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The Official Publication of the UCA and CUCM

Is Pain the Fifth Vital Sign?

The first in a series of original research articles

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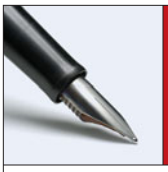

LETTER FROM THE EDITOR-IN-CHIEF

A Small Step for *JUCM*, a Giant Leap for Urgent Care

JUCM's latest initiative in publishing original research and leading an academic transformation as urgent care "comes of age"

Long before the first flowers of the new year bloom, an even earlier indicator of winter's end manifests itself: teenagers plotting and perseverating over Spring Break plans. Partially a rite of passage and in other ways an early indicator of a youth's future fate, much can be predicted about an adolescent's trajectory by their choice of destination and activity during this vernal vacation.

Sure, it's not a perfect science. However, it's safe to say that the kids who choose a booze cruise to Daytona Beach are generally less likely to achieve success by conventional standards than those who chose a mission trip to Latin America. This is because our pubescent years are a pivotal and formative stage in our development. Consequently, the choices we make during this phase of life result in a disproportionately greater impact on where we end up than decisions we make later.

I share this observation because we in the urgent care community are also squarely enmeshed within our adolescence and, therefore, the choices we make now will have a powerful impact our ultimate destiny.

A brief reflection on our history can prove informative. Urgent care was born in the 1970s in response to a rapidly changing American healthcare landscape. Millions of patients with acute medical needs were unable to get timely medical care as the GPs who made house calls closed their practices and overcrowding plagued urban U.S. emergency departments.

It was in this this same era and with this historical backdrop that emergency medicine (EM), in many ways one of UC's older siblings, came of age as a specialty. And we can glean a number of instructive lessons in UC from this chapter in the story of EM.

EM was not yet formally recognized as a specialty in this era and EDs were staffed by a hodgepodge of moonlighting physicians from various specialties. Some gravitated to the ED because they enjoyed the high-paced, high-acuity environment. However, a second, larger group had no special affinity for the practice and simply needed the job. In these days, a patient having a heart attack could walk into an urban ED and very likely be seen by a dermatologist behind on his alimony or an oncologist who'd lost her privileges everywhere else in town.

Beginning in the 1960s, a determined group of physicians who believed strongly that patients were receiving inappropriate care in American EDs began organizing and petitioning for recognition of EM as a unique specialty.

Among these pioneers committed to this cause was Dr. Peter Rosen. In 1979, Dr. Rosen wrote an essay called The Biology of Emergency Medicine. In this article, he outlined his case for the "specialness of emergency medicine" based on the unique practice demands within the ED, as well as the skill set required for appropriate management of potentially life threatening conditions.

In expressing his vision, Dr. Rosen also included, in no uncertain terms, a call to action for to his fellow emergency physicians (EP). In order that EM might be rightfully respected as a specialty in the House of Medicine, he compelled EPs to pursue EM-specific research endeavors and develop in situ EM training programs. His editorial was prescient. As it happens, EM did receive specialty recognition by the American Board of Medical Specialties (ABMS) shortly after his essay's publication.

We obviously live in a very different world than the one Dr. Rosen spoke of in 1979. However, humans haven't evolved into a new species and the rise of urgent care in the U.S. and other countries offers proof that within the specific biology of acute pathology the late Dr. Rosen spoke of, there indeed lies a large proportion of acute illness and injury which do not require advanced diagnostics nor rapid aggressive intervention. This is the realm of urgent care.

I didn't appreciate this truth until I began moonlighting in UC in the final year of my residency training in EM. After having handled most varieties of severe acute illness during my training in the ED, I presumed that working in urgent care would be a refreshingly low stress change of pace. I couldn't have been more sorely mistaken. Within a few hours of my first shift, I realized how inadequate my training had been to pre-

pare me for managing patients in the spartan setting of UC. Not only were my patients presenting with low-acuity, subacute, or chronic complaints which I had little to no experience managing (eg, ingrown toenails, trigger fingers, and ganglion cysts), but also with lower-risk versions of common acute complaints I'd routinely manage in the ED (eg, chest pain and abdominal pain), but for which I had not developed an appropriate approach without advanced diagnostic testing. Even the cases which I was quite comfortable with from my EM training (for example, shoulder dislocations and intractable vomiting) required a different mindset because of the limited human and medical resources available in UC.

I frequently worked alongside doctors trained in family medicine (FM) and I thought perhaps their training afforded a greater sense of preparedness for practicing in UC. But when I questioned several of them, I found that they too felt uncomfortable with UC practice, albeit in the management of a different set of patients and scenarios.

This realization, I believe, is the most revealing of the "specialness" of UC. For urgent care medicine is not family medicine nor emergency medicine, but something distinct. UC practice is resource-constrained, unlike EM, and continuity constrained, unlike FM. And, therefore, patients require a unique approach in UC—one which differs from that commonly used in FM clinics and EDs.

Some responsibility for the delay in the recognition of the "specialness" of UC medicine lies in semantics. The words *urgency* and *emergency* are often used interchangeably and considered to be synonymous by most laypeople. Indeed, we can see evidence of this confusion manifest on every shift when a patient mistakenly shows up on our UC doorstep with a bone protruding from their skin or severe respiratory distress. The myriad of self-referential terminology used by UC centers further contributes to such confusion. It is still commonplace, for instance, to see terms such as "Immediate Care" and "Express Care," among many others, used to label UCs throughout the U.S.

However, when one considers the actual definitions of *urgent* and *emergent*, the distinction becomes more apparent. *Webster's Dictionary* defines *emergent* as "arising unexpectedly" and "calling for immediate *action*." Whereas *urgent* is defined as "calling for immediate *attention*." This difference is actually reflected in the staffing and equipment available in EDs, which are prepared to *act* in response to a plethora of acute life threats. Similarly, UCs are designed to offer a cost-effective alternative for those seeking immediate medical *attention,* but who generally do not need much in the way of rapid *action* taken to prevent a decline in their condition.

