Type				
	ROC visit	ROC referral, no visit	No referral	p-value
Age (months)				<0.0001
0.0-3.99 months	107(15.9%)	30(4.5%)	537(79.7%)	
4.0-7.99 months	291(21.6%)	43(3.2%)	1013(75.2)	
8.0-11.99 months	139(15.7%)	24(2.7%)	722(81.6%)	
12.0-15.99 months	74(13.2%)	9(1.6%)	476(85.2%)	
16.0-19.99 months	28(7.7%)	4(1.1%)	331(91.2%)	
20.0-23.99 months	17(8.3%)	4(1.9%)	185(89.8%)	
Gender				0.848
Female	264(16.2%)	49(3.0%)	1316(80.8%)	
Male	392(16.3%)	65(2.7%)	1948(81.0%)	
Race				0.001
American Indian or Alaska Native	0(0.0%)	0(0.0%)	9 (100.0%)	
Asian	9(12.0%)	8(10.7%)	58 (77.3%)	
Black or African American	58(11.8%)	14(2.8%)	420 (85.4%)	
Declined/refused	7(15.6%)	1(2.2%)	37 (82.2%)	
Hispanic	34(13.9%)	6(2.5%)	204 (83.6%)	
Multiracial	53(16.0%)	10(3.0%)	268 (81.0%)	
Native Hawaiian or Pacific Islander	0(0.0%)	1(4.0%)	24 (96.0%)	
Other	10(15.4%)	2(3.1%)	53 (81.5%)	
Respondent not available	0(0.0%)	1(8.3%)	11 (91.7%)	
Unknown to respondent	0(0.0%)	0(0.0%)	13 (100.0%)	
White	485(17.8%)	71(2.6%)	2,162 (79.5%)	
Blank	5			
Insurance type				<0.0001
Commercial	413 (21.4%)	63 (3.3%)	1455 (75.3%)	
Medicaid	212 (13.8%)	47 (3.1%)	1278 (83.1%)	
Other	13 (19.4%)	0 (0.0%)	54 (80.6%)	
Self-pay	16 (7.9%)	2 (1.0%)	184 (91.1%)	
Unknown	2 (0.7%)	2 (0.7%)	293 (98.7%)	
Referral Location				<0.0001
BV Urgent Care	285 (20.1%)	43 (3.0%)	1092 (76.9%)	
EC Urgent Care	229 (14.0%)	45 (2.7%)	1367 (83.3%)	
NC Urgent Care	142 (14.6%)	26 (2.7%)	805 (82.7%)	
Suction treatment in UC				<0.0001
Nasopharyngeal suction	42 (4.9%)	9 (1.0%)	810 (94.1%)	
Nasal aspirator	350 (24.4%)	54 (3.8%)	1031 (71.8%)	
No suction	264 (15.2%)	51 (2.9%)	1423 (81.9%)	
Vitals				0.0001
Respiratory rate	44 (36,52)	40 (33,48)	40 (32,48)	0.6594
SpO2	98 (97,100)	98 (97,100)	98 (97,99)	

Method

Setting

There are three freestanding pediatric urgent care centers at the authors' institution located within a large metro area. The urgent care centers are staffed with general pediatricians and advanced-practice registered nurses who have approximately 90,000 patient encounters annually.⁷

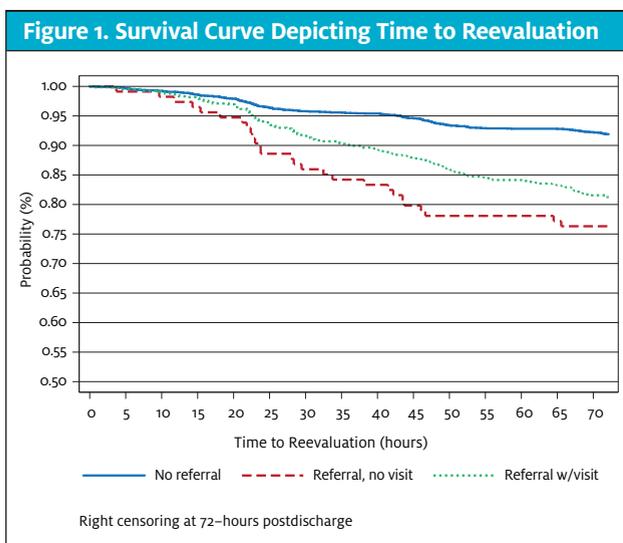
Project design

Baseline data were obtained via retrospective chart review of patients discharged from the urgent care center with a diagnosis of bronchiolitis from November 1,

2018 through February 29, 2020. All children aged 8 weeks to 24 months seen at an urgent care center with a documented discharge diagnosis of bronchiolitis (ICD-10 J21.1, J21.8, J21.0, J21.9, and J84.115) as one of the top three diagnoses were included in the study. We excluded infants less than 8 weeks of age and those who were admitted or transferred from urgent care during the same visit.

Data analysis

Patients were assigned to mutually exclusive groups for the analysis: A, ROC referral with visit (ROC visit group);



B, ROC referral without visit (ROC referral/no visit); and C, no ROC referral. Reevaluation was defined as a documented patient encounter within the authors' institution's ED, urgent care center, or inpatient unit within 72 hours of discharge from the index urgent care visit. Frequency distributions of patient demographics, suction treatment during the urgent care encounter, and reevaluations were compared across the ROC groups using Pearson's chi-square test. Non-parametric summary distributions of respiratory rate and oxygen saturation levels were calculated, and the Kruskal-Wallis test was used to compare across groups. A Kaplan-Meier survival analysis was performed to evaluate the time from urgent care encounter discharge to reevaluation for the three ROC referral groups; survival times were compared using the log-rank test for equality, and patients were right-censored after 72 hours post-discharge. Unadjusted logit models, stratified by select patient demographics (ie, patient age, gender, race, and insurance type), were used to evaluate for the presence of effect modification of the relationship between ROC referral group and reevaluations; contrasts between referral groups were adjusted for multiple comparisons. All analyses were completed using Stata (StataCorp. 2017. *Stata Statistical Software: Release 15*. College Station, TX: StataCorp LLC).

This study was deemed nonhuman subject research by the Children's Mercy Kansas City Institutional Review Board.

