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College of Urgent Care Medicine

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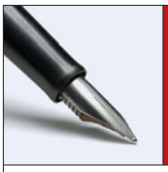
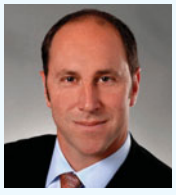


LETTER FROM THE EDITOR-IN-CHIEF

Do the *MACRA'ena*?



Corny titles aside, MACRA/MIPS is creating a great deal of uncertainty and anxiety among physician practices, and urgent care centers are no exception. I have seen a lot of urgent care news sources, including this journal, referencing the latest updates from CMS (or recent articles published by other organizations), but urgent care-specific analysis is in short supply. I frequently hear colleagues say, "Medicare is such a small percent of my business, it's just not worth the hassle."

Or is it? As with most government programs, complying with the rules indeed seems daunting. And on the surface, the potential return, in the form of bonuses that start in 2019, is hardly motivating.

I am not a MACRA/MIPS expert. Nor am I going to try to explain the program and all its rules. There is plenty of detailed information available on the CMS website and in the practice management journals. What I'd like to do instead is jump right to the return-on-investment (ROI) analysis so you can determine whether it's even worth the effort. My approach is meant to simplify your ROI assessment, not to be an exact forecast for your practice.

First, some definitions: *MACRA* (Medicare Access and CHIP Reauthorization Act) essentially, replaces the *SGR* (sustainable growth rate) with a new "value-based" reimbursement system:

1. *MIPS* (Merit-Based Incentive Payment System)
2. Advanced APMs (Advanced Alternative Payment Models)

Now, MIPS is the only likely pathway for participation for the vast majority of urgent care centers, so let's look at how you will get paid under this new program:

- Each year from 2017 through 2020, practices that receive Medicare Part B payments will see a combination of incentives and penalties based on their participation *and* performance in MIPS.
- All MIPS participants will get an inflationary adjustment of 0.5% per year for the first 3 years (valued at a total of 1.5% by 2019).
- More importantly, participants in MIPS will receive a bonus or penalty that ranges from -4% to +4% in 2017 and escalates to -9% to +9% in 2020.
- If you choose not to participate, you will automatically be penalized 9% by 2020 and will not receive the inflationary adjustment (1.5% by 2019).

So, consider the top-to-bottom range (from penalty to bonus) for each year and then add the inflationary adjustment. To keep this relatively simple, by 2020, the top to bottom range is 19.5% (-9% to +9% plus the 1.5% inflation adjustment).

Let's look at how this might impact a typical urgent care:

- A center seeing 15,000 patients per year with a 10% Medicare mix with an average 2016 reimbursement of $120/visit chooses *not* to participate in MIPS. By 2020, this urgent care will see a $16,900 drop in annual revenue, and miss out on both the $2,700 annual inflationary adjustment and the opportunity to achieve an additional $6,900 in performance-based incentive payments.

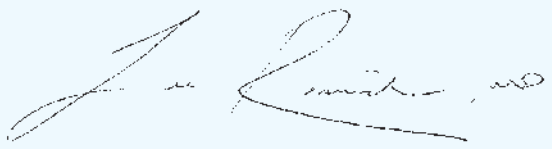
So, the total potential revenue impact in this scenario is $36,500 per year. For those with larger urgent care networks, the revenue impact for participation in MIPS can be even more significant to the bottom line.

Participants can also receive a multiplier for their bonus payment based on a "budget neutrality factor." If the penalties outnumber the incentive payments in any given year, then there is more money to dole out. This multiplier is capped at 3X.

And if that wasn't enough, there's an additional bonus opportunity of up to 10% per year for "exceptional performance."

That's a total bonus opportunity by 2020 of up to (9% X 3) + 10% + 1.5%, or 38.5%. And by avoiding the 9% penalty, the "top-to-bottom" impact represents as much as 47.5%! In my typical urgent care scenario, that's as much as $85,500 per center per year. Do I have your attention now?

Next month, I will share some thoughts on how to choose and implement the quality and performance improvement measures that are integral to the MIPS program. ■



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Mission Statement
JUCM The Journal of Urgent Care Medicine supports the evolution of urgent care medicine by creating content that addresses both the clinical practice of urgent care medicine and the practice management challenges of keeping pace with an ever-changing health-care marketplace. As the Official Publication of the Urgent Care Association of America and the Urgent Care College of Physicians, *JUCM* seeks to provide a forum for the exchange of ideas regarding the clinical and business best-practices for running an urgent care center.

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Snakes have their fans (many of whom truly are fanatical), but for the most part if there's a snake in the story it's not going to be portrayed well. Villains are often called "a snake in the grass." Toxic work environments are referred to as snake pits. Most of all, as it pertains to this issue, let's not forget the term *snake-bit*—as in, experiencing a run of bad luck.

As an urgent care provider, you could be in a position to turn that around for patients who come after being literally snake-bit, though.

That's the purpose of **Urgent Care Evaluation for Snakebite Envenomation** (page 11), by **Andrew Vang, DO**. As he explains, many patients presenting with snakebites may not be able to provide enough details for you to make the diagnosis. Some won't even know they were bit by a snake, for example; they may complain about a sudden sharp pain, followed by any number of symptoms. To get to the cause, you'll need to probe for very specific facts. These are all detailed in the article.

Dr. Vang is an emergency medicine resident at Ohio's Adena Regional Medical Center.

This month's Case Report could fall into the same category—a less-common presentation that could result in an extremely poor outcome if the diagnosis isn't determined in short order. Here it's superior mesenteric artery (SMA) syndrome. And, if you read **Intermittent Abdominal Pain and Vomiting in a Teenager: One More Urgent Cause to Consider** (page 35), you'll see why it should be included in the differential diagnosis in children with abdominal pain.

The case is presented expertly by authors **Ralph Mohty, MS4**, a fourth-year medical student at the University of Arizona College of Medicine- Phoenix and **Ryan Esmay, MD**, a family and urgent care physician at CIGNA Healthcare of Arizona.

Something vastly more common—postdischarge follow-up calls—can also be incredibly important. Executed professionally, follow-up calls can improve the care patients ultimately receive and certainly can portray your urgent care center in a positive light. Patients will feel truly cared for, and their "regular" doctors are likely to get the message and feel more positive about referring patients to you, too.

As with many things in life, the devil is in the details. Nurse practitioner **Jimmie Toler, MSN, NP-C; Emily E. Johnson, PhD**, an assistant professor at the College of Nursing at the Medical University of South Carolina; and her fellow assistant professor **Barbara J. Edlund, PhD, ANP, BC** devised a small study to prove that effective telephone follow-up supports urgent care's essential role in the continuum of care. **Quality Improvement Report: Improving Telephone Follow-Up in an Urgent Care Setting** starts on page 22.

That junction where clinical excellence meets business acumen is at the heart of any successful urgent care facility. Astute operators are always looking for ways to offer the best quality while conserving expenses. One way is to "share" employees across multiple locations. It can be a great way to minimize costs. Taking the wrong step, however, could land you in legal trouble. **Streamlining Management of Shared Employees Across Multiple Locations** (page 38) by **Andraya Carson-Hruby** and **Vance Daniels** includes the authors' expert perspective on doing it right.

Ms. Carson-Hruby, cofounder and chief operating officer of KaiZen Medical Group, has over a decade of experience in operations and business advising. Mr. Daniels is a human resources advisor for G&A Partners, a leading national HR outsourcing and professional employer organization, and earned the designation of Senior Professional in Human Resources.

Finally, **Alan A. Ayers, MBA, MAcc** details an in-depth roundtable discussion with **Laurel Stoimenoff, PT, CHC**, chief executive officer of the Urgent Care Association of America, and **Steve Sellars, MBA**, chief executive officer of Premier Health about the emerging trend of primary care practices that offer walk-in appointments. The trio have a depth of experience that's unmatched in urgent care operations, so their perspectives are worth noting. You can read **Walk-In Primary Care: What Does It Mean for Urgent Care?** on page 17. Mr. Ayers is vice president of strategic initiatives for Practice Velocity, LLC and is practice management editor of *JUCM*.

Also in this issue:

Sean McNeeley, MD and **Glenn Harnett, MD** bring an urgent care provider's eye to recently published articles on using an EEG-based biomarker in adults who've sustained a head injury; the relative merits of plain films vs chest CT in patients who've experienced blunt chest trauma; whether antibiotics are truly necessary after I&D of skin abscesses; and what pain management option is the right one for patients with corneal abrasions. Abstracts in Urgent Care can be found on page 27.

As always, we're fortunate to also bring you the perspectives of **David Stern, MD, CPC** in Revenue Cycle Management (page 40). This month, Dr. Stern offers his annual preview of urgent care-relevant coding changes in ICD-10-CM. Miss it, and you will (literally) be the poorer for it! ■

CONTINUING MEDICAL EDUCATION

Release Date: September 1, 2017
Expiration Date: August 31, 2018

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

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CONTINUING MEDICAL EDUCATION

***JUCM* CME subscribers can submit responses for CME credit at www.jucm.com/cme/. Quiz questions are featured below for your convenience. This issue is approved for up to *3 AMA PRA Category 1 Credits*™. Credits may be claimed for 1 year from the date of this issue.**

Urgent Care Evaluation for Snakebite Envenomation (p. 11)

1. **In which part of the United States do most snakebites occur?**
   a. Northern
   b. Western
   c. Eastern
   d. Southern
   e. Northeastern

2. **Arterial tourniquets and incision and suction are indicated to prevent complications from envenomation.**
   a. True
   b. False

3. **Which of the following signs and symptoms may occur after a snakebite?**
   a. Local tissue injury
   b. Hematologic abnormality
   c. A sense of impending doom
   d. Nausea and vomiting
   e. All of the above

Walk-In Primary Care: What Does It Mean for Urgent Care? (p. 17)

1. **According to the article, which of the following comments are reflective of many primary care providers' attitudes and opinions toward urgent care?**
   a. Urgent care can assure access for a PCP's patients during nights, weekends, and holidays when the PCP office is closed
   b. Urgent care can be a tremendous source of referrals to PCPs, as patients with developing or chronic conditions need a medical home
   c. Urgent care is episodic in nature and thus leads to chronic health conditions being unmanaged
   d. Primary care patients who come to appreciate urgent care's convenience and service are prone to choose urgent care going forward, over their PCP
   e. All of the above

2. **According to the article, which of the following trends are occurring in regard to urgent care and primary care?**
   a. Gatekeeper HMO models require patients first go to their PCP. Preauthorization and/or referral may be required from the PCP before going to another provider, including urgent care
   b. As PCPs have combined into larger groups, they've been able to offer extended hours and walk-in appointments, reducing dependence on urgent care for "after-hours" services
   c. In many health plans, a primary care or office visit copay is less than that of urgent care, incentivizing consumers to use their PCP first, especially if they have a high deductible
   d. Staffing to scheduled appointments vs the ebb/flow of a walk-in model, medical office space as opposed to retail rents, and less need to advertise, means PCPs have lower operating costs than urgent care
   e. All of the above

3. **According to the article's experts, urgent care centers can differentiate themselves from primary care by doing which of the following?**
   a. Emphasizing to consumers that urgent care is a "one-stop shop" that can meet all of their needs related to a medical episode (ie, doctor's visit, x-ray, lab, pharmacy)
   b. Anticipating consumer expectations and staying ahead of competing options in providing an outstanding patient experience
   c. Integrating telemedicine in response to consumer demand
   d. Partnering with a health system, enabling urgent care to better complement primary care vs directly competing
   e. All of the above

Case Report: Intermittent Abdominal Pain and Vomiting in a Teenager: One More Urgent Cause to Consider (p. 35)

1. **Which of the following causes of abdominal pain in children may cause intermittent pain and vomiting?**
   a. Intussusception
   b. Malrotation with midgut volvulus
   c. Adhesions with intestinal/bowel obstruction
   d. Superior mesenteric artery (SMA) syndrome
   e. All of the above

2. **What is SMA syndrome?**
   a. A congenitally narrow SMA
   b. Compression of the transverse portion of the duodenum between the aorta and the SMA
   c. Acute occlusion of the SMA
   d. Perforation of the SMA
   e. Absence of an SMA

3. **What is the preferred initial therapy for SMA syndrome?**
   a. Surgery
   b. Medical management for 6 weeks
   c. Weight loss
   d. Beta blockers
   e. Alpha blockers

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UCAOA Membership: Seize the Opportunities and Resources

LAUREL STOIMENOFF, PT, CHC

In a time of change and uncertainty, healthcare leaders are taking advantage of all available resources to help them navigate the complexities of the evolving landscape. Urgent care clinicians, managers, and vendors are looking to improve performance and differentiate their organizations from the competition.

The Urgent Care Association of America is the established voice of the urgent care industry, actively advocating for clinicians and centers at the state and national level, while providing thought leadership to media, the public, and healthcare colleagues. One simple way to rise up in the industry is by joining UCAOA and optimizing all the member benefits offered.

Why Choose UCAOA?

What sets UCAOA apart from other healthcare organizations is the specific focus on the urgent care industry in all educational programs, professional opportunities, business networks, educational programs, and management resources. As host to two of the most comprehensive and well-attended urgent care conferences each year, UCAOA brings together industry leaders to share research and brainstorm with colleagues on how to advance the industry, as well as the performance of the individual center.

UCAOA helps urgent care professionals stay up-to-date on industry trends and best practices, connect with colleagues and thought leaders, reach key decision-makers, and strengthen their bottom lines. UCAOA continually creates exclusive resources and opportunities to meet the specific needs of the on-demand medical practice.