It turns out that this represents the bulk of patients in UC (and actually the bulk of patients with acute issues in general): patients with minor illnesses or injuries who merely need a simple procedure, a prescription for an oral medication, or, as is most often the case, nothing more than simple reassurance and education. Before the rise of UC, these patients would often be seen in an ED if they could not be squeezed in for an urgent visit at their PCP's office. However, with changes in the U.S. medical insurance and primary care landscape over recent decades, these options have become increasingly unappealing for patients seeking convenient, cost-effective acute care. This is the niche that UC fills so well.

It is certain that the creation of an infrastructure of UC centers has required considerable heavy lifting over the past 30+ years. Consequently, much of the efforts of the leaders in UC have been devoted to the construction and staffing of facilities which can adequately serve as UC centers.

While this process is certainly ongoing, a largely unmet need within UC continues to loom: an assurance that the growing number of patients presenting to UC centers will receive high-quality, evidenced-based care. Much of this deficiency stems from the lack of dedicated and standardized training programs which prepare clinicians for UC practice and the lack of UC-specific academic research.

However, our patients demand and expect such quality when trusting providers with their healthcare. Certainly, we have made strides in providing access to UC for patients. In fact, in 2012 for the first time, more patients were seen in UCs in the U.S. than in EDs. Yet, similar to as was the case in EDs in the 1960s, there remains little guarantee for patients that, when they walk into an urgent care center, the clinician they see will have the training and proficiency required to deliver the high-quality care they deserve.

Next Steps for Urgent Care

So, how can this situation be corrected? The coming-of-age story of EM offers valuable insights. In 1989, exactly 10 years after Dr. Rosen published his editorial, EM was recognized as a primary specialty by the ABMS. The dedicated group of early EPs, led by Dr. Rosen and several others, had held strongly and steadfastly to the belief in the "specialness" of EM. Even when they were alone in the belief, they always operated under the premise that EM was a proper specialty. And so, consequently, they fought tirelessly for, and won, this recognition for EM within the House of Medicine. This achievement was largely attributable to their dedication to education and research within their specialty. And as a result, the quality of emergency care in the U.S. has since improved exponentially.

We have reached a similar inflection point in the domain of urgent care medicine. For reliable and universal improvement in the quality of care delivered by UC clinicians, specialty recognition is necessary. And in turn, the most assured path towards this recognition is through a self-directed academic transformation within our specialty.

Next Steps for JUCM

As the only peer-reviewed journal in UC, *JUCM* can serve as the primary platform to promote this process.

Until recently, *JUCM* has published predominantly content reviewing the core content and competencies relevant for UC practice. And while this material has undoubtedly been relevant, it has not served to develop an evidence base to drive innovation and define high-quality care in our field. In order for such an academic transformation to unfold, publication of original research within urgent care will be critical. To that end, beginning this month and continuing in perpetuity, *JUCM* will be regularly publishing UC-relevant original research. And in following in Dr. Rosen's (large) footsteps, I invite each of you to participate in this next phase, a quantum leap actually, in the story of UC by pursuing UC research and scholarly work within your practice and sharing your findings with the *JUCM* audience.

In the movie *Field of Dreams*, Kevin Costner's character wisely heeds the advice, "If you build it, they will come." Well, we have built *it*—a massive urgent care network, numbering nearly 10,000 centers in the U.S. And patients certainly have come. However, there remains much work to be done to ensure that the care delivered in these centers is reliably high quality and cost-effective.

I believe the academic transformation for our specialty must begin here. We at the *Journal* are poised to support this crucial next step in this process. However, we cannot achieve this alone. Nor can the leaders of the CUCM and UCA carry this torch without your help. Collectively, however, in true grassroots fashion, we can propel our specialty forward. The question then becomes: what role will *you* play in this exciting and pivotal chapter of our story? ■

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Resources

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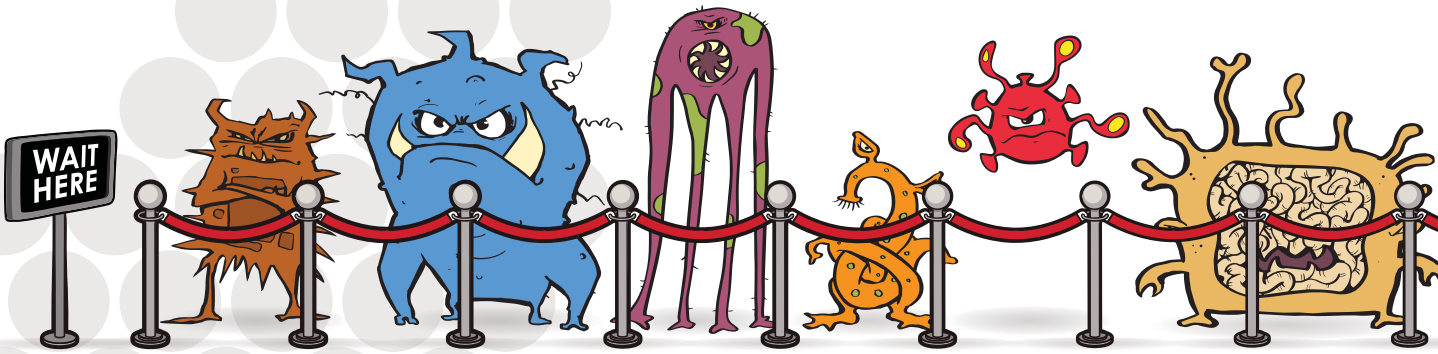

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[2] FilmArray RP EZ Abbreviated IFU.

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ORIGINAL RESEARCH

AHEAD IN *JUCM*

Our article on whether pain should be considered the fifth vital sign is the product of a concentrated effort by our clinical editorial team to fill a significant void in research relevant to, and specific to, urgent care medicine—not to mention a lot of hard work by dedicated clinicians who have volunteered to share data they've collected with *JUCM* readers. We are committed to publishing more such research, as well. In future issues, look for original research articles on rapid medical evaluation programs, use of antibiotics for sinusitis, and more. If you have ideas on original research that could benefit your urgent care colleagues, describe it in an email to editor@jucm.com.