Results

There were 4,034 patient encounters that met inclusion criteria during our study period. Of the patients in these

encounters, 656 (16.3%) had an ROC visit, 114 (2.8%) had an ROC referral but no visit, and 3,264 (80.9%) had no ROC referral. Characteristics of the patient encounters are included in **Table 1**. The majority of patients (72%) were <12 months of age, and 59.6% were male. Patients with commercial insurance were more likely to present for an ROC visit than patients with other types of insurance. ROC referral was highest among patients who received nasopharyngeal (NP) suctioning during their index visit (28.2%). Patients who received no suctioning during the index visit were least likely to visit the ROC following their index visit (5.9%) ($p < 0.001$). The median respiratory rate at the index visit differed across groups ($p < 0.001$) and was highest among patients with an ROC visit (group A, 44 breaths per minute; interquartile range: 36–52). Oxygen saturation, however, was not significantly different among the three groups, with a median of 98% in all groups.

Reevaluation within 72 hours occurred in 415 (10.3%) of the encounters. Among these reevaluations, 220 (53.0%) occurred in the urgent care sites, 122 (29.4%) in the ED, and 73 (17.6%) resulted in patient admission. Seventy-eight percent of those reevaluated were under the age of 12 months. Additionally, 12.8% of patients who received NP suctioning were reevaluated, compared with 10.4% of patients receiving NA suctioning and 6% of those who received no suctioning. Only 17.4% of patients who were reevaluated were admitted to an inpatient unit (**Table 2**).

The rate of reevaluations was highest for patients who received a referral but no ROC visit (23.7%). Patients with no ROC referral had the lowest rate of reevaluation (8.1%). The follow-up time to reevaluations differed across groups (p -value < 0.001), with patients who received an ROC referral but no visit having the shortest time to reevaluation. Patients without an ROC referral had the longest time to reevaluation (**Figure 1**).

Discussion

In our study, most patients who received an ROC referral visited the ROC at least one time during the referral period. ROC visits were associated with longer duration between index visit and reevaluation, as well as an overall decrease in reevaluation rates for encounters in which an ROC referral was provided.

Although suctioning was associated with increased ROC referral, 77% of patients for whom suctioning at the urgent care was ordered did not receive an ROC referral. Patients who received NP suctioning at the index visit and were <12 months of age were more likely to receive an ROC referral; however, they were also more

likely to be reevaluated. These data suggest that encounters for patients who are <12 months or receive suctioning at the index visit are more likely to be reevaluated during their bronchiolitis illness. These patients may benefit the most from an ROC referral when available.

Clinical research on suctioning in bronchiolitis is limited,⁸ but our preliminary data suggest that ROC referrals can reduce reevaluation. This study supports previous findings that early interventions can mitigate the risk of prolonged hospitalization in bronchiolitis and reduce the rate of reevaluation.⁹ Patients for whom an ROC referral was ordered but no ROC visit was recorded were more likely to be reevaluated and had the shortest duration of time between the index visit and reevaluation. Patients who did not receive a referral were the least likely to require reevaluation within 72 hours. This finding is probably related to a selection bias, as those patients may have had a milder degree of illness. However, some patients in this group were reevaluated. Providing an ROC referral to eligible patients, regardless of illness severity at the index

visit, may further decrease the frequency of reevaluation in the urgent care center or ED.

Limitations

Our study is limited by its retrospective design. There is significant variation in diagnostic labeling of patients with lower respiratory tract infection,¹⁰ and the data set is entirely dependent on the diagnoses chosen by the treating providers. Because this is a single-center study, results may not be generalizable to all care settings. It is likely that this study population is a representative sample with rates of repeat hospitalization similar to those found in real practice. Patients were not eligible for ROC referral if they had chronic pulmonary conditions, such as chronic aspiration or cystic fibrosis; airway abnormalities, such as cleft palate, choanal atresia, or laryngomalacia; cardiac history, such as cyanotic heart disease; or home medical device use, such as nasogastric tube or gastrostomy tube. However, due to the complexity of identifying these patients, they were not excluded from the study.



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Table 2. Reevaluation rates by patient demographics and referral type

	ROC visit	ROC referral, no visit	No referral	p-value
Overall	123 (18.7%)	27 (23.7%)	265 (8.1%)	<0.001
Age (in months)				
0.0-3.99 months	27 (25.2%)	6 (20.0%)	65 (12.1%)	0.002
4.0-7.99 months	50 (17.2%)	13 (30.2%)	74 (7.3%)	<0.001
8.0-11.99 months	28 (20.1%)	3 (12.5%)	58 (8.0%)	<0.001
12.0-15.99 months	13 (17.6%)	2 (22.2%)	36 (7.6%)	0.008
16.0-19.99 months	3 (10.7%)	2 (50.0%)	21 (6.3%)	0.015
20.0-23.99 months	2 (11.8%)	1 (25.0%)	11 (5.9%)	0.106
Gender				
Female	52 (19.7%)	15 (30.6%)	104 (7.9%)	<0.001
Male	71 (18.1%)	12 (18.5%)	161 (8.3%)	<0.001
Race				
American Indian or Alaska Native			0 (0.0%)	-----
Asian	1 (11.1%)	2 (25.0%)	5 (8.6%)	0.246
Black or African-American	10 (17.2%)	1 (7.1%)	26 (6.2%)	0.013
Declined/refused	1 (14.3%)	0 (0.0%)	3 (8.1%)	0.557
Hispanic	8 (23.5%)	0 (0.0%)	19 (9.3%)	0.056
Multiracial	8 (15.1%)	5 (50.0%)	24 (9.0%)	0.001
Native Hawaiian or Pacific Islander			2 (8.3%)	0.999
Other	3 (30.0%)	0 (0.0%)	3 (5.7%)	0.075
Respondent not available			0 (0.0%)	-----
Unknown to respondent			0 (0.0%)	-----
White	92 (19.0%)	19 (26.8%)	183 (8.5%)	<0.001
Blank			0 (0.0%)	-----
Insurance type				
Commercial	71 (17.2%)	14 (22.2%)	132 (9.1%)	<0.001
Medicaid	48 (22.6%)	12 (25.5%)	115 (9.0%)	<0.001
Other	3 (23.1%)		3 (5.6%)	0.082
Self-pay	1 (6.3%)	1 (50.0%)	12 (6.5%)	0.149
Unknown	0 (0.0%)	0 (0.0%)	3 (1.0%)	0.999
Referral Location				
BV Urgent Care	56 (19.6%)	10 (23.3%)	82 (7.5%)	<0.001
EC Urgent Care	42 (18.3%)	10 (22.2%)	117 (8.6%)	<0.001
NC Urgent Care	25 (17.6%)	7 (26.9%)	66 (8.2%)	<0.001
Suction treatment in UC				
No suction	5 (11.9%)	1 (11.1%)	46 (5.7%)	0.129
Nasopharyngeal suction	65 (18.6%)	11 (20.4%)	107 (10.4%)	<0.001
Nasal aspirator	53 (20.1%)	15 (29.4%)	112 (7.9%)	<0.001

Conclusion

The ROC is a novel care model for the medical neighborhood to provide supportive management of bronchiolitis in a timely manner. Our baseline data suggest that ROC referrals decrease the rate of reevaluation to the urgent care center or ED in patients who receive the referral at the index visit. These preliminary data will be used to improve ROC referral rates for patients with bronchiolitis. Future Plan-Do-Study-Act cycles will focus on encouraging ROC referrals in eligible encounters regardless of illness severity. ■

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In each issue, *JUCM* will challenge your diagnostic acumen with a glimpse of x-rays, electrocardiograms, and photographs of conditions that real urgent care patients have presented with.