For Clinicians

Clinician members have access to extensive CME opportunities and education programs—which include both in-person events and online courses to ensure accessibility for any schedule. Each is designed by both urgent care and specialty leaders for urgent care professionals, providing unique insights that help elevate skills and advance your career.

For Centers

Urgent care center members can learn how to improve negotiations and contracts with payers through a growing library of data and best practices, found on the Payer Relations page of the UCAOA website. Members can review tips on how to demonstrate the value of urgent care to payers. In fact, many payers are calling on centers to achieve urgent care-specific accreditation or certification.

For Practice Managers

Practice manager members can improve their recruitment and retention efforts with a discounted rate for posting job opportunities on the urgent care-specific Job Center. In addition, practice managers can utilize a growing number of free or discounted resources that provide instant assistance in areas such as marketing and staffing. Look for the Policy of the Month and *UC Prac*Toids* to enhance your center's performance and stay current with the mercurial state of healthcare.

For Vendors/Suppliers

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These are just *a few* of the benefits enjoyed by UCAOA members. For a complete list, please visit the UCAOA website's Members section: ucaoa.org/benefits. We cannot advocate and advance our important agenda without your support. We do *our* work, so you can focus on *yours*! ■

Laurel Stoimenoff, PT, CHC, is Chief Executive Officer of the Urgent Care Association of America.

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See **CME Quiz Questions** on page 7.

Urgent Care Evaluation for Snakebite Envenomation

Urgent message: Snakebite envenomation is relatively rare, but immediate action upon presentation to the urgent care center—including quick and accurate identification, appropriate care, and sound decisions regarding transfer to the ED—maximizes the chance for optimal outcomes.

ANDREW VANG, DO

Introduction

Snake venom poisoning is a complex medical emergency that is seen infrequently, but when encountered requires rapid recognition and urgent management. The following discussion will focus on appropriately identifying snakebites from indigenous venomous species in North America, crotalid and elapid snakes, initiating urgent management prior to the emergency department transfer.

Epidemiology

In the United States, approximately 45,000 snakebites occur annually, mostly in the southern United States, and typically between May and September when snakes are most active and humans participate in increased outdoor activities.[1-3] The American Association of Poison Control Centers estimates that 7,000-8,000 people are bitten by venomous snakes in the United States annually, including 5-6 fatalities.[4,5] According to the CDC WONDER database, a total of 78 venomous snake fatalities occurred between 1991 and 2007 in the southern U.S., followed by 28 fatalities in the West.

The most commonly encountered venomous species in North America are the pit vipers (Crotalinae subfamily of Viperidae), coral snakes (Elapidae family), and sea snakes (Hydrophidae). Poisonous snakes have been identified in every state except Alaska, Maine, and Hawaii.[1-3] The pit vipers include rattlesnakes, cottonmouths, and copperheads. The coral snakes include the eastern coral snake, Texas coral snake, and the Arizona coral snake. Most deaths occur in white males, children, the elderly, and victims to whom antivenin is not given, delayed, or administered in insufficient quantities.[5-6] Zoo personnel and herpetologists are also at higher risk for bites.[2,3]

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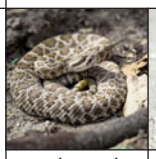
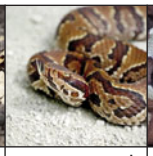
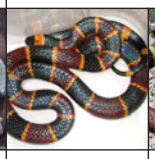
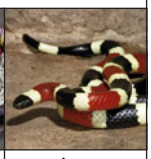
Andrew Yang, DO, is an Emergency Medicine Resident, PGY-II, at Adena Regional Medical Center. The author has no relevant financial relationships with any commercial interests.

Table 1. Pit Vipers vs Coral Snakes—A Comparison

	Pit vipers			Coral snakes		
Varieties	 Rattle snake	 Cottonmouth	 Copperhead	 Eastern coral snake	 Texas coral snake	 Arizona coral snake
Physical characteristics	• Pit between each eye and nostril • Triangular-shaped head • Elliptical slit pupils • Two curved fangs folded against the roof of the mouth, with at least three pairs of replacement fangs behind each • Single row of subcaudal plates on the underside, caudal to the anal plate			• Smaller than pit vipers • Colorful, with red, yellow, and black band • Black snouts • Round pupils • To distinguish from harmless snakes: "Red on yellow will kill a fellow; red on black, venom lack"		
Toxins	Hemotoxic			Neurotoxic		
Envenomation signs and symptoms	• Local pain • Swelling • Ecchymosis • Tachycardia • Paresthesias • Vomiting • Confusion • Perioral swelling/paresthesia • Metallic/rubbery taste in the mouth • Muscle fasciculations • Respiratory distress • Anaphylaxis • Consumptive coagulopathy			• Minimal local reactions • Tremors • Marked salivation • Altered sensorium • Systemic symptoms— paresthesias, weakness, ptosis, dysphagia, hyporeflexia, respiratory depression • Seizures		

Making the Diagnosis

History

The first step in evaluation is to establish whether a bite is from a snake, another animal, or is not a bite at all (often patients with a MRSA infection will state that they have a skin lesion from a bite wound). Fortunately, most patients will provide a history suspicious for a potential snakebite, such as walking through a field or, if we are lucky, they will actually report seeing a snake. As stated previously, the majority of reported snakebites in the U.S. occur in the southern and western regions. Asking about occupation can also be a big clue; zoo workers, amateur snake collectors, and herpetologists are at higher risk.[2,3] Historically, males, especially when alcohol or mind-altering recreational drug use is involved, have been known to be the majority of incidents (as well as animal-related fatalities).[4]

Since the toxins from these two species vary, the systemic signs and symptoms vary, as well.

Pit vipers (rattlesnakes, cottonmouths, and copperheads) have venom which is hemotoxic, with symptoms that may include local pain, swelling, ecchymosis, and systemic symptoms of tachycardia, paresthesias,vomiting, and confusion.

Coral snakes (eastern coral snake, Texas coral snake, and the Arizona coral snake), have venom which is neurotoxic, with less severe local reaction but systemic symptoms which can include paresthesias, weakness, ptosis, dysphagia, hyporeflexia and respiratory depression.

Physical Exam

If a positive identification is not possible. the diagnosis of snake envenomation involves physical findings consistent with snakebite plus evidence of tissue injury which can manifest as local tissue injury, hematologic abnormality, or systemic effects. The most common

Table 2. Do's and Don'ts of Snakebites

The *Do's* of Snakebites	**Do secure safety** • Following a bite, the victim should be moved to a safe distance and from harm • If the snake has been captured, place in a canvas bag • Keep the patient warm. Rest is also important **Do support ABCs** • Focus initially on supporting airway, breathing, and circulation. Establish an IV on the contralateral side and consider supplemental oxygen administration **Do initiate pretreatment** • Remove rings, watches, and constrictive clothing • Immobilize the affected extremity in a functional position below the level of the heart • With severe pain, consider acetaminophen or opiates, as opposed to NSAIDs or aspirin due to potential hematologic effects from crotaline snake bites[3,9] • Update tetanus prophylaxis • Wash with soap and water **Do early transport** • Symptoms may be delayed, and many patients will require prolonged observation and possibly antivenom
The *Don'ts* of Snakebites	**Do NOT tourniquet extremity** • There is little support for arterial tourniquets due to risk of complications with limb ischemia – Instead, place a constriction band (ie, a broad, flat band applied to occlude superficial veins and lymphatic glands). This technique has been shown to delay systemic absorption of venom[8] **Do NOT perform incision and suction** **Do NOT use cryotherapy** **Do NOT use electric-shock therapy[2,3]** **Typically, antibiotic therapy is not necessary**

reaction to a snakebite is a sense of impending doom, with other early symptoms including nausea, vomiting, and weakness. Systemic effects may include tachycardia, tachypnea, hypotension, and altered mental status. It may be difficult initially to differentiate these systemic manifestations from autonomic reactions related to the terror and impending doom.

Crotaline snake venom has several enzymatic properties that contribute to the venom's deleterious effects on the body. These proteins cause damage to the vascular endothelium and cell membranes, leading to edema, erythema, or ecchymosis.

Immediately after the bite, physical manifestations may only include two small punctures, but pain will soon follow. Within 60 minutes, edema as well as erythema emerges both proximal and distal to the bite site. Over the next several hours, ecchymosis, lymphangitis, or hemorrhagic bullae may develop—and, in some severe cases, edema can involve an entire limb, causing a compartment syndrome.

Some specific systemic effects to crotaline envenomation are variable, but include perioral swelling/paresthesia, a metallic or rubbery taste in the mouth, muscle fasciculations, respiratory distress, anaphylaxis, and consumptive coagulopathy. The absence of any of these manifestations for a period of over 8 to 12 hours indicates a "dry bite."

Coral snake venom is unique because the major component is neurotoxic and typically does not cause local injury. A coral snakebite may cause little to no pain but may cause tremors, marked salivation, as well as altered sensorium. The neurologic signs are usually cranial nerve palsies such as ptosis, dysarthria, dysphagia, dyspnea, and seizures. Similarly, the onset of clinical manifestations may be delayed up to 12 hours[3].

Other labs and tests can be helpful in diagnosis of a snake envenomation but may be outside the scope and resources of some urgent care centers. Quick recognition and early transport to a definitive care medical facility is imperative to the recovery of the victim.

Diagnosis

The confirmation of a snakebite is based on the presence of fang marks and a consistent history. The first step will be differentiating a venomous snakebite from a nonvenomous snakebite.

The easiest method is positive identification of the snake through physical description of a sighting, or a physical sample (alive, dead, or parts and pieces). Note that recently killed or decapitated snakes retain their bite reflex for several minutes after death of the snake; therefore, capture is not as important as safety. With recent technology, taking a photograph of a snake with camera phones may be a better means of identification rather than capture.[2,3,6] Interestingly, even with correct iden-

tification of the venomous snake, about 25% of all pit viper bites and 50% of all coral snakebites do *not* result in envenomations; this is referred to as a "dry bite." Therefore, clinical manifestations of envenomation may not become apparent; this highlights the importance of proper identification and, eventually, observation.[2,3,7]

Pit vipers (crotalids) have distinguishing features to help identify them from nonvenomous snakes; one is in the name, which is the heat-sensitive foramen (pit) between each eye and nostril. These pits have heat receptors that guide the direction of the strike by sensing the location and presence of warm-blooded prey or predators. Other features include the triangular-shaped head and elliptical slit pupils. If one is able to take a closer look at the snake, the two curved fangs are folded against the roof of the mouth with at least three pairs of replacement fangs behind each. On the underside, there is a single row of subcaudal plates caudal to the anal plate.[2,3]

Coral snakes (elapids) are typically smaller and more colorful with a combination of red, yellow, and black bands. Typically, the coral snakes in the U.S. will possess black snouts and round pupils[3]. A number of harmless snakes in the United States can mimic the coral snake, which has given rise to a rhyme "red on yellow will kill a fellow; red on black, venom lack."

See **Table 1** for an overview of the differences between pit vipers and coral snakes.

Clinical Features

Prehospital/Urgent Care Management

The primary focus in the urgent care setting will be providing important first aid measures to assist and not harm the victim's chances of recovery. This can be simply organized in a list of d do's and don'ts (**Table 2**).

Indications for Transfer

Indications for transfer from the urgent care setting include the following:

- With a confirmed recent bite by a poisonous snake, patients should be transferred to the emergency department for observation and consideration of antivenom.
- Patients with systemic symptoms should be considered for emergent transfer per EMS.
- With diagnostic uncertainty, consider transfer for observation and further evaluation.
- Prior to transfer it is important to document:
  1. Time of snakebite
  2. Circumferential measurements at the site of the envenomation
  3. Demarcation of the swelling and erythema with a marker (to monitor progression)[3]

Expected Emergency Department Treatment

The mainstay of treatment for all venomous snakebites includes continuous aggressive supportive care, as well as consideration of antivenom. Often, the poison center will be contacted, or consultation with a physician experienced in bites of venomous snakes will be arranged. If the patient remains hemodynamically stable with minimal symptoms, they will likely be observed for 8 hours and then discharged.

For each venomous snake, there is a corresponding antivenin. Crotalidae Polyvalent Immune Fab (FabAV) is used in the United States for crotaline envenomations.[3] A unified treatment algorithm for crotaline snakebites was established in 2011.[10] Unfortunately, the North American coral snake antivenin has been discontinued since 2008; therefore, coral snakebite victims should be admitted for 24–48 hours of observation due to delayed symptoms of envenomation which are not easily reversible.

Conclusion

Snakebite envenomation may have life-threatening consequences, but is simplified by proper identification and appropriate initial management, including removal of constricting objects and clothing, immobilization, and consideration of transfer. Avoid tourniquets, incision and suction, cryotherapy, or electric shock. ■

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Walk-In Primary Care: What Does It Mean for Urgent Care?

Urgent message: As many primary care providers expand their hours and offer walk-in service, the lines between urgent care and primary care become blurred. To remain competitive, urgent care operators will need to more clearly define their value to patient and payers, increase the acuity of services offered to reduce duplication, and become more innovative in their service delivery and partnerships.

ALAN A. AYERS, MBA, MAcc

Introduction

For years, many primary care physicians (PCPs) have looked at urgent care with skepticism. While they realize that urgent care can be a tremendous source of primary care referrals and that urgent care can assure access for their patents during weekends, evenings, and holidays when the PCP office is closed, the looming fear (whether rational or not) has been that primary care patients who try urgent care would not return to their PCP. Moreover, in academic realms, there is concern about the "episodic nature" of urgent care leading to chronic health problems being unmanaged.