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JUCM The Journal of Urgent Care Medicine (ISSN 19380011) 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 healthcare marketplace. As the Official Publication of the Urgent Care Association and the College of Urgent Care Medicine, *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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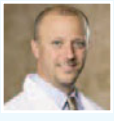
Urgent care is at a critical point in its evolution. The general public and medical professionals have come to understand that quality of care really can be enjoyed on a walk-in basis without waiting for hours in a higher-priced emergency room. And certainly nobody relishes the days' long wait to see a primary care provider—including those primary care providers, who are looking at urgent care centers as reciprocal referral partners in growing numbers. Now it's time for the next step: academic, setting-specific research that will allow the industry to amass data and standards, hopefully with the intent of becoming a full-fledged specialty.

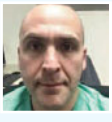
JUCM is committed to doing our part to that end. This month, we are happy to publish the first in what will be a series of original-research articles hand-picked for our urgent care readers. We're starting with a subject that will be very familiar to you: pain. Some in the medical community think pain should "count" as a vital sign, right along with body temperature, pulse rate, respiration rate, and blood pressure. Others disagree on the basis that pain is subjective and cannot be used to predict clinical course or outcomes.






In an attempt to answer the question, **Mark Pruitt, DO, Ya Wen, DO, Michael Pallaci, DO,** and **Godwin Dogbey, PhD** did what good scientists do: they assembled data on the question and came to a conclusion. You can read what that amounts to in Is Pain the Fifth Vital Sign? (page 22).

Drs. Pruitt and Wen were residents at Adena Regional Medical Center at the time of their research. Dr. Pallaci is adjunct clinical professor of emergency medicine at Ohio University Heritage College of Osteopathic Medicine. Dr. Dogbey is a biostatistician at the Campbell University, Jerry M. Wallace School of Osteopathic Medicine, Lillington, NC.

The subject of pain is also relevant to our lead clinical article this month. In Rhabdomyolysis in the Urgent Care: An Unexpected Cause of Myalgias (page 13), authors **Jordan Miller, DO**, **Ari Leib, MD**, and **Andre Bonnet, DO** consider that rhabdomyolysis has a wide range of presentations, from asymptomatic to life-threatening. The most dramatic presentation can result in acute renal failure, electrolyte imbalances, and/or disseminated intravascular coagulation.

Dr. Miller is an emergency medicine resident at Adena Health System in Chillicothe, OH, where Drs. Leib and Bonnet are attending physicians.

Nearly as common as presentations that feature some sort of pain are cases involving an unexplained rash. As common as it may be, evaluation and diagnosis can get tricky, especially when the culprit is a rare variant. That's what makes this month's case report so interesting. Guttate Psoriasis: An Uncommon Cause of a Rash, by **Chasity L. Falls, MS, PA-C**, starts on page 30.

Ms. Falls is a physician assistant with Ascension Medical Group, and a DMSc student at AT Still University.

All the authors gravitated toward medicine with a purpose in mind: to help people who need medical care. Your business itself has to have a purpose, as well, if you expect to succeed. More and more, though, that purpose will be a determining factor for candidates you hope will join your team. In the article To Appeal to Millennials, You Need a Purpose (page 19), **Alan A. Ayers, MBA, MAcc** explains why successful companies leverage powerful purpose statements towards clearly articulating their mission and values, and cultivating an engaged and inspired workforce. As the chief executive officer of Velocity Urgent Care (as well as *JUCM*'s senior editor for practice management content), this is a subject he approaches every day.

Mr. Ayers also applied his vast urgent care knowledge to what some see as a growing threat to the essential role of urgent care providers (and clinicians in other specialties, as well)—the prospect of pharmacists empowered to actually prescribe medications in the pharmacy. Some state legislatures are looking hard at this topic. You should, too. Prescribing Pharmacists: Cheaper and More Accessible Than Urgent Care? starts on page 41.

Also in this issue, **Monte Sandler**, executive vice president, revenue cycle management for Experity, offers valuable insights into something everyone in medicine talks about, but many might not understand fully. Read Contracting and Credentialing: A Complex Obstacle to Navigate, starting on page 46, and you'll see what we mean.

Finally, in Abstracts in Urgent Care (page 27), **Yijung Russell, MD** shares urgent care-relevant insights from literature published across the medical landscape. This month, she highlights essential aspects of the COVID-19 pandemic as well as the link between fluoroquinolones and arrhythmia, whether isopropyl alcohol really does work for nausea relief, and what it is patients prefer about urgent care vs the ED (and vice versa). Dr. Russell practices in the Department of Emergency Medicine at Amita Health Resurrection Medical Center in Chicago. ■

CONTINUING MEDICAL EDUCATION

Release Date: April 1, 2020
Expiration Date: March 31, 2020

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

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

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

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

Planning Committee
- **Joshua W. Russell, MD, MSc, FACEP**
  Member reported no financial interest relevant to this activity.
- **Michael B. Weinstock, MD**
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- **Alan A. Ayers, MBA, MAcc**
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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.**

Rhabdomyolysis in the Urgent Care: An Unexpected Cause of Myalgias (page 13)

1. **Which of the following may cause rhabdomyolysis?**
   a. Heat-related events
   b. Endocrine problems
   c. Environmental events such as lightning strikes and third-degree burns
   d. Inflammatory processes
   e. All of the above

2. **Classically, rhabdomyolysis presents as a triad of symptoms that include:**
   a. Myalgia, weakness, and myoglobinuria
   b. Myalgia, fever, and edema
   c. Muscle weakness, rhinorrhea, and myoglobinuria
   d. Fatigue, fever, and myalgia

3. **Treatment of rhabdomyolysis centers around:**
   a. Immunosuppressants
   b. Fluid resuscitation
   c. Antibiotics
   d. None of the above

To Appeal to Millennials, You Need a Purpose (page 19)

1. **Which of the following is not among the questions that should be answered by a purpose statement?**
   a. What is your company's reason for existing?
   b. What value are you giving your customers?
   c. What is the collective experience (in years) of your clinical staff?
   d. How is your firm uniquely capable of providing value?