If you would like to submit a case for consideration, please email the relevant materials and presenting information to editor@jujm.com.

A 13-Year-Old Boy with Knee Pain After a Fall

Figure 1a.



Figure 1b.



Case

The patient is a 13-year-old boy who presents with knee pain after an awkward fall while playing basketball on an asphalt court. He is unable to walk due to pain and has a swollen knee.

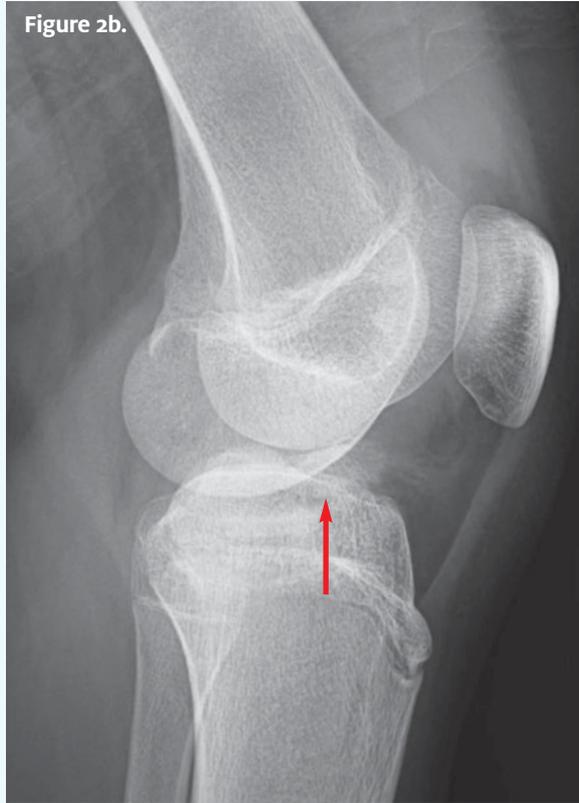
View the x-rays taken and consider what your diagnosis and next steps would be.

THE RESOLUTION

Figure 2a.



Figure 2b.

**Differential Diagnosis**

- Tibial eminence (spine) fracture
- Collateral ligament injury
- Tibial tubercle avulsion
- Meniscal tear
- Patellar sleeve fracture
- Tibial plateau fracture

Diagnosis

This patient experienced a tibial eminence (spine) fracture.

Learnings/What to Look for

- Tibial eminence (spine) fractures are unique to the growing skeleton and affect only three in 100,000 children who sustain injuries to the knee annually¹
- This fracture is a variant and similar to an ACL injury, also caused by hyperextension of the knee with rotation of the femur on the tibia
- X-rays should be sufficient to visualize fractures through the tibial eminence

- MRI or CT may be useful in further categorizing injury. In addition, MRI can help in identifying pieces of chondral fracture of the tibial spines

Pearls for Urgent Care Management

- Large effusions with significant pain or limitation of flexion benefit from arthrocentesis of hemarthrosis for symptomatic relief
- Initial treatment should include knee immobilization with fiberglass splinting in full extension and non-weight bearing with crutches
- Follow-up with orthopedics is recommended in 2-3 days for casting and to assess if surgical therapy is necessary. Significantly displaced avulsions require closed or open reduction with internal fixation
- Emergency department referral is necessary for any concerns about neurovascular status or for pain out-of-proportion

Reference

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



A 34-Year-Old Female with a Syncopal Episode but No Remarkable History

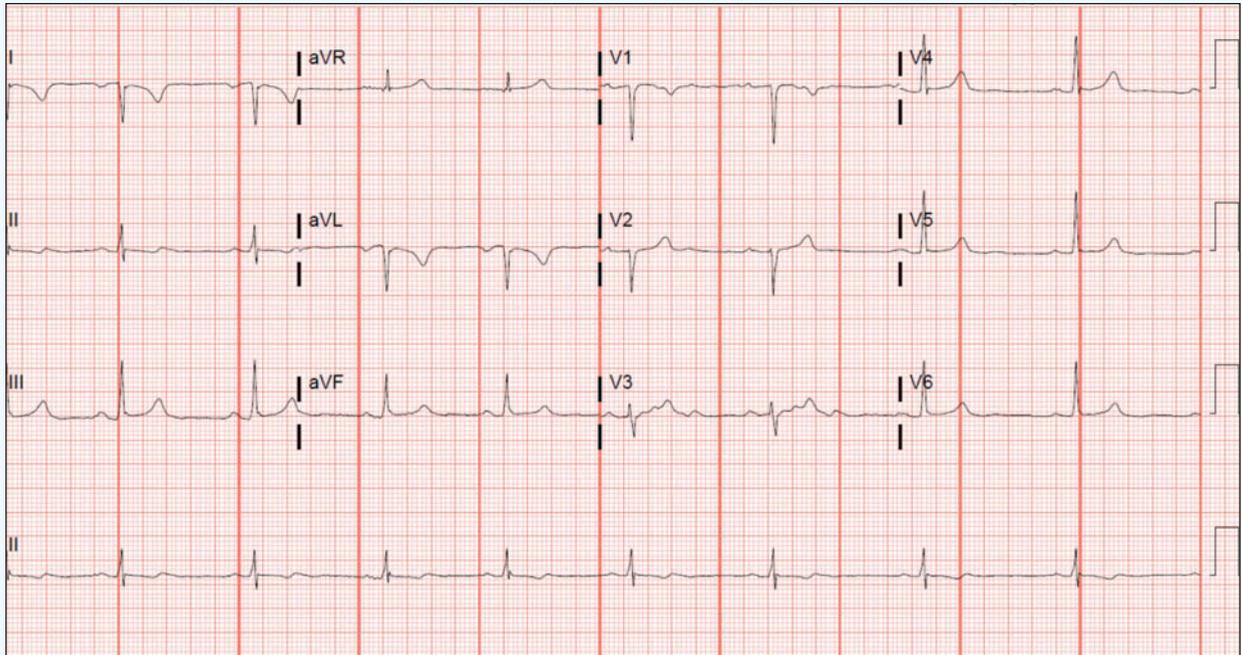


Figure 1.