Within primary care, we have seen the consolidation of independent physicians into large practices (including those controlled by health systems and multispecialty groups). When combined with the primary care medical home model (PCMH), in which the PCP becomes the patient's provider of first choice, and gatekeeper HMOs which often require the PCP's pre-authorization and referral to use other providers (including urgent care), we have seen patients become more dependent upon their primary care physicians.

Larger PCP groups with a captive base of patients have enabled PCPs to extend their hours and offer walk-in service. The issue for urgent care is that PCPs who once depended on urgent care for after-hours access now compete against urgent care during those hours. PCPs' offices tend to have lower costs than an urgent care center because they're located in medical office buildings vs prime retail, scheduled appointments are more predictable than the ebb-and-flow of a walk-in model, and PCPs incur significantly lower marketing costs than urgent care. Because PCP office visits typically cost less than a visit to urgent care—and more patients are financially responsible for their own urgent care visits due to rising deductibles—the risk for urgent care is that walk-in primary care will offer a more convenient, cheaper

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Alan A. Ayers, MBA, MAcc is Vice President of Strategic Initiatives for Practice Velocity, LLC and is Practice Management Editor of *The Journal of Urgent Care Medicine*. The author has no relevant financial relationships with any commercial interests. **Steve Sellars, MBA** receives salary from and has ownership interest in Premier Health, and the CME Program has determined there is no conflict of interest. **Laurel Stoimenoff, PT, CHC** receives salary from the Urgent Care Association of America, and the CME Program has determined there is no conflict of interest.

alternative to urgent care, thus threatening urgent care volumes in the future.

In this discussion, panelists Laurel Stoimenoff and Steve Sellars discuss the differences between walk-in primary care and urgent care and the ways urgent care continues to evolve and differentiate itself, as well as the payer and patient implications.

At the end of the day, urgent care must rise in the acuity of services it offers, focusing on the true episodic incidents that are beyond the capabilities of the primary care practice. This requires that urgent care prove its value proposition to health insurers, to be appropriately reimbursed for the level of services delivered in the urgent care.

Panelists

Laurel Stoimenoff, PT, CHC is chief executive officer of the Urgent Care Association of America. She has served as chair of the Urgent Care Foundation, as a consultant to leading hospital systems, and as the head operations executive for a multi-unit urgent care footprint. Steve Sellars, MBA, is chief executive officer of Premier Health, which operates over 40 urgent care centers with multiple health system partners around the country. He has served as president and as a board director of the Urgent Care Association of America.

Moderator

Alan A. Ayers, MBA, MAcc is vice president of Strategic Initiatives for Practice Velocity, LLC and is practice management editor of *JUCM*.

Ayers: What do you see as the difference between walk-in primary care and urgent care?

Sellars: Primary care is classified as a broad spectrum of preventative and curative care that seeks to manage patients' health over an extended period of time. Primary care physicians have often been described as the "gatekeepers" of medicine serving as a conduit through which a patient can access a wide variety of medical services. In a population health model, it's believed the increased continuity and integration of care that results will lead to a higher level of wellness and better outcomes in cases where disease management is the focus of care.

Stoimenoff: The walk-in primary care center is a convenient way to care for members of a primary care practice, where they are responsible for managing chronic illnesses and also ensuring that all the wellness services and screens are being addressed. While there may be some overlap in the types of care being provided for walk-in patients, the patient-centered medical home model must still cast a wider net in every encounter, which may naturally result in more referrals outside of its four walls and fewer efficiencies (imaging, lab, etc.).

Sellars: Urgent care centers are generally looked upon as medical clinics with expanded hours outfitted with the equipment necessary to diagnose and treat non life- and limb-threatening illnesses and injuries that are episodic in nature. Urgent care centers have onsite radiology and laboratory services and operate in a location distinct from a freestanding or hospital-based emergency department. Care is rendered under the medical direction of a physician or advanced practice clinician on an unscheduled, walk-in basis. Hours of operation include evenings, weekends, and holidays. Urgent care centers have grown in popularity due to their retail approach focusing on meeting non-emergency, on-demand needs of patients. In the absence of primary care walk-in clinics and other relatively new retail medicine options, many patients had no choice but to make an appointment with a PCP. Even with a growing number of primary care clinics that offer walk-in service, in many cases it can take up to 3 weeks to get in to see a provider, depending on the market. Too often, those patients end up in the emergency department.

Stoimenoff: I don't believe anyone is better prepared to provide "acute primary care" services to patients than the urgent care center. Care of episodic illnesses and injuries is their focus and their model is built for it, including the services they can provide onsite, such as radiography, and the efficiencies in throughput and care. The same-day, one-stop management of non life- or limb-threatening illnesses is important and essential to healthy communities.

Ayers: As more primary physicians combine into large groups and extend services to include walk-in hours, x-ray, and procedures, how does urgent care continue to differentiate itself from these competing options?

Sellars: The fact is the urgent care industry has moved into a hyper-competitive phase. With more primary care physicians/groups/health systems offering walk-in care,

extended hours, same-day appointments, and a more comprehensive scope of services, urgent care operators are going to have to work even harder to get new patients and ward off leakage of those they already have. We respond to that by continuing to do what urgent care does best, and when possible, find ways do it even better. Convenience and access have always been key differentiators in the urgent care industry, but there are other advantages our on-demand model of care offers that many overlook. For instance, unlike many stand-alone primary care clinics and groups, urgent care centers are usually "one-stop" shops. Everything that's needed to treat a non-emergency condition without an appointment is available under one roof. That's good news because studies suggest that consumers are willing to drive further for a one-stop shop (with x-rays, labs, prescriptions on-site). Studies also tell us that consumers prefer convenience over credentials and provider continuity, cutting edge technology, fast door-to-door times, and a hassle-free experience that includes upfront pricing for patients with high-deductible insurance plans.

"What may appear to be a threat on the surface can also be an opportunity" – Laurel Stoimenoff

At the end of the day, urgent care centers must continue to emphasize competitive advantages like these without forgetting what made urgent care the fastest growing segment of healthcare. That means beginning with convenient, highly-visible locations, extended hours that match market needs, and a broad scope of services that may include occupational medicine or prescription dispensing. Throw in good word-of-mouth (patient loyalty) along with a healthy dose of marketing and the odds of success go even higher.

Stoimenoff: With more on-demand healthcare options for patients, the focus on customer care and an excellent service are more important than ever. Millennials and other consumers mandate convenience. This means using technology and creating an exceptional patient experience, including follow-up on their outcomes. To succeed, urgent care centers must be one step ahead when it comes to exceeding expectations. One great opportunity for our industry is telemedicine. Only 8% of respondents in UCAOA's most recent Benchmarking Report indicated that they add integrated telemedicine into their urgent care centers, yet a 2017 consumer survey conducted by American Well found that 50 million consumers would switch providers to one that provided telehealth as an option. This is an opportunity that fits nicely into the urgent care center's wheelhouse.

Sellars: Like Premier Health, an increasing number of urgent care centers and retail clinics are choosing to participate in joint ventures (JV) with health systems and other institutions offering primary care. One can argue the pros and cons, but a JV model can further differentiate the more traditional, stand-alone approach to urgent care. For starters, it makes primary care follow-ups more convenient. In some cases, we've co-located primary care clinics and UCCs to streamline the cross-referral process. Primary care practice managers find JVs attractive because they can accelerate time required for newer PCPs to build their panels. Added convenience, greater patient satisfaction, improved brand recognition resulting from cross promotion, and blended marketing can combine to be powerful distinguishers for JV urgent care operators.

Ayers: Do you see this convergence of on-demand primary care and urgent care as a threat or opportunity for urgent care providers?

Sellars: Both, depending on how adaptive an urgent care operator chooses to be in a changing, hypercompetitive urgent care environment. Having said that, there's no doubt primary care clinics that are able to charge lower copays than urgent care centers pose a very real threat. In a world where increased out-of-pocket costs and high-deductible insurance plans are the new reality, cost is going to become an even more important piece of the competitive puzzle. Urgent care is a retail model and in order to compete with any other on-demand option, it must be an affordable, as well as convenient, option.

Stoimenoff: On-demand primary care is just one competitive model emerging, and what may appear to be a threat on the surface can also be an opportunity. I would encourage urgent care operators to engage in conversations with both PCPs, local hospitals, and EDs about collaborative opportunities. Urgent care centers can support

ED diversion strategies and community education efforts while also providing services when the PCP is not available.

Sellars: While not immune, I feel JV urgent care models like those Premier Health specializes in are at less risk because of the patient base and/or volume resulting from the referral networks we create with our health system partners. I believe, in the patient's mind, the value created by these streamlined networks of care help offset the cost factor. This does not eliminate the need to be mindful of our competitors' pricing strategies and to work with others in the industry to counter it by educating payers and, where possible, influencing legislation.

"One trend that's already begun to take hold, and I believe will continue, is the increased utilization of advanced practice clinicians" – Steve Sellars

Ayers: How would you recommend that urgent care providers respond when losing patients to these competing options?

Stoimenoff: Urgent care operators need to adapt to the changes in the marketplace. Respond proactively vs reactively. Collaborate with other practices and groups to extend the reach. Develop attractive cash payment programs for those whose are uninsured or have high-deductible plans. Go above and beyond with customer care. Create patient loyalty programs and monitor patient feedback closely. And please, stay involved with UCAOA as we continue to advocate for new payment opportunities and ensure a favorable regulatory and policy environment so urgent care centers can prosper as they provide this important service to their communities.

Sellars: There is no one-size-fits-all solution. Urgent care grew out of an entrepreneurial movement to meet the consumer's need for on-demand, non-emergency medical care. I believe urgent care operators must continue doing the same things, while evolving to meet the needs of a changing on-demand marketplace. Many urgent care operators are meeting that challenge by expanding their scope of services. Instead of worrying about primary care clinics that have begun to offer walk-in visits, they've started doing primary care. Others are adding allergy testing, travel medicine, medication dispensing, and telemedicine. The difference is they're offering these new services with the same retail approach that made them successful as a stand-alone urgent care. I would also recommend considering the possibility of joint ventures or any other strategies that can lead to an increase in referrals. As for joint ventures, they can be a complex model, but after doing it for nearly two decades at Premier Health, I can tell you when done right, it works for all involved.

Ayers: Any other comments?

Sellars: As primary care practices expand hours, add services, and deploy other provider-intensive tactics to be more competitive in the on-demand healthcare space, I believe UCCs can expect to see growing staffing challenges. We're all aware of the shortage of physicians and the uphill battle of attracting doctors to urgent care when they're being offered tuition reimbursement, sign-on bonuses, and J1 visa sponsorship from health systems. The urgent care industry is going to have to get creative in order to maintain the provider levels necessary to compete. One trend that's already begun to take hold, and I believe will continue, is the increased utilization of advanced practice clinicians. While no substitute for the physician, physician assistants and nurse practitioners have proven their worth in the urgent care setting. They are an effective and economical response to the need for clinicians that can take the lead in both administrative and patient care. Whether you agree or disagree, if you're going to remain a competitive urgent care operator, odds are good that it's something you're going to consider at some point.

Stoimenoff: Successful urgent care operators are thinking beyond *access* as their value proposition. We know that urgent care centers are complex business units. It is so easy to be in the business that it seems as though there is no time to raise your head up to think strategically. UCAOA is committed to supporting strategic thinking and the success of on-demand medical care. We are confident that together we will ensure that urgent care centers remain poised to excel. ■

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How a two-day training shattered my notions about company culture

Mika Doyle, Practice Velocity

As a classic introvert, I was scared to go to Heart of a Leader training. Unlike you extroverts, social interactions drain me of energy even though I enjoy being around people. So when I heard I'd be going to a two-day intensive training that somehow involved screaming, crying and other really overt expressions of emotion, I was, well, distressed.

For the uninitiated, Heart of a Leader is a two-day leadership training that aims to help participants get out of their comfort zones so they can start leading from their hearts instead of their heads. There are no lectures or PowerPoint presentations during this training. It's all group participation in a variety of high energy activities lead by Brandon Johnson, also known as The Positive Energy Guy.

I was skeptical of the whole process until the end of the first day – which had gone from 8 in the morning until past 10 at night – when the final activity ripped me straight out of my head and tossed me right into my heart.

I'd spent that day with a small group of my coworkers, watching them open up about their fears and listening to their stories about their families and life experiences. I went through the motions of all these activities, which were meant to push us all closer together, but I wasn't truly bonding with anyone. As always, my heart was shackled to my head.

But that last activity on the first day of training changed everything for me.

You see, I'm a bit old school when it comes to work. You go to work, leave your emotions at the door, do your job, go home. Simple, right? Ha. If only. Luckily, the leadership team at Practice Velocity, where I work, recognize that building a successful business is far more complicated than that because people are far more complicated than that. We're not automatons; we have complex thoughts and emotions. And with that complexity comes the challenge of building a company culture that people truly want to be a part of.

The key to building that culture at Practice Velocity? Trust. Trust that we all have the best intentions – for each other and for the company. But to build trust, you have to be willing to let down those walls. Allow yourself to be vulnerable. That's what Heart of a Leader training did for me. It shattered my old school notions of the workplace by showing me that emotions are a part of who we all are. We can't simply leave them at the door; we carry them with us no matter where we are. To deny our emotions – to deny our hearts – only serves to deepen the chasms between us and others. You can't build trust that way. And without trust, you simply can't build a positive company culture.