2. **The content of a purpose statement is especially important to which of the following demographic group of employees?**
   a. Baby Boomers
   b. Gen Xers
   c. Generation Y
   d. Millennials

3. **Because the staff is *always* paying attention, urgent care leaders must ensure that their words and deeds always align with:**
   a. The company purpose
   b. The CEO's vision
   c. The image the operation aims to portray
   d. The spirit of the employee manual

Guttate Psoriasis: An Uncommon Cause of a Rash (page 30)

1. **Guttate psoriasis is commonly preceded by a streptococcal infection and may develop within:**
   a. 1-2 days of resolution of the infection
   b. 3-4 days
   c. 2-3 weeks
   d. Over 30 days

2. **The differential diagnosis for guttate psoriasis includes all but which of the following?**
   a. Secondary syphilis
   b. Meningococcemia
   c. Pityriasis rosea
   d. Tinea corpus

3. **The first step when treating a patient for guttate psoriasis should be:**
   a. Removing environmental triggers
   b. Treating infections
   c. Antipyretics
   d. All of the above
   e. a and b only

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March Roared in Like a Lion

LAUREL STOIMENOFF, PT, CHC

The month of March derives its name from *Mars*, the Roman god of war, who was so named because it was the time of year that marked the beginning of the military season after a winter hiatus. It felt aptly named as March 2020 roared in and UCA and our members prepared for battle.

All Things COVID-19

Over the past several years the Urgent Care Association has been making a case for funding to support an emergency response that would activate the nearly 10,000 urgent care centers across the country. In early 2018 UCA supported a survey conducted by the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response (ASPR). As a result, ASPR determined that urgent care centers could have a role in the delivery of care for low-to-moderate illnesses or injuries during a community-wide emergency or disaster. The authors concluded that, "There is a high level of willingness among urgent care centers to participate in emergency preparedness and response activities"[1] and went on to make multiple recommendations on how to enhance urgent care readiness. The report was encouraging yet, sadly, little has been done to harness the willingness and the accessibility of the centers across the country.

The activity by staff and industry volunteers in response to COVID-19 has been all consuming, but would certainly have been mitigated with the funding we've been seeking. Only the ASPR recommendation to explore the feasibility of direct transport to urgent care centers by emergency medical services has progressed in the Emergency Treat, Triage and Transport (ET3) pilot just getting underway. The CDC is certainly providing tireless guidance, but urgent care-nuanced information is essential. I would like to thank the physicians who now make up the UCA/College of Urgent Care Medicine Task Force and those who have freely shared their own internally developed resources, processes and policies, the sum of which we are now displaying on a COVID-19 dedicated webpage, ucaoa.org /Coronavirus. Together, we shall strive to support urgent care centers across the country as they serve their communities and protect their staff.

"Bills in Virginia and Florida would expand the scope of care for pharmacists to include services ranging from testing for influenza and providing related prescriptions, to the care of multiple chronic conditions."

And if That's Not Enough, Start the Battle Cries—State Legislatures Are in Session

There are so many to mention but to name a few, NJ 2209 has a litany of concerning clauses including one that limits, except in emergent circumstances, the provision of healthcare services to individuals younger than 18 years of age. And there are bills moving with alacrity in both Virginia and Florida greatly expanding the scope of care for pharmacists. The expanded services range from testing for influenza and providing (not simply dispensing) related prescriptions, to the care of multiple chronic conditions when a collaborative agreement is in place with a physician.

This is occurring at the same time an opioid case in Florida advances against several large retail pharmacies whose collective response has been, "Pharmacists do not write prescriptions and do not decide for doctors which medications are appropriate to treat their patients."

So, which one is it? A UCA position statement on pharmacists treating patients while urgent care centers have capacity is forthcoming. I also encourage you to read Alan Ayers's article on the pharmacist scope expansion in this issue of *JUCM* (page 41).

In Conclusion

Now more than ever we need to establish a strong offense. March launched the season. We hope you join us for UCA2020—now an on-demand virtual experience! ■

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Rhabdomyolysis in the Urgent Care: An Unexpected Cause of Myalgias

Urgent message: Rhabdomyolysis has a wide range of presentations, from asymptomatic to life-threatening. The most dramatic presentation can result in acute renal failure, electrolyte imbalances, and/or disseminated intravascular coagulation (DIC).

JORDAN MILLER, DO, ARI LEIB, MD, and ANDRE BONNET, DO

Epidemiology

Approximately 26,000 cases of rhabdomyolysis are reported in America yearly, with 10% to 50% progressing to acute renal failure.[1,2] Mortality rates range from 7% to 80% and are higher in patients who develop multiorgan failure.[3] While the most common cause is direct muscle trauma, a wide range of processes precipitate, including autoimmune/inflammatory myopathies.[1,2]

Causes of rhabdomyolysis include:

- Heat-related events, such as heatstroke and marathon running
- Trauma, such as immobilization and crush injuries
- Malignant hyperthermia, neuroleptic malignant syndrome (NMS), and other toxicological events
- Endocrine problems, such as hypothyroidism, thyrotoxicosis, diabetic ketoacidosis (DKA)
- Environmental events such as lightning strikes and third-degree burns
- Inflammatory processes such as polymyositis and dermatomyositis.[4,5]

The prevalence of polymyositis and dermatomyositis is 5 to 22 per 100,000 patients, and the incidence is approximately 1.2 to 19 million persons at risk per year.[6] Dermatomyositis is an acquired muscle disease which results in chronic muscle inflammation and weakness. A classic skin rash may precede the muscle weakness. It is most commonly seen in adults between the ages 40 and 60.[6]

Most patients experience muscle aches and weakness of the more proximal muscles, which results in difficulty performing certain activities such as raising their arms over their head, climbing stairs, and swallowing. A reddish-purple heliotrope rash may develop over the eyelids and across the cheeks and bridge of the nose. Gottron papules can develop over the knuckles, elbows, knees, and other extensor regions; this appears as a scaling and red rash.[7]

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Polymyositis is another acquired muscle disease that is also characterized by chronic muscle inflammation and degenerative changes, which leads to symmetric weakness and proximal muscle atrophy. As mentioned