Case

A 34-year-old female with no reported medical history presents to urgent care after a syncopal episode. She describes standing up rapidly to answer the phone, followed by a sensation of lightheadedness and nausea with subsequent collapse.

On evaluation, her vital signs are normal, she appears well, and she is currently asymptomatic.

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

(Case presented by Tom Fadial, MD, The University of Texas Health Science Center at Houston.)

THE RESOLUTION

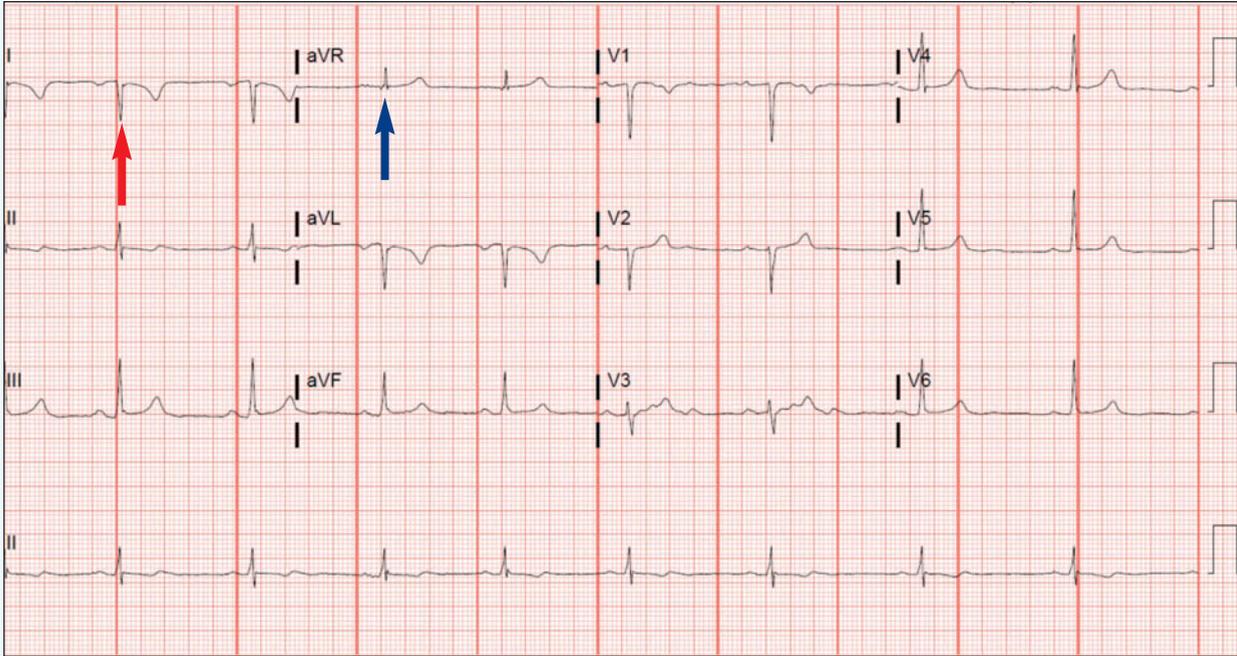


Figure 2.

Differential Diagnosis

- Ectopic atrial rhythm
- Myocardial ischemia
- Myocardial infarction
- Limb lead reversal

Diagnosis

The ECG shows a regular, narrow-complex rhythm at a ventricular rate of 54 bpm. A QRS-complex follows every P-wave; however, the P-wave axis is abnormal—with an inverted P-wave in lead I and upright in aVR (where the inverse would be expected for sinus node origin). There are T-wave inversions in leads I and aVL, suggestive of myocardial ischemia.

This ECG illustrates a limb lead reversal (LLR).

The presence of negative P-QRS complexes in lead I (red) is unusual for this young patient with no significant medical history. If the finding were to represent a real underlying condition (such as severe pulmonary disease), some corroboration in the precordial leads would be expected. Moreover, the bizarre positive P-QRS complexes in aVR (blue) suggest an alternative diagnosis—limb lead misplacement.

Between 0.4% and 4% of ECGs obtained in various settings demonstrate features of lead misplacement.¹ Lead misplacement may either obscure important findings or simulate the appearance of ectopic rhythms, conduction disturbances, chamber abnormalities, and ischemia/infarction, resulting in unnecessary and po-

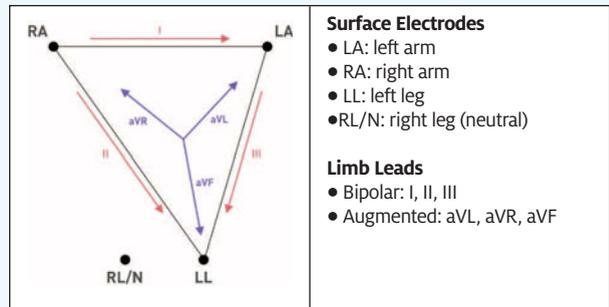


Figure 3.

tentially invasive testing.²

The key ECG findings suggestive of lead misplacement are dependent on the leads involved. The relationship between limb leads and surface electrodes are defined by Einthoven's triangle (Figure 3).