Practice Velocity isn't interested in my old school notion of work. They aren't in the business of hiring people who just show up, do their jobs and go home. Yes, they absolutely want skilled employees, but we all know skills are pretty easy to find. Finding the right kind of energy is what's so challenging. That's why Practice Velocity sends all of its employees through Heart of a Leader training.

It's a hefty investment, not just financially, but in time away from the office and from our families. But the investment has proven worthwhile because employees come out of it with a better understanding of how they directly contribute to Practice Velocity's culture. It's taken us from a traditional work culture to a pretty atypical work culture, and that's what makes us – every one of us at Practice Velocity – so extraordinary.

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Quality Improvement Report: Improving Telephone Follow-Up in an Urgent Care Setting

Urgent message: Follow-up after a patient visit is essential to the continuum of care and to the perception of customer service. Especially in the urgent care setting, where providers may have no ongoing relationship with a patient, the most basic office practices (eg, collecting accurate and accessible contact information) can seem deceptively simple but are of critical importance.

JIMMIE TOLER, MSN, NP-C, EMILY E. JOHNSON, PHD, and BARBARA J. EDLUND, PHD, ANP, BC

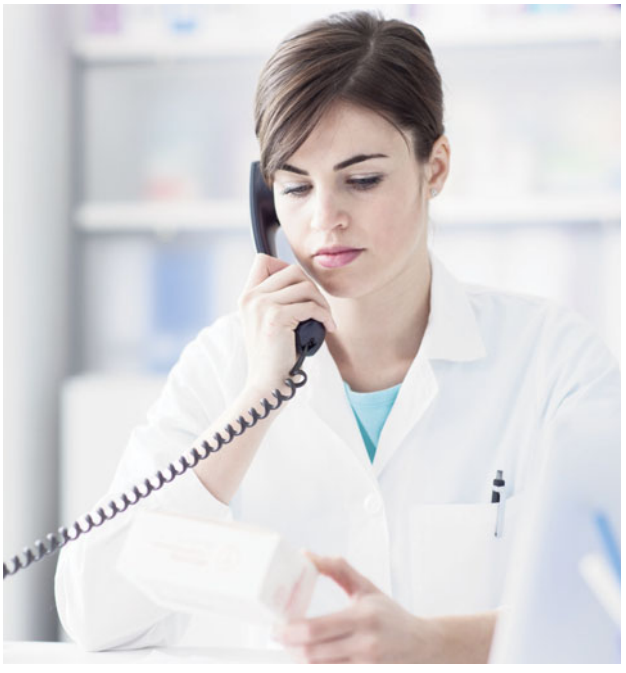
Introduction

Continuum of care is synonymous with appropriate care. In the urgent care environment, this continuum includes the ability to follow up by telephone after care has been rendered in the clinic environment. However, the ability to follow up is often hampered by inaccurate contact information. While this may be due to out-of-date phone numbers or illegible information provided by the patient, the importance of accurate contact information must be appreciated by the staff. This quality improvement project evaluated the impact of easily implemented clinic interventions designed to improve patient telephone follow-up rate.

With this in mind, we sought to answer a key question with profound clinical implications: Will patient and staff awareness of the importance of accurate contact information through education, posters, and changes in the intake form increase contact information accuracy and therefore telephone follow up rate?

Background

Discussions with management and staff of a locally owned and operated clinic were conducted in an effort to identify a process or procedure of concern. One consensus was concern regarding the ability to follow up with patients after treatment.



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This concern varied based upon the role of each staff member. Medical assistants who conducted a majority of these contact attempts expressed frustration due to the amount of time required to try to find alternative

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methods of contact. Management expressed concern over the correlation of follow-up and customer satisfaction. Providers recognized that the ability to follow up allows for more appropriate care and decreases liability.

An initial review of medical records demonstrated an inability to follow up due to inaccurate contact information in >5% of contact attempts. While this was actually less than the level perceived by staff members, all felt that improvement would be beneficial.

The next question was how best to improve follow-up with the resources at hand.

"Failure to follow up is a leading cause of malpractice. Timely follow-up by telephone may improve patient satisfaction and minimize claims and lawsuits."

"Healthcare" is a continuum provided at a variety of levels based on both real and perceived patient concerns. The urgent care setting typically addresses concerns that the patient believes warrant immediate evaluation and treatment, yet are not severe enough to require care at an emergency room. Patient expectations may not always be realistic. However, all patients rightfully expect quality care. Clinical quality includes the timely follow-up of findings, test results, and, when appropriate, referral to a higher-acuity facility.[1] Following up with patients by telecommunication has long been demonstrated to improve outcomes, as evidenced by everything from nurse-led systemic telephone follow-up which improved health-related quality of life for patients after myocardial infarction, to expediting primary care follow-up of patients after discharge from the emergency room.[2,3]

Failure to follow up is a leading cause of malpractice claims. Many legal firms exist solely as an extension of the current medical model, and they cast a broad net to filter for alleged wrongdoing and negligence. The urgent care setting is ripe for this "shotgun" approach, to include the following concerns: misdiagnosis, lack of supervision, failure to diagnose, and failure to monitor care. Timely follow-up by telephone may improve patient satisfaction, recognize a health status change, and minimize claims and lawsuits.

Purpose

The purpose of this quality improvement project was to improve the accuracy of patient contact information in order to increase the follow-up contact rate after being seen in the urgent care clinic.

Setting/Sample

This initiative was completed at a stand-alone urgent care clinic in the coastal southeastern United States. A majority of the patients treated reside in the local area, with many viewing the clinic and staff as their primary care. Many others utilized the urgent care on an as-needed basis and sought care only for acute concerns; this includes a transient group who were in the area (or passing through) on vacation. The sample included 1,235 patients seen in this urgent care clinic for a period of 2 months prior to interventions and 1,316 patients after implementation of the intervention. Patient ages varied from as young as 2 years old to octogenarians.

Framework

The Deming Model of the plan-do-check-act (PDCA) cycle is a well-known method for quality improvement.[4] This continuous process consisted of the following steps:

- **Plan:** A review of processes and chart audits was conducted in an effort to identify probable causes for inability to contact patients for telephone follow-up after treatment. The following were identified for interventions:
  1. Increase patient awareness of the importance of accurate contact information
  2. Edit the patient registration form, clarifying the area delineated for acquisition of this information
- **Do:** The project director (PD) created posters for the patient waiting area and exam rooms, emphasizing the importance of accurate contact information. The PD also edited the existing patient registration form to emphasize and provide appropriate space for the collection of contact information. With the review and approval of the clinic manager, the PD had a local printer produce the posters and registration forms.
- **Check:** Patient contact rates were compared pre- and postintervention.
- **Act:** Improvement in clinic operating procedures

is an ongoing process. Interventions found to benefit patient care will become standard operations, whereas processes that offer no clinical or administrative benefits will be reviewed for improvement or discontinuation.

"Any attempt to improve care delivery begins with recognizing the need or desire to provide a better service. This area for improvement was recognized by a discussion with management and staff."

Interventions

Interventions were directed toward staff and patients. First, a review of the form used to obtain patient information revealed the area designated for the patient to write their telephone number may have been insufficient to provide legible information. This area also was located in the middle of the form, midway through various demographic, employer, and health information. This negatively impacted collection of accurate information by minimizing the importance of this information to the patient. The intervention moved this portion of the form to the beginning of the document, with a slightly larger font and additional room for pen-and-ink input by the patient. This also engaged the patient input earlier during form completion, when patients may be more alert and focused. If other areas of the form are found to be inaccurate or illegible, these concerns may be corrected later by telephone as long as the contact information is accurate.

The second intervention was directed toward patient awareness of the importance of accurate contact data. The purpose of having accurate contact information may not be fully realized by the patient, or not viewed as important in the urgent care setting because patients may anticipate never returning to that provider. Patients who had previously utilized the services of the clinic may also have changed phone numbers (a more frequent occurrence in today's transient communications and technology environment).

Patient awareness posters were created to emphasize the importance of accurate follow-up information to address the following needs:

- Patient follow-up to evaluate response to treatment
- Review of laboratory results obtained during the initial visit
- Review of radiological findings which may not have been apparent during the initial reading or that become available after radiology over-read
- Treatment recommendations or changes to recommendations based on these additional results or response to interventions

These posters were developed by the PD and clinic staff, printed by a local printing company, and placed in the patient waiting area and exam rooms.

Staff education alerted the staff to these changes, and reinforced the importance of accurate contact information. Staff were encouraged to engage in discussion with patients to ensure this information was up to date. This discussion period was also an opportunity to ensure patients understood the impact of having accurate and up-to-date contact information.

Data Collection

A staff member attempts to contact patients approximately 48 to 72 hours after the patient was seen in the clinic. This contact is typically initiated by a medical support person, advanced practitioner, or physician based on the anticipated purpose of the follow-up. This follow-up is conducted by phone using the contact information on file within the electronic medical record demographic section. A summary of this contact is chronicled as an addendum to the original chart note. If patient follow-up was not completed, the reason for this failure is also noted in the addendum. Data were collected utilizing the information found within this addendum for each patient treated at the clinic for 60 days prior to and after interventions.

Data Analysis

Patient follow-up addenda were reviewed for each of the days prior to and after interventions for a period of 56 days. Not all patient encounters for each clinical day required follow-up; thus, some encounters were not included in the analysis. These encounter types included office visits for simple exams, immunizations, and labs. Patient encounters that involved patient care were reviewed for follow-up contact notes. Patient visits with inaccurate contact information were divided by total

Figure 1. Pre-Intervention: 5.18% Failed Attempts at Contact

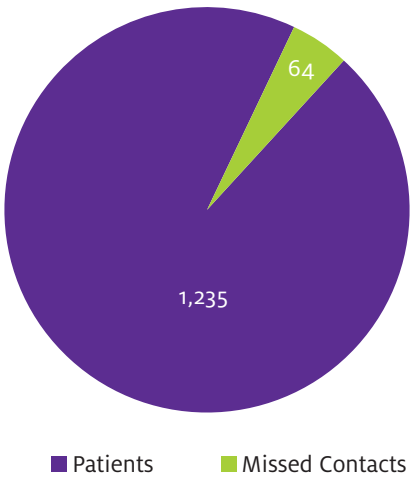
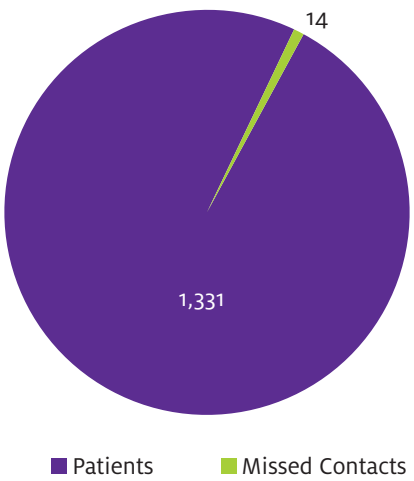


Figure 2. Postintervention: 1.13% Failed Attempts at Contact



patient visits to provide a percentage of patient follow-up attempts which were not able to be completed due to inaccurate contact information. This percentage of the pre-interventional contact failure rate was compared with the postinterventional rate, in order to evaluate impact of the intervention.

"Improving customer service and clinical care need not involve expensive interventions."

Results

A review of 1,235 applicable patient charts prior to interventions demonstrated a failure to follow up due to inaccurate contact information for 64 patients, or 5.18% (**Figure 1**). Postintervention data for 1,331 patients indicated a failure to follow up due to inaccurate contact information for 15 patients, or a 1.13% failure rate (**Figure 2**). A comparison of pre- and postintervention numbers of patients with inaccurate contact information indicated a decrease in follow-up failure rate of 4.05%, or an improvement in follow-up of 78.19%.

Discussion

The beginning of any attempt to improve care delivery is recognizing the need or desire to provide a better service. This area for improvement was recognized by a discussion with management and staff attempting to identify process concerns. Though the concern varied based upon clinic role, the issue was the same. A review was completed in order to identify a process by which to quantify the current status and impact of any interventions.

After the current patient follow-up rate was established, interventions were implemented which were anticipated to improve contact accuracy through a process of simple changes to the intake form, staff training, and patient education. A review of data was again completed; this demonstrated the effectiveness of these interventions.

Conclusion

An improvement process to provide better customer service and improve clinical care need not involve an expensive intervention implemented through a random control process. An open discussion with members of the staff is typically all that is needed to identify concerns. Attempts for improvement should be completed utilizing one of the numerous well-validated plans in order to better demonstrate changes. ■

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ABSTRACTS IN URGENT CARE

- Hope for Avoiding Head CT Radiation Exposure
- Imaging in Blunt Chest Trauma Injuries
- Post I&D Antibiotics for Small Abscesses
- Managing Pain in Corneal Abrasions

SEAN M. McNEELEY, MD and GLENN HARNETT, MD

Each month the College of Urgent Care Medicine (CUCM) provides a handful of abstracts from or related to urgent care practices or practitioners. Sean M. McNeeley, MD and Glenn Harnett, MD lead this effort.

Finding New Pathways that Protect Head Injury Patients

Key point: Using an EEG-based biomarker in adult patients has potential benefit.

Citation: Hanley D, Prichep LS, Bazarian J, et al. Emergency department triage of traumatic head injury using a brain electrical activity biomarker: a multisite prospective observational validation trial. *Acad Emerg Med*. 2017;24(5):617-627.