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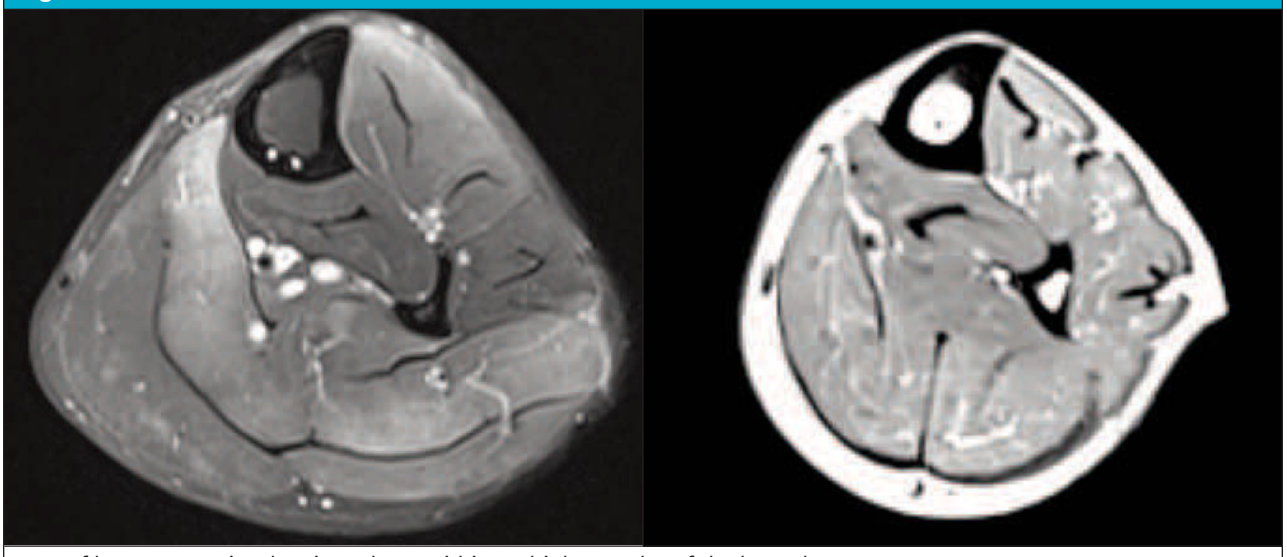
Figures 1 and 2.



MRI of lower extremity showing edema within multiple muscles of the lower leg.

above, the common areas affected are the proximal muscle groups. Polymyositis usually begins around the age of 20, has a gradual progression, and is more common in women than men.[8] Unlike dermatomyositis, there are no skin changes. Risk of developing polymyositis is higher in patients with other autoimmune disorders such as systemic lupus erythematous (SLE), rheumatoid arthritis, scleroderma, and Sjogren's syndrome. Complications of polymyositis include difficulty swallowing and aspiration. Patients may experience dysfunctional breathing if chest muscles are affected, which may lead to shortness of breath and eventual respiratory failure.[9] A history suggesting one of the polymyopathies must heighten the provider's concern for the risk of rhabdomyolysis.

Case Report

History

A 52-year-old-male presented with complaints of generalized pain, which he said had occurred in the past, once culminating in acute renal failure with an associated serum creatinine kinase of >20,000 units/L. His pain was most pronounced in his calves, extremities, and lower back. He denied any recent trauma but had been doing work around the house and riding his bike. He said that his urine had become much darker. He complained of weakness but denied any chest pain, shortness of breath, nausea, vomiting, diarrhea, or skin changes. He admitted to drinking about six liters of water a day to help with his pain because he had the episode of acute renal failure previously.

Exam

Physical exam revealed a disheveled male who appeared older than his stated age. His vital signs were notable for being afebrile, with a blood pressure of 110/60, a heart rate of 96, respiratory rate 16, and an oxygen saturation of 100% on room air. His cardiovascular, pulmonary, and abdominal examination was unremarkable. He had decreased strength to bilateral thighs and decreased ability to dorsiflex the left foot. He had excruciating tenderness to the calves and lower back with palpation. Pulses were 2+ equal in all extremities. No rashes were seen throughout on his integumentary examination.

Differential Diagnosis

The differential diagnosis for myalgia and dark urine includes:

- Renal colic/nephrolithiasis – Rhabdomyolysis may be confused with renal colic and both may have a urine dipstick positive for blood. However, urolithiasis is not associated with marked elevations of creatinine kinase and myoglobinuria is not present in renal colic.
- Guillain-Barré syndrome – Often presents with ascending muscle weakness. Monitoring the negative inspiratory fraction (NIF) and vital capacity (VC) is important in these patients. Diagnosis is

achieved with lumbar puncture and analysis of cerebrospinal fluid for cytoalbumin dissociation and electrophysiologic evidence of demyelination
- Nonaccidental trauma or neglect
- Cold or heat exposure
- Dehydration

Testing/Outcome

Laboratory evaluation in the emergency room revealed a potassium level of 4.3, elevated serum creatinine kinase (CK) of >20,000 units/L and elevated ALT at 330 units/L and AST at 680 units/L. Renal function panel revealed a creatinine of 0.50 mg/dL and a BUN of 15 mg/dL. A right upper quadrant ultrasound revealed no abnormalities of the liver or gallbladder and the patient denied a history of alcoholism. Urinalysis was negative for infection but showed large blood without red blood cells. He was given two boluses of crystalloid fluid and started on maintenance intravenous fluids.

Further questioning revealed that he had had multiple episodes of rhabdomyolysis, including an episode of acute renal failure. He also reports "self-treating" episodes of rhabdomyolysis at home by increasing oral fluid intake.

Additional workup revealed an aldolase of 317.1 units/L. MRI of the lower extremity showed edema within multiple muscles of the lower leg, especially within the soleus muscle, but also seen within the anterior and lateral compartments and within the gastrocnemius muscles.

After the MRI, the patient had a muscle biopsy which was reported as skeletal muscle with areas of myofibril degeneration with loss of cross striations and increased interstitial inflammatory cells composed predominately of mononuclear type cells. Based on these tests, he was diagnosed with polymyositis, which offered explanation for his recurrent rhabdomyolysis. Further laboratory analysis demonstrated a positive SSO-A/Ro 52 antibody which returned elevated at 124 AU/mL. The patient was monitored in the hospital until his CK levels improved. He was discharged with advice for rheumatology specialty follow-up.