Limb lead reversals distort Einthoven's triangle and result in predictable changes in the ECG.³

When lead reversals involve RL or the neutral electrode, a more

Reversal	I	II	III	aVR	aVL	aVF
LA/RA	-I	III	II	aVL	aVR	-
LA/LL	II	I	-III	-	aVF	aVL
RA/LL	-III	-II	-I	aVF	-	aVR

THE RESOLUTION

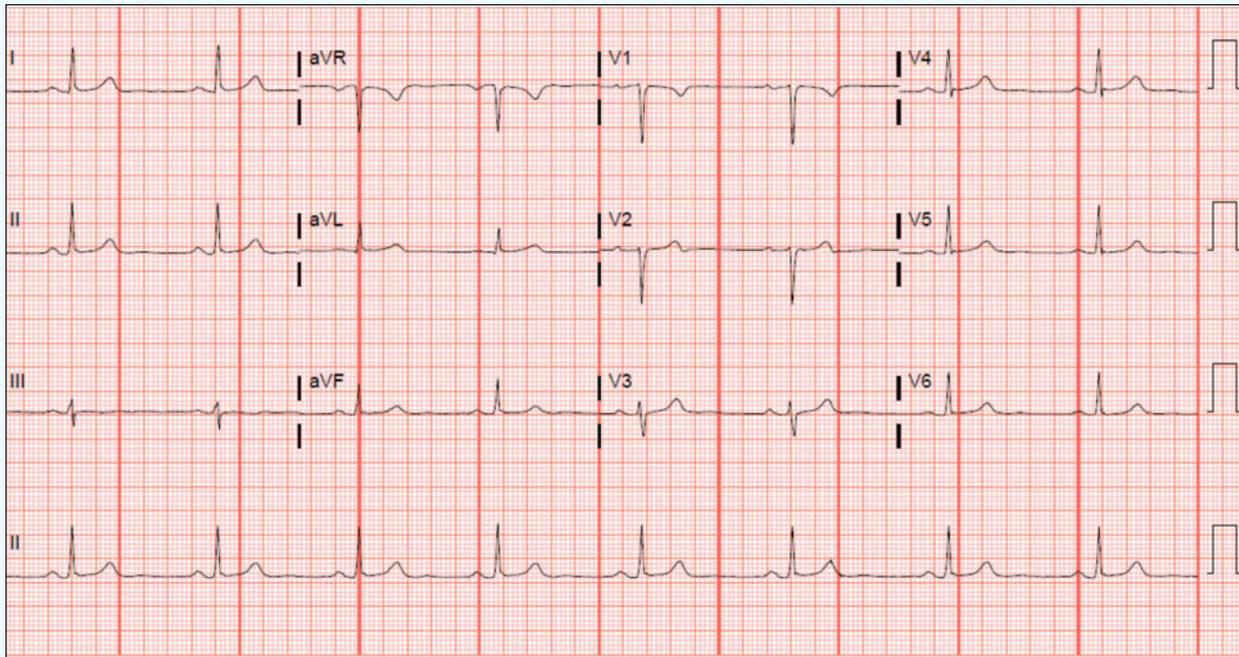


Figure 4.

dramatic distortion of Einthoven's triangle occurs such that one of the bipolar limb leads is conspicuously flat.

In this patient, the presence of negative P-QRS-T complexes in lead I combined with positive deflections in aVR are suspicious for LA/RA reversal. A repeat ECG was obtained (**Figure 4**).

Learnings/What to Look for

- Some key electrocardiographic features of limb lead reversal are:^{4,5}
 - Opposing directions of P-QRS complexes between I and V6 (limb and precordial leads with shared axes)
 - Positive P-QRS in aVR
 - Extreme axis deviation (between $+180^\circ$ and -90°)
 - P-wave amplitude greater in lead I than II
 - Very-low amplitude in isolated limb lead (I, II, III)

Pearls for Urgent Care Management

- Trust your clinical impression—a bizarre-appearing ECG with some of the features above warrants a repeat with careful attention to lead placement prior to definitive action

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Acknowledgment: JUCM appreciates the assistance of ECG Stamped (www.ecgstamped.com) in sourcing content for electrocardiogram-based cases for *Insights in Images* each month.

ECG  STAMPEDE

Correction: In the *Insights in Images* department that appeared in the March issue of *JUCM*, we printed an incorrect version of an ECG in the "reveal" portion of the cardiology case. To view the full case including the correct version of the image, visit: <https://www.jucm.com/a-96-year-old-male-with-palpitations-and-a-history-of-cad/>.

IgA Vasculitis in Children: Beyond the Rash

Urgent message: While most cases of IgA vasculitis are benign, it is essential for the urgent care provider to screen for complications, such as gastrointestinal hemorrhage, intussusception, and nephritis, as well as for renal disease.

DIANA SOFIA VILLACIS NUNEZ, MD; AMIT THAKRAL, MD, MBA; and PAREEN SHAH, MD

Case Presentation

A 12-year-old previously healthy female presents with a 5-day history of lower extremity rash and low-grade fever (100.6°F). A month earlier, she had a self-resolving viral upper respiratory infection. The rash is described as mildly pruritic, dark red spots which started on her feet and spread upwards to her thighs. Associated symptoms include decreased appetite, bilateral ankle pain and swelling, bilateral feet swelling, and refusal to walk. Patient did not complain of abdominal pain, nausea, vomiting, headaches, dizziness, dysuria, hematuria, hematochezia, or melena.

Therapy at home included ibuprofen as needed for pain and diphenhydramine for pruritus.

At initial presentation in the urgent care center, she was afebrile (98.6°F) with a heart rate of 101 beats/minute, respiratory rate of 20 breaths/minute, blood pressure of 123/79 mmHg, and an oxygen saturation of 99% on room air. Physical examination showed a palpable, purpuric, non-blanching rash, most prominent on the lower legs and ankles (**Figures 1a** and **1b**). Her ankles were notable for joint effusions bilaterally without erythema. She had full range of motion of all joints, but experienced pain with passive and active movement. Her abdomen was soft and nontender without palpable organomegaly. The rest of the physical exam was unremarkable.

Overview

IgA vasculitis (IgAV), formerly known as Henoch-Schönlein purpura (HSP), is the most common systemic



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vasculitis in childhood, affecting eight to 20 per 100,000 children each year, accounting for roughly 50% of pediatric vasculitis cases in the United States.^{1,2} It involves small vessels with predilection for the skin, gastrointestinal tract, and kidney vasculature.³ Most cases present at between 2 and 10 years of age, with a peak incidence at 4 years of age; it is less common in teenage years and adulthood.^{4,5} There is seasonal variation with most cases occurring during the fall and winter seasons² and there is a strong association with preceding or intercurrent viral disease or Group A streptococcal infection.² IgAV

Author affiliations: Diana Sofia Villacis Nunez, MD, Amit Thakral, MD, MBA, and Pareen Shah, MD are all affiliated with the Department of Pediatrics, Emory School of Medicine. The authors have no relevant financial relationships with any commercial interests.

is typically benign, but there are several complications that require hospitalization and/or aggressive treatment.