Prior studies estimate that traumatic head injury (TBI) accounts for over 2.5 million ED visits annually in the U.S., also revealing that ED visits for TBI have increased 29% from 2006 to 2010—a time when overall ED visits increased by <4%. This is presumably due to increased public awareness of concussions. Not included are an estimated 1.6 to 3.8 million patients annually who sustain sports-related TBI and do not seek emergency medical care. The vast majority (estimated to be as high as 90%) of head CTs performed on mild TBI (mTBI) patients are negative for clinically important brain injury. This observational, prospective, multisite validation trial published in *Academic Emergency Medicine* included 720 adult patients (age 18-85) admitted to the ED within 3 days of sustaining a closed head injury. Ninety-seven percent of trial participants had a Glasgow Coma Scale score of 15. Using a handheld BrainScope One device (FDA cleared as the Ahead 300) and disposable headset at the point of care, 5-10 minutes of electroencephalogram (EEG) from frontal and frontotemporal regions was acquired. An a priori-derived EEG-based classification algorithm (based on brain electrical activity developed from a large independent population) was applied prospectively to this validation population in order to predict whether or not the portable device would be highly accurate in detecting the likelihood of the patient having a brain injury visible on an adjudicated CT scan (CT+). Using a ternary classification output (likely CT+, equivocal, likely CT-), sensitivity of the device for detection of any traumatic brain injury visible on CT was 97.4% with an NPV of 98.2% and specificity of 38.7%. In contrast, the specificity of the New Orleans Criteria when applied to this population was only 8.6%. When the ternary classification was applied only to those patients with >1 mL of visible blood on CT (where risk related to false negatives is highest), the sensitivity increased to 98.6%. This low false negative rate, combined with specificity significantly higher than common clinical decision rules of the device, could allow for care pathways for mTBI patients that reduce the risks of head CT radiation exposure and allow for screening of mTBI patients in the urgent care setting. Further studies are planned in the pediatric population. ■

Sean M. McNeeley, MD, is an urgent care practitioner and Network Medical Director at University Hospitals Cleveland Medical Center, home of the first fellowship in urgent care medicine. Dr. McNeeley is a board member of UCAOA and CUCM. He also sits on the *JUCM* editorial board. **Glenn Harnett, MD,** is principal of the No Resistance Consulting Group in Mountain Brook, AL.

Assessing Imaging Options in Blunt Chest Trauma

Key point: Plain films may miss 2/3 of rib fractures.

Citation: Murphy CE 4th, Raja AS, Baumann BM, et al. Rib

fracture diagnosis in the panscan era. *Ann Emerg Med*. [Epub ahead of print May 27, 2017]

This brief trauma/research report in the *Annals of Emergency Medicine* prospectively compared 8,661 patients who had both a chest radiograph and chest CT after undergoing blunt trauma and presentation to 10 Level I trauma centers. The results revealed that 66.1% of rib fractures were identified on the CT chest only, not on the comparison chest radiograph. Patients with identified rib fractures had higher admission rates (88% vs 46%) and mortality (5.6% vs 2.7%) than patients without rib fracture. They also showed that patients with first or second rib fractures had higher mortality (7.4% vs 4.1%) and incidence of great vessel injury (2.8% vs 0.6%) than those patients with fractures of ribs 3-12. The authors did point out that isolated rib fracture does not add to mortality risk, and the incremental value of diagnosing minor thoracic injuries by chest CT remains unclear. ■

A Look at Outpatient Treatment of Skin Abscesses, Post I&D

Key point: Adding antibiotic after drainage may speed healing.

Citation: Daum RS, Miller LG, Immergluck L, et al. A placebo-controlled trial of antibiotics for smaller skin abscesses. *N Engl J Med*. 2017;376(26):2545-2555.

This multicenter, prospective, double-blind trial enrolled 786 adult and pediatric participants with skin abscess ≤5 cm in an outpatient setting. After abscess I&D, participants were randomly assigned to receive either clindamycin, TMP-SMX, or placebo for 10 days. The primary outcome was clinical cure 7–10 days after the end of treatment. Lack of clinical cure was defined as no resolution of signs or symptoms, inability to continue study drug due to adverse events within the first 48 hours, recurrence at the original site of infection, occurrence of a skin infection at a new body site, unplanned surgical intervention of the skin infection, or hospitalization related to the infection. Of note, abscess fluid was submitted for culture and MRSA was isolated from 50% of the participants. The clinical cure rate was essentially the same between the clindamycin and TMP-SMX (83% vs 82%) groups. The cure rate in both active groups was higher than those participants who received placebo following I&D (69%). This difference was statistically significant ($P<.001$ for both comparisons). A new lesion at a different body site or the use of a rescue medication were more common causes of treatment failure in the placebo group than in either treatment group. These findings indicate a clinical benefit for antibiotic therapy in addition to I&D alone in patients, particularly those with *S aureus* infection. This calls into question the perception (largely based on expert opinion or smaller, underpowered, and lower quality noninferiority trials) that clinical cure rates for skin abscesses do not improve with the addition of systemic antibiotics following I&D. ■

"There appears to be a clinical benefit for antibiotic therapy in addition to I&D, particularly in patients with S aureus infection. This calls into question the perception that cure rates for skin abscesses do not improve with the addition of systemic antibiotics following I&D."

Can We Help Diminish Pain from Corneal Abrasions?

Key point: Reconsider longer tetracaine use.

Citation: Waldman N, Winrow B, Densie I, et al. An observational study to determine whether routinely sending patients home with a 24-hour supply of topical tetracaine from the emergency department for simple corneal abrasion pain is potentially safe. *Ann Emerg Med*. [Epub ahead of print May 2, 2017]

The traditional approach to management of pain in corneal abrasions has been to administer topical anesthetic drops at the time of presentation and discharge patients with oral analgesics for pain control. Continued use of tetracaine postdischarge has been discouraged by traditional teaching due to concerns for masking the signs of potential corneal toxicity. The study published in the *Annals of Emergency Medicine* was conducted in an emergency department where a policy change allowed providers to prescribe 1% tetracaine drops for 24 hours to treat the pain associated with corneal abrasions. Outcomes (serious complications or uncommon adverse events) were compared to patients who did not receive tetracaine treatment. The study revealed no adverse events in the treatment group (0/459), which could be attributed to tetracaine. The results indicate that the limited use of tetracaine for pain control of simple corneal abrasions may be acceptable, but the authors caution that larger prospective studies are required to confirm its safety in a larger population. ■

INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 1

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@jucm.com*.

A 21-Year-Old Male with Foot Pain

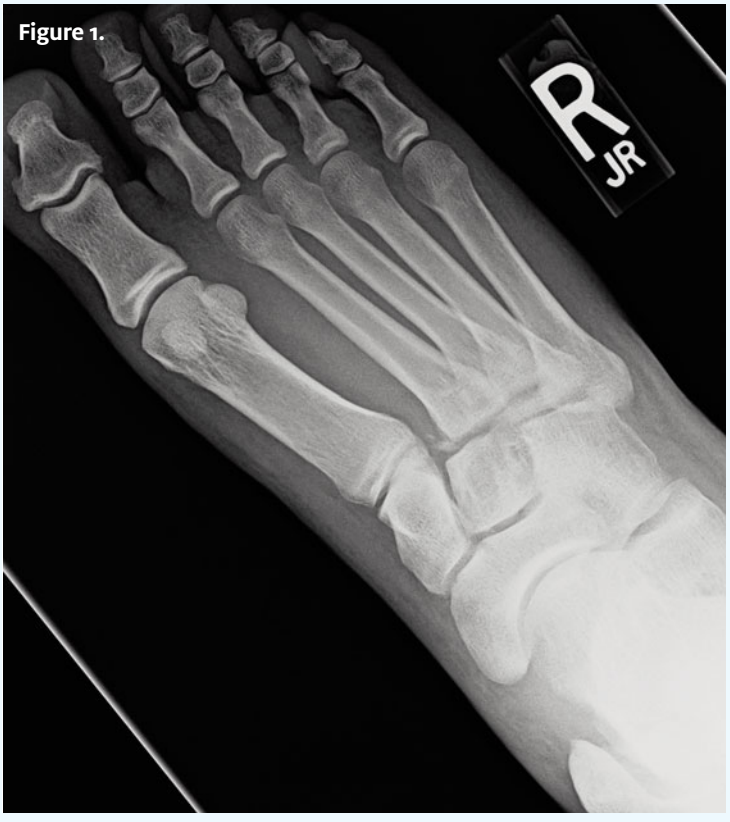


Figure 1.

Case

A 21-year-old male presents with pain after dropping a piece of furniture on his right foot. He is physically able to bear weight during the assessment, though his pain is evident and he is unsteady when shifting his weight to the injured foot.

View the image taken (**Figure 1**) and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.

THE RESOLUTION

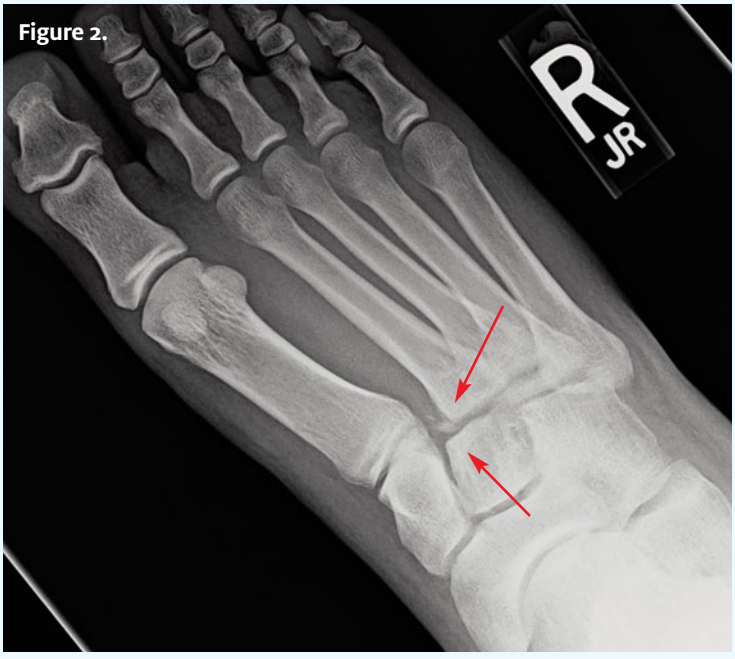


Figure 2.

Differential Diagnosis

- Compartment syndrome
- Cuboid fracture
- Lisfranc fracture dislocation
- Medial cuneiform fracture

Diagnosis

The patient sustained a Lisfranc fracture dislocation. The x-ray reveals misalignment of the second metatarsal tarsal joint with calcification fragments adjacent to the base of the second metatarsal.

Learnings

- Injuries result most commonly from a crush injury or motor vehicle accident
- Ligamentous injuries can occur without fracture or gross malalignment, but may result in instability on weightbearing. MRI should be considered even if x-rays are normal
- Appearance typically shows widening at the base of the 1st and 2nd metatarsals (or the more lateral proximal metatarsals) >2.5mm
- The most common type is homolateral, as in this case, in which all of the metatarsals are dislocated to the same side
- The "flake sign" (the small fracture fragment adjacent to base of the second metatarsal) is a classic sign for underlying Lisfranc injury
- To avoid missing a Lisfranc injury:
  - Obtain x-rays on all patients with foot pain and swelling
  - If a fracture is seen at the proximal metatarsal, suspect Lisfranc injury
  - If edema persists for 10 days after the injury, suspect Lisfranc injury

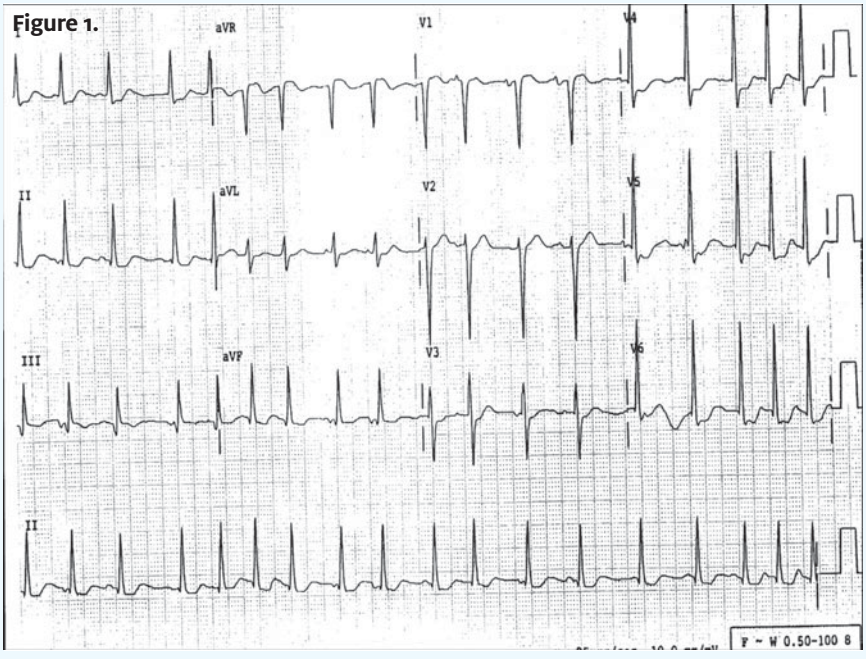
Pearls for Initial Management and Considerations for Transfer

- Early diagnosis is essential for maintenance of function
- Initial management in the urgent care setting includes immobilization and instructions for the patient to avoid weightbearing.
- The decision to treat Lisfranc fracture dislocations surgically vs nonsurgically is controversial
- Patients with a diagnosis of Lisfranc injury should be sent for immediate referral to the emergency department or orthopedist
- Disproportionate pain may be the sentinel indication of a Lisfranc injury. With a negative x-ray and concerning symptoms, splint 'as if' there were an injury, then ensure rapid follow up and consider advanced imaging

Acknowledgment: *Image courtesy of Teleradiology Specialists.*

A 73-Year-Old Man with a 2-Week History of Palpitations

Figure 1.