Discussion

Rhabdomyolysis is a syndrome where the body breaks down skeletal muscle fibers, which subsequently causes actin and myosin fibers to become necrotic. Eventually leakage of muscle contents into the circulation occurs. Common causes include crush injury, excessive physical exertion, alcohol abuse, and certain medications associated with syndromes of toxicity such as neuroleptic malignant syndrome (NMS). Genetic disorders have also been implicated as precipitating factors of rhabdomyolysis (such as in muscular dystrophy and glycogen storage diseases). Inflammatory myopathies such as polymyositis and dermatomyositis, as seen in our patient, can be the precipitating factors behind recurrent episodes of rhabdomyolysis. Features of rhabdomyolysis are often nonspecific.[4]

Common physical exam findings include:

- Muscle pain and tenderness with decreased muscle strength
- Soft tissue swelling
- Pressure necrosis
- Calf and lower back pain
- Muscle atrophy in the setting of myopathy disease

Classically, rhabdomyolysis presents as a triad of symptoms that include:
- myalgia
- weakness
- myoglobinuria

However, only 10% of patients are seen to have the classic triad and about half of patients do not complain of muscle pain or weakness at all.[4] Instead, patients often present with discolored urine (tea or red in color) as their chief complaint.

Complications of rhabdomyolysis can be categorized into early and late. In the acute phase of rhabdomyolysis, hyperkalemia from severe muscle breakdown can cause cardiac arrhythmia and sudden cardiac arrest within the first 12 hours.[1,10] Approximately 15% of patients go on to experience the late complication of renal failure, which is secondary to the toxic effect of myoglobin on the renal tubules.[4] Acute renal failure and diffuse intravascular coagulation are late complications that occur within 12-24 hours.[4]

Diagnosis

Common physical exam findings include:
- Muscle pain and tenderness with decreased muscle strength
- Soft tissue swelling
- Pressure necrosis
- Calf and lower back pain
- Muscle atrophy in the setting of myopathy disease[10]

Testing should include a creatinine kinase and elec-

Disposition/Considerations for Transfer

- Muscle tetany or cramping not relieved with anti-inflammatories and fluids
- Urine dipstick that shows blood without red blood cells
- Findings consistent with SIRS or sepsis

trolyte and renal function panel to assess for acute renal dysfunction and elevated potassium. (CK levels help us identify rhabdomyolysis but do not indicate the prognosis.[11]) Urinalysis will typically show blood on dipstick without red blood cells on microscopic evaluation. An EKG should be performed secondary to evaluation for cardiac toxicity of elevated potassium.

Inflammatory myopathies are diagnosed by characteristic historical and physical exam findings, such as proximal muscle weakness and evidence of effect on activities of daily living (eg, asking the patient if they have difficulty with brushing their teeth or walking upstairs). Obtaining screening labs such as aldolase, ALT/AST, and lactate dehydrogenase (LDH) can help in evaluating for underlying inflammatory myopathies. Although nonspecific, obtaining an erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) can help evaluate for inflammation.

Antinuclear antibody (ANA) is another screening tool commonly used, and obtaining specific antibodies such as Jo-1 antibodies and SSA/SSB can also aid in diagnosis. Further inpatient testing may include electromyography (EMG), which is able to evaluate for skeletal muscle activity during rest and activity. In inflammatory myopathies, this test will be abnormal. MRI can evaluate for inflammation in the muscle groups. The gold standard for diagnosis is with a muscle biopsy, which will show muscle degradation.[7,8]

Pathophysiology

Rhabdomyolysis involves direct muscle injury or failure of energy supply within the muscle cell, leading to cellular death and lysis. Normally, within the muscle cell there are ion channels that maintain low intracellular sodium and calcium levels with high intracellular potassium concentrations. During depolarization, there is an influx of calcium ions from the sarcoplasmic reticulum into the sarcoplasm, which causes the muscle cells to contract through actin-myosin cross-linking. These processes depend on ATP which, through injury, can disrupt the normal process and cause an imbalance within the muscle cells and electrolyte concentrations.

As ATP is depleted, there is an excessive intracellular influx and calcium and sodium ions. As sodium enters the cell, water and thus the intracellular space is further disrupted and cellular swelling results. High calcium ion concentrations cause sustained myocyte contraction and further ATP depletion. Lysis of the cellular membrane occurs and further damages the ion channel, resulting in muscle injury and inflammation. A myolytic process occurs and necrosis of the muscle cell ensues, with subsequent release of the muscle contents into the extracellular space and bloodstream.

"Mannitol and bicarbonate are often used to supplement fluid resuscitation with normal saline. One study showed a protective effect with mannitol due to diuresis, which minimizes intratubular heme pigment deposition."

Management

Treatment of rhabdomyolysis includes aggressive fluid administration to prevent renal injury. Most data indicate that acute kidney injury (AKI) doesn't increase until the CK level exceeds 5,000 units/L.[2]

Intravenous hydration should be initiated immediately. One study showed that forced diuresis within 6 hours of admission prevented all episodes of acute renal failure. At first isotonic crystalloid should be given in high volume at a rate of 1.5 L per hour and a high urine output should be maintained (300 mL per hour) until myoglobinuria resolves. Maintenance IV fluids should be continued until CK levels are below 1,000 units/L. If oliguria develops despite aggressive fluid resuscitation, switching fluids to 0.45% normal saline with 1 to 2 amps of sodium bicarbonate is appropriate.

Additionally, 10 g/L of mannitol can be added for oliguria. If the patient develops severe AKI and/or oliguria, consultation with a nephrologist for consideration of emergent dialysis is prudent.[1,4,10]

Mannitol and bicarbonate are often used to supplement fluid resuscitation with normal saline. One study showed a protective effect with mannitol due to diuresis, which minimizes intratubular heme pigment deposition.