History

Children with IgAV classically present with a purpuric rash involving the lower extremities which may be accompanied by arthralgias, abdominal pain, and/or renal involvement. Abdominal pain and joint pain can precede the rash by up to 1 week²; this can make diagnosis difficult since the rash is necessary for the diagnosis. Musculoskeletal symptoms, however, can be delayed for up to a month after the development of rash, and nephritis can manifest several months later.⁶

Skin

Skin rash is visible in 95%–100% of cases at diagnosis⁶ and presents over the course of a few days. It usually appears in crops and may start as erythematous macules that progress into the classic purpuric rash. It can be painful and pruritic. Individual lesions tend to last 3–10 days.² Absence of the typical rash especially, during early stages of the disease, does not completely exclude the diagnosis of IgAV.

Gastrointestinal

Gastrointestinal symptoms are present in approximately 60% of patients with IgAV.^{5,7} Acute, diffuse, colicky abdominal pain is the most common gastrointestinal manifestation. The intensity can range from mild to severe, prompting a surgical evaluation. Other reported symptoms can include hematemesis, melena, and hematochezia, likely indicating gastrointestinal bleeding from mucosal edema.

Musculoskeletal

An estimated 70%–90% of patients with IgAV develop arthralgias or arthritis at some point during their illness.^{4,7} Articular involvement has a predilection for the lower extremities, especially the knees, and ankle joints, subsequently interfering with ambulation.² Young children generally seek medical attention due to joint swelling and refusal to bear weight.

Renal

Renal involvement can occur in 20%–80% of patients with IgAV.^{4,8} Most patients with IgAV nephritis are asymptomatic. However, the presence of gross hematuria, decreased urinary output, and lower-extremity edema should alert the clinician for possible renal involvement. Renal manifestations can include minor urinary abnormalities (hematuria, non-nephrotic range

Table 1. Differential Diagnosis of Palpable Purpura (Modified)¹⁰

Thrombocytopenic purpura	<ul style="list-style-type: none"> • Immune thrombocytopenic purpura • Thrombotic thrombocytopenic purpura
Infection-related	<ul style="list-style-type: none"> • Sepsis • Disseminated intravascular coagulation • Papular purpuric gloves and socks syndrome
Other types of vasculitis	<ul style="list-style-type: none"> • Hypersensitivity vasculitis • Urticarial vasculitis • Mixed cryoglobulinemia • Cutaneous polyarteritis nodosa • Anti-neutrophilic cytoplasmic antibodies • (ANCA)-associated vasculitis
Rheumatic disease	<ul style="list-style-type: none"> • Systemic lupus erythematosus • Sjogren syndrome • Mixed connective tissue disease • Juvenile dermatomyositis • Antiphospholipid syndrome

proteinuria), nephritic syndrome, and nephrotic syndrome, and can eventually lead to end-stage renal disease in a minority of patients.^{3,8}

Physical Examination

Vital Signs

Low-grade fever can be expected, especially in the setting of other intercurrent illness, but high fever should prompt investigation for bacterial infection, sepsis, and disseminated intravascular coagulation. Tachycardia or hypotension may be observed with dehydration or with acute anemia due to significant blood loss from the gastrointestinal tract, although significant anemia is rare. The presence of hypertension may be a sign of renal involvement.

Skin

The characteristic IgAV rash is the presenting symptom for the majority of patients. It is important to expose all areas of skin to evaluate the features of the rash and the extent of involvement. The skin lesions are purpuric, non-blanchable and symmetrically distributed, and can be surrounded by skin edema and erythema. The rash is neither itchy nor painful and typically involves the buttocks and lower extremities, but it can also affect other areas of the body.^{2,4} Urticarial lesions can be present in some patients.⁹ Petechiae can also be observed. The lesions can be complicated by necrosis and bullae formation. More commonly in younger patients, non-pitting edema that involves the scalp, face, trunk, and



Figure 1a and 1b. IgAV purpura on the lower extremities of a 12-year-old female.

Table 2. Classification Criteria for IgA Vasculitis (Modified from EULAR/PRINTO/PReS)⁷	
Mandatory criterion	<ul style="list-style-type: none"> • Purpura or petechiae with lower limb predominance, not related to thrombocytopenia
Plus at least one of the following:	<ul style="list-style-type: none"> • Abdominal pain • Arthritis or arthralgias • Renal involvement: proteinuria, hematuria (as defined in diagnostics section) • Histopathology: Showing IgA deposition (required for purpura with atypical distribution)

Table 3. Indications to Consider Corticosteroid Use^{3,4}
<ul style="list-style-type: none"> • IgAV nephritis • Severe gastrointestinal involvement: severe abdominal pain, bleeding, perforation • Orchitis • Central nervous system vasculitis • Pulmonary hemorrhage • Severe joint pain preventing ambulation • Bullous or necrotic skin lesions

extremities can be present.² Scrotal swelling can also be observed, even in the absence of orchitis. The rash should be differentiated from other causes of petechiae or palpable purpura (Table 1).

Gastrointestinal
The abdominal exam of a child with IgAV is typically benign. A tender or distended abdomen warrants further investigation for GI complications, such as intussusception.³

Musculoskeletal
Patients with IgAV joint involvement typically have ef-

fusions, pain, and/or limited range of motion. These joint symptoms typically involve the lower extremities and rarely affect more than five joints.^{2,4}

Other
Other, less common manifestations include orchitis, pulmonary hemorrhage, and central nervous system involvement manifesting as altered mental status and seizures.⁴

Diagnosis
IgA vasculitis is a clinical diagnosis. Laboratory and other diagnostics are employed to assess for complications or other conditions that mimic IgAV; this necessity is dependent on the severity of disease.

There is no single serologic study that can confirm the diagnosis of IgAV. When the diagnosis is not obvious from history and physical examination alone, ancillary studies may be used to exclude other conditions that can mimic IgAV.

Classification criteria by the European League Against Rheumatism (EULAR), Pediatric Rheumatology European Society (PReS), and Pediatric Rheumatology International Trials Organization (PRINTO) (Table 1) provides 100% sensitivity and 87% specificity for classification of IgAV, and can serve as a guide for physicians evaluating these patients.⁷

Evaluation

All patients with IgAV should be screened for associated kidney disease which may be relatively asymptomatic. This evaluation should include a urinalysis and a blood pressure measurement with an appropriate pediatric-sized cuff. Patients with significant hypertension, edema, proteinuria, or hematuria should have further assessment including urine protein, urine creatinine, and a basic metabolic panel including electrolytes and BUN/Cr.

If the patient has normal urine output and no generalizable edema, this added evaluation is nonurgent and can be performed on-site or sent to a reference laboratory.