Case

The patient is a 73-year-old male smoker who complains that he has had intermittent palpitations for the past 2 weeks. He denies chest pain, diaphoresis, fever, or dizziness. He uses home oxygen, 2 L/min, but denies any new shortness of breath.

Upon exam, you find:

- **General:** Alert and oriented x 3
- **Lungs:** Scattered minimal wheezing, which is symmetric
- **Cardiovascular:** Regular and tachycardic without murmur, rub, or gallop
- **Abdomen:** Soft and nontender without rigidity, rebound, or guarding
- **Extremities:** No pain or swelling, pulses are 2+ and equal in all four extremities

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

THE RESOLUTION

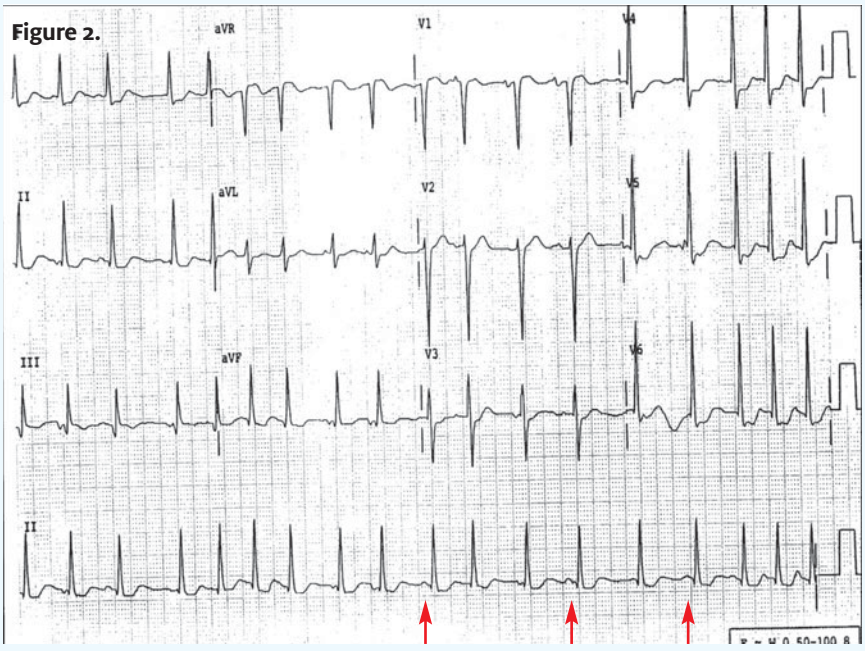


Figure 2.

Differential Diagnosis

- Supraventricular tachycardia
- Atrial fibrillation
- Multifocal atrial tachycardia
- Inferior STEMI

Diagnosis

The ECG revels an irregular rhythm, but it is sinus. Notice the different p wave morphology. There are some nonspecific ST changes, but no ST elevation concerning for an acute myocardial infarction. The r waves are prominent consistent with left ventricular hypertrophy (LVH). Q waves are present inferiorly, possibly indicating a prior MI. Arrows point to the "multifocal" p waves.

Learnings

- MAT is an atrial rhythm, and not ventricular.
- Complexes are narrow and irregular, but p waves are present, which would not be the case with atrial fibrillation.
- The ST segments are decreased in the anterior lateral leads (V4-6), but this is a nonspecific finding. Comparison to past ECGs and correlation with the patient's symptoms are important.
- MAT occurs commonly in patients with COPD, and is likely present in our patient, given his history of smoking and the scattered wheezing heard on lung auscultation. It may also occur in patients with coronary artery disease, valvular heart disease, pulmonary embolism, and sepsis.

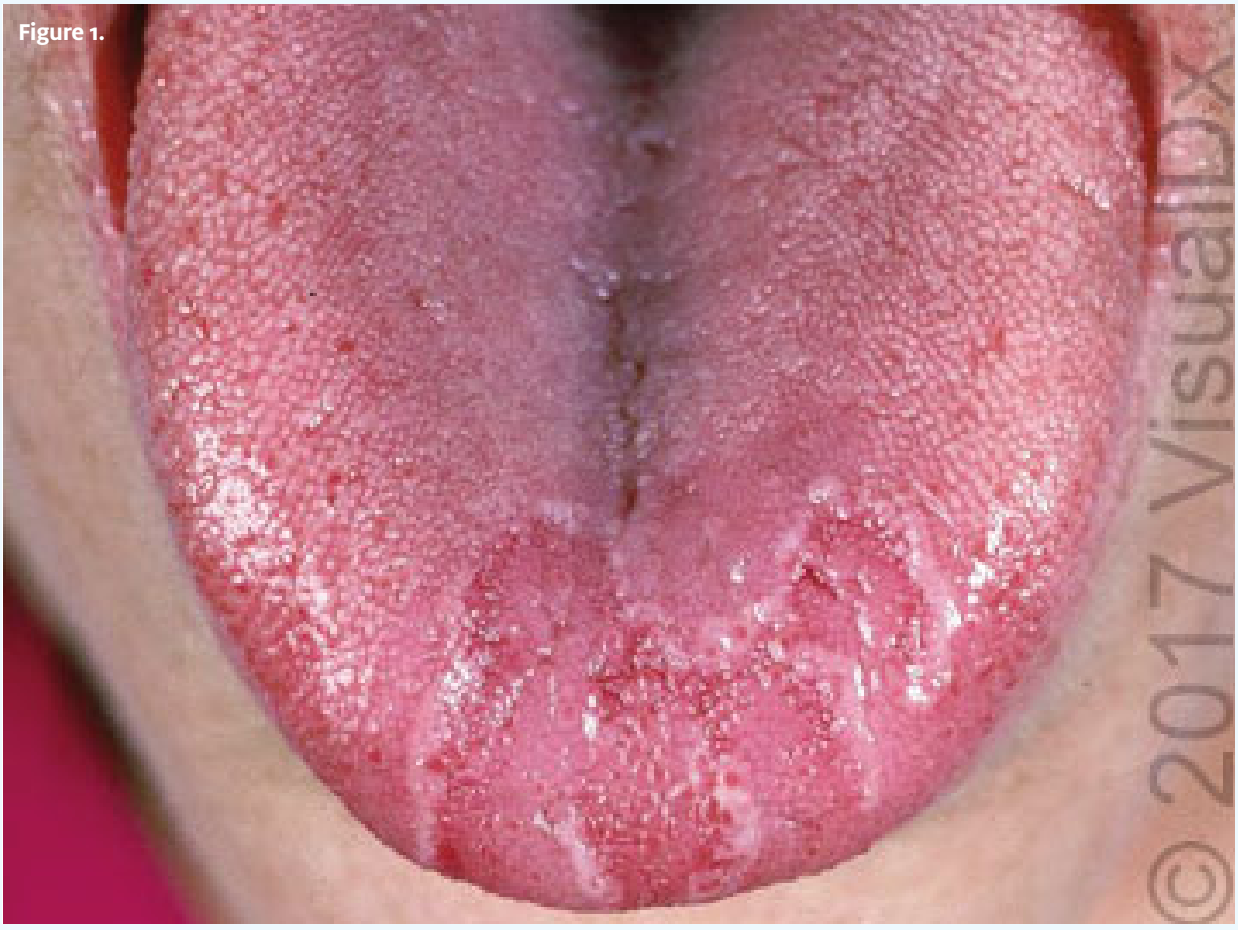
Pearls for Initial Management and Considerations for Transfer

- Although the rhythm is benign, the underlying cause may require further evaluation and management (eg, with sepsis or pulmonary embolism or ischemia).
- Return to the bedside and use the history and exam to risk stratify for serious underlying causes of the MAT. Inquire about chest pain, shortness of breath, syncope, dizziness, diaphoresis, fever, and medication or drug use.
- If the rhythm is found incidentally and the patient is asymptomatic/without new symptoms, further evaluation and management can be done on an outpatient basis.
- Compare the ECG with previous ECGs, if available.
- Indications for transfer include suspicion of sepsis, respiratory failure, myocardial ischemia, pulmonary embolism, theophylline toxicity, or consideration of other life-threatening etiology.

CLINICAL CHALLENGE: CASE 3

A 30-Year-Old Woman with a 'Burning' Tongue

Figure 1.



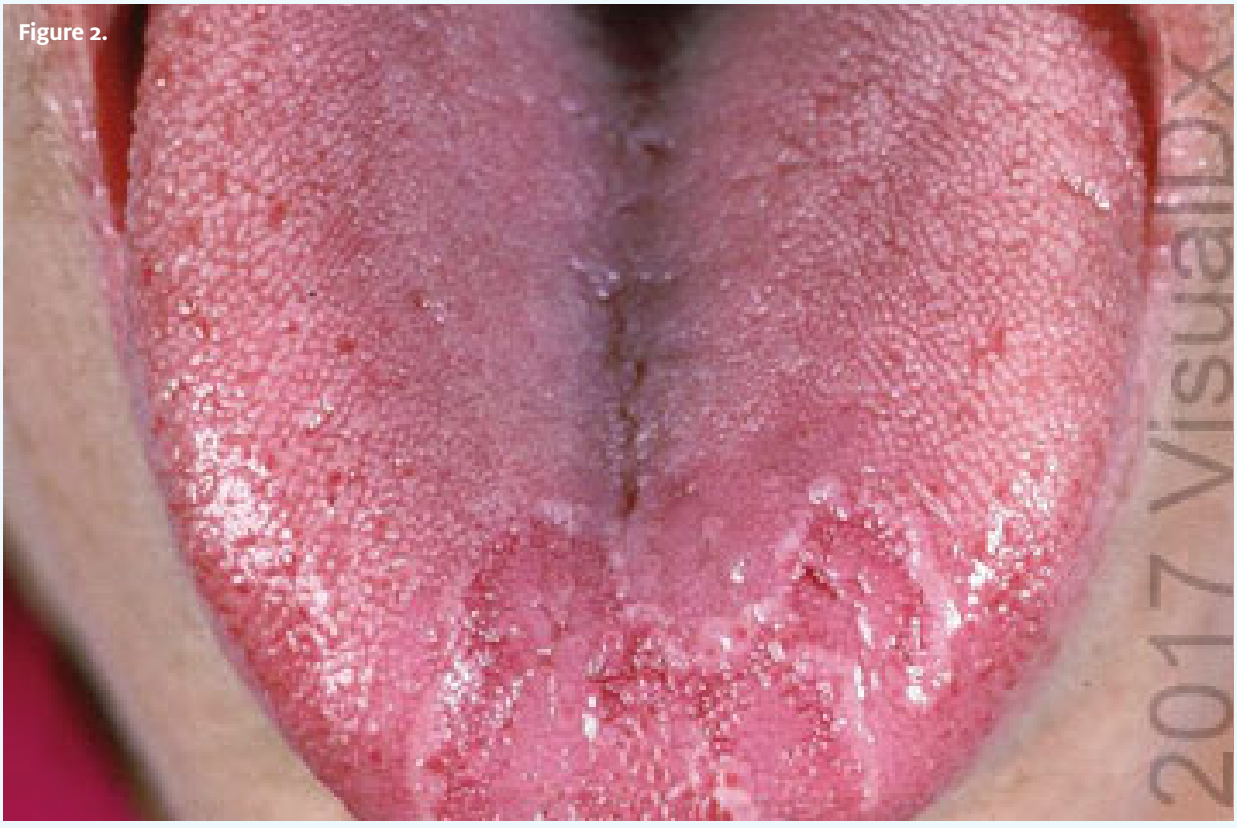
Case

A 30-year-old woman visited urgent care complaining of a burning sensation on her tongue. At first, she had blamed it on a spicy meal, but the feeling didn't go away and now she feels as though she isn't able to taste food as usual. Looking back, she recalls that over a month ago she noticed a white plaque on her tongue. However, that had disappeared within a day so she hadn't thought much of it.

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

THE RESOLUTION

Figure 2.



Differential Diagnosis

- Contact stomatitis
- Migratory glossitis
- Erythroplakia
- Lichen planus

Diagnosis

This patient was diagnosed with migratory glossitis, a chronic relapsing–recurring inflammatory/immune-mediated condition of the oral cavity of unknown etiology. Although the tongue is the most common site of occurrence, it can affect other parts of the mouth. It may begin in childhood, but also affects adults, with females twice as likely to be afflicted. Migratory glossitis is seen in approximately 1% to 2% of the population, and often accompanies fissured tongue.

Erythroplakia may look similar, especially in very late lesions when the raised white rim is not evident. However, erythroplakia would not resolve entirely, nor would it migrate over the tongue. Erythematous/erosive lichen planus or other lichenoid lesions do not tend to migrate, although they may wax and wane in any one area. These lichenoid lesions have fine white radiating striae at their periphery, rather than a linear white border.

Resolution following antifungal therapy would be expected.