Mannitol has been shown to act as a free radical scavenger, which allows for decreased cellular injury. Using

an alkalizing agent (ie, sodium bicarbonate) has been shown to minimize renal damage; however, there have been no prospective randomized control trials showing that mannitol and bicarbonate improve outcomes above aggressive fluid resuscitation. A retrospective study of 24 patients showed that administration of normal saline alone prevented the progression to renal failure and that addition of mannitol and bicarbonate showed no additional benefit.[12]

Dialysis is another cornerstone of treatment modalities for rhabdomyolysis when renal failure and/or refractory hyperkalemia occurs. Patients can develop oliguric acute tubular necrosis which, in turn, can result in acute renal failure.[1]

Hemodialysis should be started in conjunction with a nephrologist. Many patients with previously normal renal function and AKI due to rhabdomyolysis will recover intrinsic renal function, and not go on to permanent dialysis dependence.[1] Various forms of dialysis have been used for acute renal failure if it develops, but there is no evidence to support the use of a specific dialysis modality. It has been hypothesized that the use of dialysis functions to directly reduce circulating myoglobin.[12,14]

"Management of polymyositis and dermatomyositis includes corticosteroids as the initial therapy, especially in episodes of acute exacerbation of inflammation. Prednisone is dosed at 1 to 2 mg/kg/day in most patients. In patients with severe weakness or extramuscular involvement, IV methylprednisolone 1 mg/day for 3 days can be used."

Management of polymyositis and dermatomyositis includes corticosteroids as the initial therapy, especially in episodes of acute exacerbation of inflammation. Prednisone is dosed at 1 to 2 mg/kg/day in most patients. In patients with severe weakness or extramuscular involvement, IV methylprednisolone 1 mg/day for 3 days can be used.[14] Patients should be monitored for steroid-related adverse effects such as steroid induced myopathy, weight gain, hyperglycemia, hypertension, adrenal insufficiency, and osteoporosis. For prevention of acute episodes, patients may be started as outpatients on immunologic agents such as rituximab, which is an anti-CD20 monoclonal antibody. Tocilizumab (anti IL-6 antibody), anakinra (anti-IL 1 antibody), and alemtuzumab (anti CD52 antibody) are all options that may be started under the direct care of a rheumatologist.[8,15] ■

Teaching Points

- Recurrent episodes of rhabdomyolysis often occur due to an underlying autoimmune disorder, such as an inflammatory myopathy.
- Urinalysis will often reveal a dipstick exam positive for blood, but without red blood cells noted on urine microscopy.
- Creatinine kinase above 5,000 units/L is associated with AKI. Myoglobin release from muscle necrosis contributes to renal failure due to direct toxicity to the renal tubular system. Consider admission.
- Treatment of rhabdomyolysis centers around fluid resuscitation. Bicarbonate, and/or mannitol may also play a role in certain cases. Emergent dialysis may be required in severe cases with oliguria nonresponsive to less invasive care.

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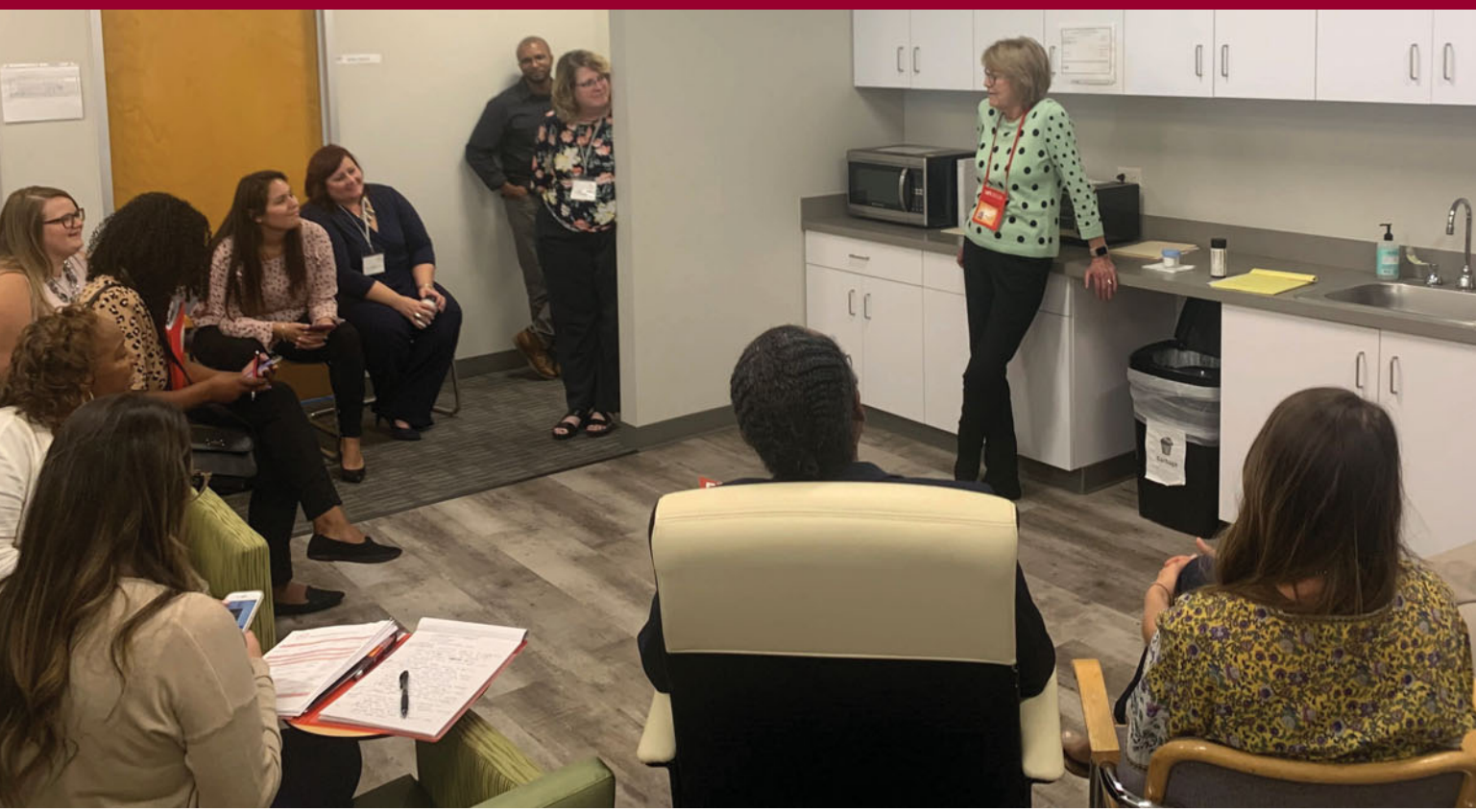

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To Appeal to Millennials, You Need a Purpose

Urgent message: A sense of "purpose" is the primary motivator for many employees—even beyond compensation and benefits. That's why successful companies leverage powerful purpose statements towards clearly articulating their mission and values, and cultivating an engaged and inspired workforce.