If the rash has extensive petechiae or if the dermatologic features are not diagnostic, patients should have a complete blood count with differential and a prothrombin time. These tests primarily evaluate for the *absence* of thrombocytopenia and coagulopathy, which are diagnostic criteria. These tests can be done non-emergently unless the patient has extensive petechiae, concern for GI blood loss, or other symptoms to suggest a bleeding disorder. If thrombocytopenia is present,

causes of thrombocytopenic purpura or acute infection should be explored.¹⁰ Mild leukocytosis and thrombocytosis can be evidenced in some patients.⁵

Patients with IgAV arthritis do not typically require further diagnostic evaluation for the joint symptoms. If there is significant pain, high fever, or other signs of an infectious/septic joint, further evaluation can be pursued as needed. This evaluation could include inflammatory markers (eg, CRP, ESR) or dedicated infectious testing (eg, Lyme titers).

Patients with IgAV abdominal pain may require further evaluation depending on the severity of the pain. It is helpful to test for fecal occult blood even in the absence of reported GI bleeding as it can be positive in patients without reports of bloody or melanic stools.⁶ Patients with significant abdominal pain should be referred to a pediatric ED for an abdominal ultrasound to evaluate for an ileo-ileal or ileo-colic intussusception.

When the diagnosis is indeterminate or if the rash distribution or characterization is atypical, a referral



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Pearls for the Urgent Care Provider

IgAV is the most common systemic vasculitis in children. Most cases are benign and resolve with supportive care. While IgAV is a clinical diagnosis, it is important to screen for complications, which could include gastrointestinal hemorrhage, intussusception, and nephritis. All patients should be screened for renal disease with urinalysis, blood pressure, and physical exam. Further assessment or need for transfer depends on the severity of the disease. Some patients may improve with corticosteroid therapy, but generally this should be reserved for complicated cases or those with severe symptoms after excluding other potential causes.

to Dermatology is warranted to consider skin biopsy.⁷

Additionally, serum IgA level elevation is seen in more than 50% of patients, which may be a helpful adjunct when there is diagnostic uncertainty.^{9,11}

Management

Most cases can be safely managed in the urgent care setting. Patient transfer to a hospital should be considered depending on the severity of symptoms after consultation with a pediatric specialist. The most common reasons for transfer include severe abdominal pain, inability to ambulate, gastrointestinal hemorrhage, renal insufficiency, significant nephritis, unclear diagnosis, or (rarely) for central nervous system or pulmonary complications.

The cornerstone of management is supportive care by providing adequate hydration, analgesia, and observation. Intravenous rehydration is rarely necessary unless there is either significant abdominal pain or signs of dehydration. Skin lesions tend to have spontaneous resolution and do not require specific therapy. Pruritus, while uncommon, can be managed with oral antihistamines.

Nonsteroidal antiinflammatory drugs usually provide adequate relief for IgAV arthritis. NSAIDs should be avoided in patients with significant gastrointestinal bleeding or renal involvement. Microscopic hematuria alone is not a contraindication for NSAID use.³

Treatment with corticosteroids should be considered in cases of severe symptoms or significant end-organ involvement in consultation with a specialist.³ Corticosteroids have not shown to alter the natural course of the disease and their use as prophylaxis to prevent development of nephritis has not been proven useful.^{3,4,6} The most common indications for corticosteroid use include severe abdominal pain and/or worsening arthralgias after excluding other causes. A complete list of possible indications for steroid use is offered in **Table 3**. The preferred corticosteroid regimen is prednisone

or prednisolone 1-2 mg/kg/day for 1-2 weeks followed by a 2-4 week taper.³ Intravenous methylprednisolone at higher doses or other immunosuppressants may be used for severe, life-threatening organ involvement (gastrointestinal, lung, and CNS).³

Prognosis is overall favorable for patients with IgAV. Upon discharge, it is important to provide reassurance and education about potential complications, as well as to ensure appropriate follow-up. Patients should be evaluated by their primary care provider within 1 week. IgAV is generally a self-limited condition and resolution of symptoms typically occurs within 4-6 weeks.²

Rarely, patients can have recurrence of IgAV episodes. In these situations, it's best to consult with a pediatric rheumatologist to consider steroid therapy for flare control.

Case Resolution

The patient's pain and pruritus improved after one dose of ibuprofen and diphenhydramine, and she regained ambulation. She was then discharged home with ibuprofen for pain control and hydroxyzine for pruritus. Five days later, her condition worsened and she presented to the ED with leg pain and ankle swelling interfering with ambulation, intermittent mild-to-moderate abdominal pain, and a worsening rash extending up her buttocks with development of blisters. The patient was admitted to the hospital for intravenous analgesia. Oral prednisone 1 mg/kg/day was started. She did not require abdominal imaging and she did not develop nephritis. Twenty-four hours later, she was discharged home on a 6-week prednisone taper along with naproxen 250 mg twice a day for pain control with symptomatic improvement. ■

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New Technical Corrections Issued by the AMA Explained

■ MONTE SANDLER

In March 9, 2021, the American Medical Association updated the new evaluation and management (E/M) coding guidelines with technical corrections. These clarifications apply to the office visit codes 99202–99215 and are retroactive to January 1, 2021.

In the past few months there has been industry confusion over whether a test can be counted under the data element for the E/M level when the practice is also billing for the test. The AMA has answered this question with further guidance.

Which In-House Tests Should Be Counted?

The *Services Reported Separately* section and definitions were revised. Documentation now supports counting the order of each unique laboratory test under *Category 1: Tests and documents* regardless of who is billing the service.

The professional component of a test is defined as the physician's interpretation of the results with preparation of a separate distinctly identifiable signed written report. The professional component is part of the global CPT code or may be reported with modifier 26 when that is the only portion of the test performed.

According to the corrections, tests with a professional component (eg, radiology) that is reported by the practice would not be counted under the data element. However, tests without a professional component (eg, laboratory) would be counted.

This guidance may also support counting the order of a test when only the technical component of that test is billed. Usually this is with a TC modifier, but there are some codes (eg, ECGs) in the medicine section that have unique CPT codes for each component of the test when performed separately.

The AMA further clarified that pulse oximetry is not considered a test and would not be counted.

When Should Tests Be Counted?

The visit for which visit a test should be counted as a data element was explained further by the AMA.

Basically, tests can be counted under *Category 1: Tests and documents* only once regardless of when the test results are analyzed.

A test ordered/reviewed during a visit is counted as one unique test for the level of that visit.

A test ordered/reviewed outside of a visit is counted as one unique test for the level of the next visit.

You cannot count an order of a test in one visit and the results of this test in a subsequent visit.

Can Tests Considered Be Counted?