Learnings

- Lesional areas are most often asymptomatic, but some patients may complain of a "burnt" or "raw" sensation. Eating hot or spicy foods will increase these symptoms, leading some patients to avoid acidic and spicy foods when the lesions are present.
- Migratory glossitis waxes and wanes and is present for decades.
- Histopathologically, migratory glossitis is characterized by a psoriasiform mucositis; several studies have suggested that the condition is somewhat more frequent in psoriatic patients. Atopic individuals may have an increased prevalence of migratory glossitis. ■

CME: This article is offered for *AMA PRA Category 1 Credit*.™
See **CME Quiz Questions** on page 7.

Intermittent Abdominal Pain and Vomiting in a Teenager: One More Urgent Cause to Consider

Urgent message: Superior mesenteric artery syndrome should be included in the differential diagnosis in children with abdominal pain and weight loss with rapid increase in linear growth.

RALPH MOHTY, MS4, and MICHAEL ESMAY, MD

Introduction

Abdominal pain is one of the most common complaints in childhood. A minor self-limited condition such as constipation or viral gastroenteritis is usually the cause, but more serious conditions need further evaluation and management.[1]

Chronic abdominal pain is a term used to describe intermittent or constant abdominal pain (of functional or organic etiology) that has been present for at least 2 months.[2]

Numerous etiologies cause abdominal pain in older children and adolescents, but fewer cause intermittent abdominal pain associated with vomiting.[1] Such conditions—among many—include gastroenteritis, intussusception, food poisoning, malrotation with midgut volvulus, incarcerated inguinal hernia, adhesions with intestinal/bowel obstruction, and superior mesenteric artery (SMA) syndrome.

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Case Presentation

RB is a 12-year-old Caucasian female who presented to the urgent care (UC) for evaluation of abdominal pain associated with nausea and vomiting. Patient started to have abdominal pain 5 days prior to presenting to UC. Patient reported epigastric pain with occasional radiation to the back and to the left upper quadrant. Pain was worse when lying flat, and was relieved when she leaned forward or laid on her left side. It was also better when she drew up both knees. Parents reported that she had grown about 5 inches in the past year but that she had lost weight during the same time frame. The parents attributed the weight loss initially to their daughter being recently self-conscious of her body image and later because of the episodes of nausea and vomiting. She reported that her emesis is normally gastric contents but over the past couple of days had

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Table 1. Laboratory Test Results

Test	Value
WBC	9.0K
Hematocrit	46.8
Hemoglobin	15.5
Platelets	103K
Sodium	136
Potassium	3.3
Chloride	89
BUN	31
Creatinine	1
Bicarbonate	31
Total bilirubin	0.9
ALT	17
AST	20
Alkaline phosphatase	209
Lipase	30

become more bilious and green in color. Patient denied any fever or chills. She also denied diarrhea, blood in the stools, urinary symptoms, upper respiratory symptoms, headaches, shortness of breath, vision changes, dysphagia, and extremity edema. Patient had no anorexia and indicated that she was hungry. She reported occasional constipation and that her last bowel was movement was 2 days prior to her urgent care visit.

Patient has had three similar prior episodes of abdominal pain and vomiting. Patient was evaluated once in the emergency department and had normal CBC, CMP, lipase, and amylase, as well as a normal abdominal U/S. Previous episodes lasted 2–4 days and resolved on their own. No definite diagnosis was given at the time of her initial evaluation.

The patient had recently started menarche, started spotting 2 days prior to her urgent care visit.

Patient's surgical history included adenoidectomy at age 4. She was not receiving any medications, had no allergies, and had no significant family history except hypothyroidism in her father.

Physical Examination

On initial presentation, the patient's vital signs were as follows:

- Height: 5 ft, 8 in (142 cm)
- Weight: 49.5 kg (109 lbs)
- Temperature: 98.3°F (36.8° C)
- Pulse: 85 beats/min
- Respiratory rate: 16 breaths/min
- Oxygen saturation: 98% on room air

Findings on physical examination: Thin female in no acute distress, alert and oriented
Eyes: Anicteric sclera
Lungs: Clear to auscultation
Heart: Regular rate and rhythm
Abdominal exam: Soft and nondistended with tenderness in the left upper quadrant without rebound or guarding. No palpable masses and no scars seen
GU: No inguinal hernias
Extremities: No clubbing, cyanosis, or edema
Psych: Normal affect
Abdominal ultrasound: Normal
Urinalysis: Negative

Laboratory test results are shown in **Table 1**.

While at the urgent care, the patient had two episodes of bilious vomiting. In view of the recurrent episodes of abdominal pain associated with nausea and bilious vomiting, evaluation in the emergency room for etiologies like malrotation was necessary. The thin habitus and the increase in linear growth associated with weight loss were suspicious for SMA syndrome.

Patient was hospitalized and had an upper GI that did not show any evidence of malrotation or structural abnormality of the esophagus or stomach, with normal esophageal and gastric motility.

Pediatric surgery services were consulted and agreed that clinically patient had SMA syndrome. Their recommendation was for patient to attempt to gain weight; if unsuccessful, she would have a nasojejunal feeding tube for a few weeks. They expected SMA syndrome to resolve with recovery of the lost weight and compensatory weight gain to match increase in linear growth.

Diagnosis

Superior mesenteric artery (SMA) syndrome.

Discussion

Superior mesenteric artery syndrome (also known as cast syndrome, Wilkie's syndrome, mesenteric root syndrome, chronic duodenal ileus, and intermittent arterio-mesenteric occlusion) is an uncommon but well-recognized clinical entity characterized by compression of the transverse portion of the duodenum between the

aorta and the superior mesenteric artery.[3] It is a well-known complication of scoliosis surgery, anorexia, and trauma. Its diagnosis is frequently one of exclusion. Highest index of suspicion in an urgent care setting applies to patients following spinal fusion who present within the first week after surgery with vomiting and abdominal pain.[4]

The superior mesenteric artery usually forms an angle of approximately 45° with the abdominal aorta. The transverse part of the duodenum crosses caudal to the origin of the superior mesenteric artery, coursing between the superior mesenteric artery and aorta. Retroperitoneal fat and lymphatic tissue normally serve as a cushion for the duodenum, protecting it from compression by the SMA. Any factor that sharply narrows the aortomesenteric angle to approximately 6-25° can cause entrapment and compression of that part of the duodenum as it passes between the superior mesenteric artery and aorta, resulting in SMA syndrome (**Figure 1**).

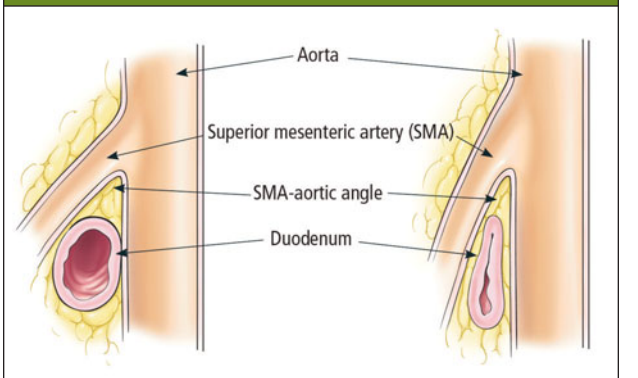
Incidence of SMA is unknown, but up to 0.78% of the findings from upper GI studies support a diagnosis of SMA syndrome. More females are affected by SMA syndrome; two thirds of the cases involve women. It usually occurs in older children and adolescents—75% of the cases occurred in patients 10-30 years of age.[5]

Delay in the diagnosis of SMA syndrome can result in malnutrition, dehydration, electrolyte abnormalities, gastric pneumatosis and portal venous gas, formation of an obstructing duodenal bezoar, hypovolemia secondary to massive GI hemorrhage and even death secondary to gastric perforation.[6–8]

Typically, three quarters of the cases are treated medically, while the rest require surgical treatment. Medical treatment is attempted first, except when upon presentation emergency surgery is deemed necessary. A 6-week trial of medical treatment is recommended in pediatric patients.[9] Medical treatment is aimed at weight gain and interventions to resolve the underlying conditions and may involve proper nutrition with replacement of fluid and electrolytes by a jejunal tube or nasogastric tube or PICC line, placement in the prone or lateral decubitus position, inserting a nasogastric tube for gastric and duodenal decompression, and starting promotility medication like metoclopromide. Symptoms usually improve after restoration of weight. If medical treatment fails, then surgical intervention is required.

Common operation for SMA syndrome is duodeno-jejunostomy. Other operations like gastrojejunostomy, anterior transposition of the third portion of the duodenum, intestinal derotation, division of the ligament of Treitz, and transposition of the SMA are less common.[10]

Figure 1.



Left, the normal angle between the superior mesenteric artery (SMA) and the aorta is 25–60°. Right, in SMA syndrome, the SMA-aortic angle is more acute, and the duodenum is compressed between the aorta and the SMA. (Reproduced with permission from Pasumarthy LS, Ahlbrandt DE, Srour JW. Abdominal pain in a 20-year-old woman. *Cleve Clin J Med*. 2010; 77:45-50. Copyright © 2010 Cleveland Clinic.)

Prompt recognition of SMA syndrome and treatment after other serious conditions like malrotation are ruled out is of utmost importance to avoid fatal catabolysis, dehydration, hypovolemic shock, upper GI bleeding, and cardiovascular collapse. If there is no delay in diagnosis and treatment, then the expected outcome for SMA syndrome treatment is generally considered to be excellent. ■

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Managing Shared Employees Across Multiple Locations

ANDRAYA CARSON-HRUBY and VANCE DANIELS

Urgent message: Ongoing growth within the urgent care industry intensifies competition for competent professionals. "Sharing" trusted workers across multiple sites can help keep costs in check and ensure efficient.

It is a good time to be in the urgent care business: According to the Urgent Care Association of America's 2016 Benchmarking Report, there was a 10% increase in the number of urgent care centers across the U.S. from 2015 to 2016, and 90% of urgent care centers expect continued growth this year.

This boom has made urgent care—once a small subsection of the healthcare industry—a very attractive opportunity for physicians, physician groups, healthcare systems, hospitals, and even private equity firms. As a result, many urgent care centers are now actively looking to open a second, fifth, 15th, or even 50th location.

This explosive growth doesn't come without complications, however. In addition to the challenges of scaling a practice quickly and keeping up with changing healthcare reform regulations, finding enough qualified people to provide the kind of quality patient care needed to create a successful practice can be difficult. It takes a lot of people to keep all those urgent care centers going, and every new location the business opens amplifies the need for more, high-caliber employees.

To make matters even more difficult, this boom comes at a time when the labor pool of skilled nurses and other medical professionals is shrinking, creating stiff competition for these employees, both within the urgent care industry and the wider healthcare industry.

In an effort to minimize the administrative and financial burden of managing multiple clinics and compensate for the labor shortage, many urgent care proprietors opt to "share" employees across multiple locations. The practice of employee sharing can be a great way to keep a multilocation practice running smoothly, but it can also cause a lot of headaches for the business, especially when it comes to employment law compliance and workforce management.

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Tracking Time (and Overtime) for Shared Employees

One of the most common compliance problems clinics that regularly share employees face is overtime. There is a mistaken belief that hours employees work at different locations don't have to be combined when calculating overtime if the locations are two different legal entities.

In most cases, if two or more locations or entities are sharing employees in an integrated practice (where the locations have common ownership, share the same handbook and policies, etc.), even if they are separate legal entities, the hours those employees work in each location should be combined for the purposes of calculating overtime. An employer may also be required to consider time shared employees spend travelling between locations as hours worked, depending on whether the employee is driving directly to the second location as part of their shift.

Organizations with online and attendance systems in place are better able to manage such complex wage and hour issues than those that rely on manual processes. In fact, the 2009 Payroll Performance Study administered by the American Payroll Association and The Hackett Group revealed that the use of modern time and attendance systems was linked to an 86% reduction in grievance/litigation incidents. Urgent care businesses sharing employees across multiple locations should consider using a timekeeping system that not only allows employees to clock in and out at each location, but also automatically combines those hours to create a single time record.

A centralized time and attendance system also enables managers and HR professionals to easily pull reports that identify potential problems and expensive oversights. For example, a

nurse clocking in just 10 minutes early every day could cost an employer thousands of dollars a year in overtime pay; multiply that cost across the entire staff, and the potential overtime costs could be astronomical. To manage this issue, owners can set up alerts in their time and attendance software to notify them when an employee is approaching overtime so they can make the decision to either approve the hours or ask the employee to go home once they've reached their allotted hours for the week.

Automate the Employment Experience

As urgent care practices continue to grow and add locations, it becomes increasingly important to make the hiring process as efficient as possible. However, there is a lot of paperwork standing between a new hire and their first day: I-9, W-4, employment agreement, direct deposit authorization, drug testing consent form...the list goes on and on. Each of these is essential to the onboarding process, but the time it takes to fill them out takes away from time staff could use to train the new employee.

For this reason, many urgent care companies choose to utilize an online onboarding application that allows employees to complete, sign, and submit new hire paperwork electronically. Online onboarding also allows management to verify and store employment documents in one central location where they can quickly and easily access them in the future.

The same principle of automation can also be applied to a number of other aspects of the employee lifecycle: recruiting, benefits enrollment, payroll processing, performance management, license and certification tracking, and more. Whenever possible, urgent care practices should look for tools or applications to automate and streamline these processes to minimize the administrative burden on employees and management.

Create Consistency Across Practices with Shared Ownership

Many multilocation urgent care businesses operate under a shared-ownership agreement between several physicians (although the number of corporate-owned clinics has been increasing). It is particularly important for clinics in a shared-ownership arrangement that intend to also share employees to take the time to establish consistent policies, processes, and procedures across the business so employees can move between locations seamlessly. Policies should also be enforced across every location to prevent confusion among employees (as well as potential legal action).

It is also important for clinics with shared ownership to establish who oversees the day-to-day operations at each location, and communicate this to all shared employees. This person might be the doctor-owner at one location, but the office manager or nurse supervisor at another. Clearly, communicating roles of authority within the company and each location not only helps employees know who to go to with any concerns or questions, but also helps those in charge resolve any issues involving multiple locations.

"Optimizing workforce management strategies will set owners up for long-term success."

Similarly, doctor-owners and practice managers should clearly communicate who a shared employee reports to, as it can be confusing for one employee to have multiple managers or supervisors. Each shared employee should have one primary location and one designated supervisor.

Working closely with the management across all locations to set expectations of performance and quality right from the beginning will go a long way toward running a seamless operation.

Be Aware of Multilocation HR Compliance Issues

One area of that can be very challenging for urgent care centers as they expand and add locations is the different local wage, break time, overtime, or other employment laws that may apply to each specific location across county or city lines. For businesses with multiple locations, it's not unusual for locations in the same city or even the same street to be subject to different employment laws, depending on where county lines fall.

This issue is compounded if there are employees that are shared across these locations. If an employee is going to work at more than one clinic, the HR/management team or compliance officer should ensure that policies are both consistent and compliant with all applicable rules and regulations across the board.

Conclusion

Although the urgent care industry shows no signs of slowing down, physician groups and other healthcare providers looking to capitalize on this boom should continue to move quickly to establish a presence in the rapidly crowding urgent care space.

Expanding your urgent care practice to more locations is exciting, but can also be overwhelming—the more locations you add and employees you hire, the more difficult it becomes to effectively manage your workforce, and the business may suffer as a result. It's for this reason that sharing employees across locations is such an attractive option for many clinics; however, this practice can also cause a lot of headaches when it comes to managing those shared employees.

Taking steps to optimize workforce management strategies early in the life of the practice (like investing in online tools and platforms to track employee hours, automating paper- and labor-intensive onboarding processes, establishing clear and consistent employment policies, and staying up to date on applicable labor laws) will not only help owners scale urgent practices more quickly to meet the current demand, but also set them up for long-term and continued success. ■

2018 ICD-10-CM: A Preview of Urgent Care-Relevant Changes

DAVID E. STERN, MD, CPC

It's again time to review what has changed with the *International Classification of Diseases, Tenth Revision, Clinical Modification* (ICD-10-CM) effective October 1, 2017 through September 30, 2018. There are 360 new, 142 deleted, and 226 revised diagnosis codes in the final update.

We will review the changes most relevant to urgent care, but the examples shown here are not all-inclusive. You can find all updates in the Centers for Medicare and Medicaid Services (CMS) website at https://www.cms.gov/Medicare/Coding/ICD10/2018-ICD-10-CM-and-GEMs.html.

Enterocolitis

Code A04.7 was deleted to make room for two new codes that further specify if the episode of enterocolitis is recurrent or not:

- A04.71, "Enterocolitis due to *Clostridium difficile*, recurrent"
- A04.72, "Enterocolitis due to *Clostridium difficile*, not specified as recurrent"

Malignant Mast Cell Tumor

Code C96.2 was deleted, and the category was expanded to further specify findings for malignant mast cell tumors:

- C96.20, "Malignant mast cell neoplasm, unspecified"

Diabetes

Two codes were added for type 2 diabetes:

- E11.10, "Type 2 diabetes mellitus with ketoacidosis without coma"
- E11.11, "Type 2 diabetes mellitus with ketoacidosis with coma"

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Amyloidosis

Code E85.8 was deleted, and the category was expanded to further specify the type of amyloidosis, such as:

- E85.81, "Light chain (AL) amyloidosis"

Drug and Alcohol Abuse

You will now have the ability to report when a patient is in remission from abuse of each of a variety of substances:

- F10.11, "Alcohol abuse, in remission"
- F11.11, "Opioid abuse, in remission
- F12.11, "Cannabis abuse, in remission"
- F13.11, "Sedative, hypnotic or anxiolytic abuse, in remission"
- F14.11, "Cocaine abuse, in remission"
- F15.11, "Other stimulant abuse, in remission"
- F16.11, "Hallucinogen abuse, in remission"
- F18.11, "Inhalant abuse, in remission"
- F19.11, "Other psychoactive substance abuse, in remission"

Degenerative Myopia

See changes in code group H44.2 when reporting degenerative myopia with:

- Choroidal neovascularization
- Macular hole
- Retinal detachment
- Foveoschisis
- Other maculopathy

Blindness and Low Vision

Changes in code group H54 will allow providers to track rapid deterioration in vision and correlate each eye with the other. For example, one could report blindness in one eye and low vision in the other while specifying the category of effect on each eye:

- H54.1131, "Blindness right eye category 3, low vision left eye category 1"
- H54.2X12, "Low vision right eye category 1, low vision left eye category 2"

"Revised codes for intestinal obstructions will facilitate more accuracy in reporting the obstruction."

Hypertension

New codes in the I27.2 category offer specificity to "Pulmonary hypertension NOS," so reporting secondary pulmonary hypertension can be more precise. Eisenmenger's syndrome was given its own code of I27.83. (Prior to the change, we used the more generic code I27.89, "Other specified pulmonary heart diseases.")

Gingivitis

Those offices offering the occasional periodontal services will see the new gingival recession code category K06.01, basing your selection on whether the condition is localized or generalized, and then the level of severity. For example, code K06.0, "Gingival recession," was deleted and replaced with codes such as:

- K06.011, "Localized gingival recession, minimal"
- K06.023, "Generalized gingival recession, severe"

Intestinal Obstructions

Intestinal obstruction is frequently described as partial or complete. New codes were created in category K56 to aid in accurately reporting the obstruction. A few examples are:

- K56.51, "Intestinal adhesions [bands], with partial obstruction"
- K56.52, "Intestinal adhesions [bands], with complete obstruction"
- K56.600, "Partial intestinal obstruction, unspecified as to cause"
- K56.601, "Complete intestinal obstruction, unspecified as to cause"

Non-Pressure Ulcers

New codes in the L97 and L98 categories allow you to report non-pressure chronic ulcers with muscle or bone involvement but without evidence of necrosis. ICD-10-CM guidelines include the following definitions for non-pressure ulcers:

- Chronic ulcer of skin of lower limb
- Non-healing ulcer of skin
- Non-infected sinus of skin
- Trophic ulcer
- Tropical ulcer
- Ulcer of skin of lower limb

Some examples of the new codes to choose from are:

- L97.215, "Non-pressure chronic ulcer of right calf with muscle involvement without evidence of necrosis"
- L97.216, "Non-pressure chronic ulcer of right calf with bone involvement without evidence of necrosis"

Spinal Stenosis

Code M48.06 has been deleted and replaced with:

- M48.061, "Spinal stenosis, lumbar region without neurogenic claudication"
- M48.062, "Spinal stenosis, lumbar region with neurogenic claudication"

Breast Lumps

New codes in the N63 category allow you to code laterality and quadrant location for unspecified breast lumps. Code N63 is deleted and replaced with more specific codes. Two of those are:

- N63.11, "Unspecified lump in the right breast, upper outer quadrant"
- N63.12, "Unspecified lump in the right breast, upper inner quadrant"

Tubal and Ovarian Pregnancy

Laterality has been added to tubal and ovarian pregnancy codes in order to allow more efficient patient management during subsequent pregnancies. Look for these additions in categories O00.1and O00.2.

Thumb Joint

All codes in categories that reference "proximal interphalangeal joint thumb" and "distal interphalangeal joint thumb" have been removed. Some example code category deletions are:

- S62.51—, "Fracture of proximal phalanx of thumb..."
- S62.52—, "Fracture of distal phalanx of thumb..."
- S63.13—, "Subluxation and dislocation of proximal interphalangeal joint of thumb..."
- S63.14—, "Subluxation and dislocation of distal interphalangeal joint of thumb..."

No replacement codes are being offered, so you would bill using codes for "unspecified joint of thumb."

Noteworthy Revisions

References to the "*medial* phalanx" were changed to "*middle* phalanx." ■

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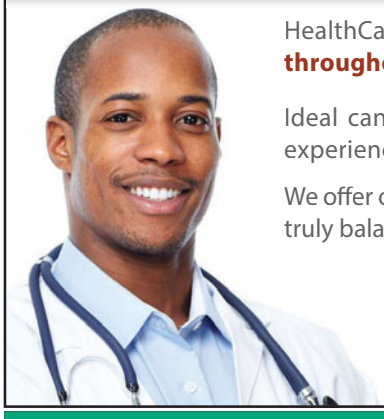

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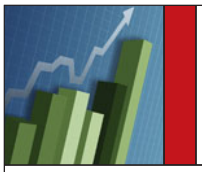


DEVELOPING DATA

Come October, Come the Flu

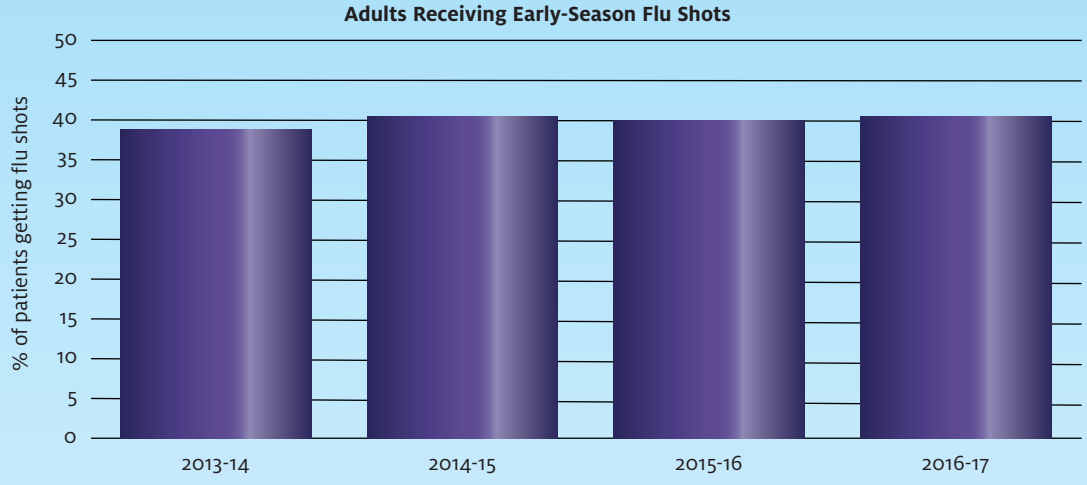
On paper, flu season starts next month, meaning it's an ideal time to start reminding patients they'll need flu shots (and that you'll be happy to provide one). While the majority of children tend to get their shots toward the end of the season, according to the Centers for Disease Control and Prevention, the distribution has been more evenly distributed for adults over the past few flu seasons, as seen in **Figure 1**, below.

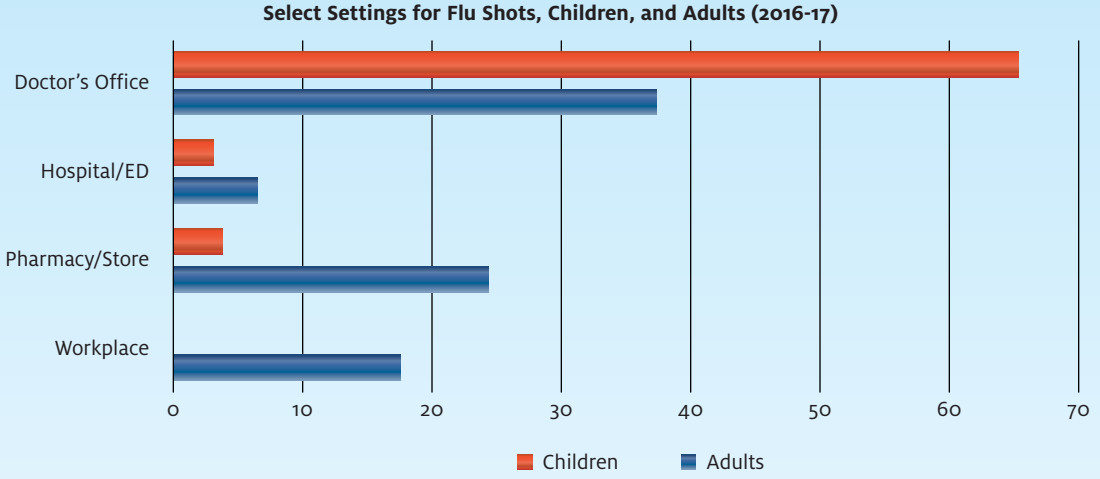
The benefits of administering flu shots in your urgent care center are twofold: 1) additional revenue and 2) more patients who may become return customers. Of course, patients who don't get the shot and end up getting the flu may also return as customers.

Even though many national insurers pay a case rate to urgent care, and patients may be able to pay less in a retail setting, 65% of children and 37% of adults who got flu shots did so in a physician's office in the 2016–2017 season, according to the CDC—more than in any other setting for each (**Figure 2**). It's noteworthy (especially to urgent care operators who offer, or are considering offering, occupational medicine services) that 18% of adults got their flu shots in the workplace.

For more background on the dynamics of providing flu shots in the urgent care setting, see The Great Flu Shot Conundrum in the *JUCM* archives.

THE WHEN AND WHERE OF FLU SHOTS





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