Finally, the AMA added that tests considered but not selected may be counted as an order under *Category 1: Tests and documents*. To quote the guidelines verbatim:

“Ordering a test may include those considered, but not selected after shared decision making. For example, a patient may request diagnostic imaging that is not necessary for their condition and discussion of the lack of benefit may be required. Alternatively, a test may normally be performed, but due to the risk for a specific patient it is not ordered. These considerations must be documented.”

As a reminder, a unique test is represented by a CPT code regardless of the number of times it is billed. For example, multiple ECGs would be counted as one order. A clinical laboratory panel would be counted as a single test as it is one unique CPT code.

Additional Clarification Regarding Risk

The AMA emphasized that the *Number and Complexity of Prob-*



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

[Introduction to the document as published by the AMA]
**Prolonged Services (99354, 99355, 99356, 99417)
 Code and Guideline Changes¹**

This document includes the following CPT E/M changes, effective January 1, 2021:

- E/M Introductory Guidelines related to Office or Other Outpatient Codes 99202-99215
- Revised Office or Other Outpatient E/M codes 99202-99215
- In addition, this document has been updated to reflect technical corrections to the E/M Guidelines:
 - were posted on March 9, 2021 and effective January 1, 2021:
 - Medical decision making is revised in the following ways:
 - Clarifying when reporting a test that is considered, but not selected after shared decision making
 - Providing a definition of “Analyzed” for reporting tests in the data column
 - Clarifying the definition of a “unique” test
 - Clarifying what is meant by “discussion” between physicians, and other qualified health care professionals and patients
 - Providing a definition of major vs minor surgery
 - Clarification around which activities are not counted when reporting time as a key criterion for code level selection

Reference

1. American Medical Association. Prolonged Services (99354, 99355, 99356, 99417) Code and Guideline Changes. Full text available at: <https://www.ama-assn.org/system/files/2019-06/cpt-office-prolonged-svs-code-changes.pdf>]

lems Addressed at the Encounter element relates to risk from the condition while the *Risk of Complications and/or Morbidity or Mortality of Patient Management* relates to the management selected. The two are distinct elements that may not always correlate.

This supports using the differential diagnosis, not the final diagnosis, when determining if the presenting condition has a high risk of morbidity without treatment. While a patient may present with symptoms that may cause a high risk of morbidity, the final diagnosis may not be highly morbid. It’s the differential diagnosis, however, that determines the clinician’s medical decision-making (MDM).

Based on these corrected guidelines and observations from our audits, practices need to continue to educate their providers on how best to document what they are considering for each of the elements of MDM.

- *Number and Complexity of Problems Addressed* should be based on the risk of the presenting condition, not the final diagnosis.
- *Amount and/or Complexity of Data to Be Reviewed and Analyzed* may include tests considered but not selected (eg, patient declines).
- *Risk of Complication and/or Morbidity or Mortality of Patient Management* should include management options considered but also not selected.

The challenge continues as providers struggle to put everything they are considering in a succinct note to get credit for their work. ■



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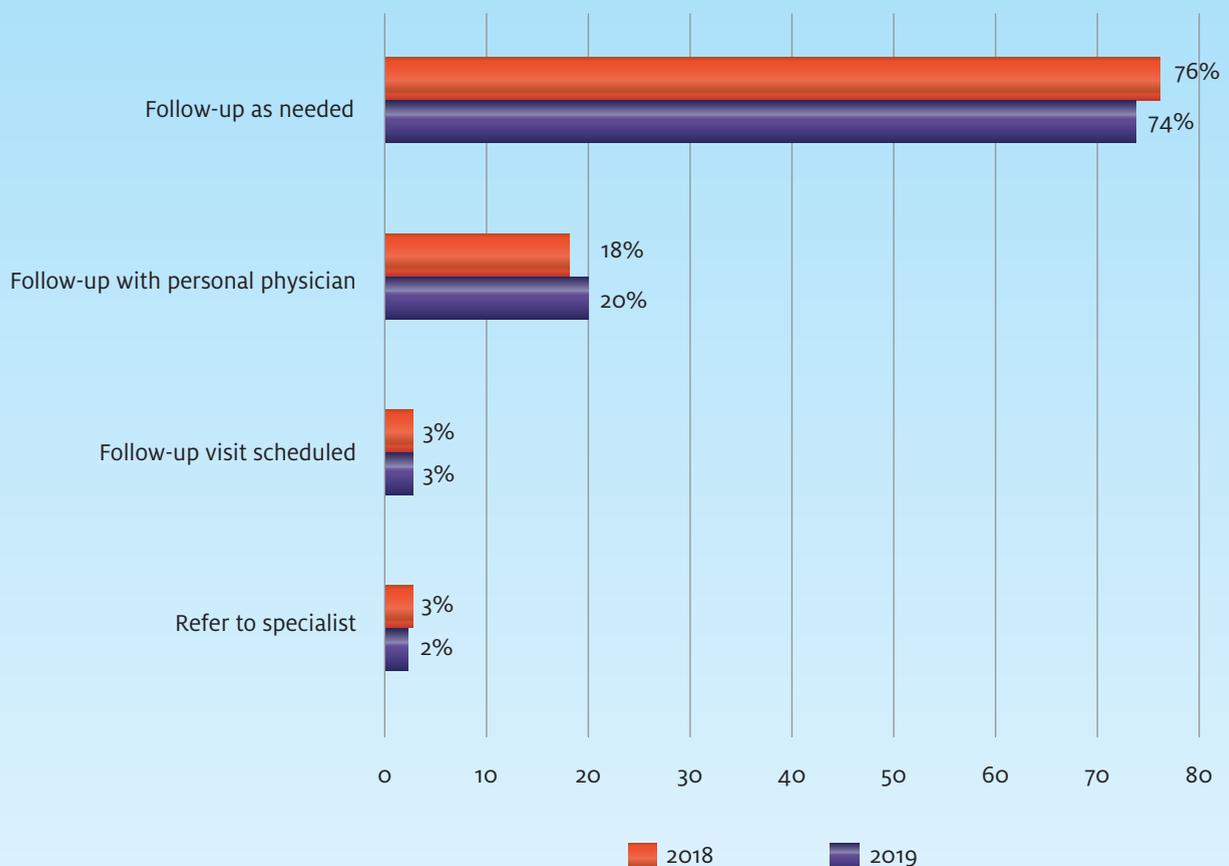
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See the graph below for insights drawn from JUCM's own proprietary research. ■

DISPOSITION OF URGENT CARE VISITS



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