ALAN A. AYERS, MBA, MAcc

Whether part of a larger cultural and societal shift, or due to the influence of a Millennial-dominated workforce, the importance of "purpose" at work has taken on a heightened significance in the last decade. In fact, many of today's employees, regardless of generation, express a need to work for an organization that has a clear set of values and a reason for existing—in other words, an overarching purpose. And as many people enter medical professions because of a strong desire to "to help people" and "serve communities," the idea of a clear purpose is especially relevant to an urgent care organization.

Purpose on a Global Scale

World news, economics, and politics magazine *The Economist* addresses the societal and cultural implications of companies and purpose in an article titled, I'm From a Company, and I'm Here to Help.[1] The article offers examples of companies—many of them large, global brands—that have stepped up to align their pursuit of profits with the desire to help solve pressing societal, economic, and environmental issues, especially in areas where the governments have fallen short. Microsoft CEO Satya Nadella, for example, declares that "a sense of purpose together with a mission that is aligned with what the world needs is a powerful way for the company to earn public trust."

Many of the other corporate leaders cited in the article echo similar sentiments regarding climate change, inequality, or carbon neutrality initiatives, for instance, that they've espoused and aligned with their companies' purpose and mission statements. For those companies, stakeholders may be just as important as shareholders insofar as who their larger purpose-driven efforts will serve the most.

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Meanwhile, although the local urgent care may not be in a position to take political stands or become politically involved like those global heavyweights, *The Economist* article does underscore a growing activism that's prevalent in larger companies, and which is beginning

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In your urgent care operation, nobody should have the orientation of being "just an RT" or "just an MA." They are all members of a cross-functional team, focused on getting patients in and out of the center quickly, safely, and with good clinical outcomes.

to trickle down to smaller firms. Urgent care organizations should therefore be conscious that in a day and age of growing social concern, employees have a desire for their jobs to not only align with a higher purpose larger than themselves, but they also want to work for companies that are making a meaningful contribution to society—or at the very least, the local community.

The Power of the Purpose Statement

Similarly, an article titled, Why Are We Here? in the November–December 2019 issue of the *Harvard Business Review* (HBR) dives headfirst into the issue of purpose in the workplace.[2] Rather than look at workplace purpose from a societal, political, or environmental perspective, however, the article explores the power of a well-crafted purpose statement to capture the essence of the value a company provides to its customers, the very reason the company exists, and the guiding principles necessary for giving employees the sense of motivation, inspiration, and engagement they need to perform their jobs at a high level.

A workplace survey conducted by PwC's strategy consulting business, Strategy&, cited in the *HBR* article underscores the importance of purpose: When surveying 540 employees worldwide, a mere 28% of the respondents reported feeling fully connected to their company's purpose.[2] And more than half of those same respondents wouldn't even describe themselves as "somewhat" passionate and motivated by their jobs. The power of purpose was further highlighted in the same PwC survey: Respondents considered purpose to be *more than twice* as important, on average, as traditional motivators such as compensation and career advancement. The survey also found that when purpose-driven companies clearly define and articulate the value they create for their customers, employee motivation and passion doubles on average, which of course directly translates into substantial growth and profits.

What differentiates urgent care from other settings are not the medical services provided. Flu symptoms can be evaluated in a primary care office, drugstore clinic, via telemedicine, and any number of other options. Urgent care thrives by providing a "differentiated, branded healthcare destination" that becomes the patient's "first choice" when a medical need arises.

Hence, fulfilling the promise of purpose begins with the purpose statement. Rather than a vague recitation of well-worn generalities—ie, "We aim to be the industry leader" or "We provide the highest value"—a purpose statement should clearly answer the following questions:

- What is your company's reason for existing?
- What value are you giving your customers?
- How is your firm uniquely capable of providing that value?

Additionally, an effective purpose statement will achieve two objectives: clearly articulate the company's strategic objectives, and provide motivation, engagement, and inspiration to its workforce.

In short, a purpose statement is essentially a promise to your customers and employees (in urgent care's case, patients and staff), and how well you fulfill that promise will be a huge determining factor in your success.

If employees view the urgent care center as just "another rinky-dink doctor's office," it will be unsuccessful in creating the types of patient experiences that spur word-of-mouth and repeat visits. Everyone in the center must believe it is different, and better, than competing options.

Beyond the Purpose Statement: Delivering on Your Purpose

No matter how well-crafted a purpose statement is, if your company doesn't deliver on the promise the purpose statement declares, frustration, apathy, and cynicism will creep into the workforce—and your customers will definitely notice. With that in mind, here are four recommendations adapted from the aforementioned *HBR* article on how to execute your purpose in the context of an urgent care organization.

- **Focus on the right talent** – While every company wants to hire the most talented individuals in every single role, that goal may not be always realistic. There's fierce competition to attract and retain talent in any industry, especially the medical industry. An urgent care operation should therefore decide which key roles should absolutely feature the best available talent for executing its purpose, and focus its efforts there. For urgent care, this will likely be the providers and the patient care team members.
- **Develop cross-functional teams** – In an urgent

care setting, this means cross-training whenever possible. Clinicians should be able to perform some front office tasks, for example, while MAs in many states can be trained to take basic x-rays.

Beyond the valuable and cost-saving streamlining of labor expense, cross-training helps separate departments gain a clearer understanding of the other department's roles and responsibilities, and how they each work together synergistically towards the same goal—a key for the urgent care executing the company purpose at a high level.

- **Invest in your purpose** – The *HBR* article recommends investing *disproportionately* in the capabilities that are most critical for executing your company's purpose. Because the single biggest determiner of patient satisfaction in urgent care is wait time, for your center that may mean technology and systems that speed up throughput or reduce waits via digital queuing systems and online registration, for example. If exemplary patient care is your primary purpose, then perhaps functional shifting of time-consuming administrative tasks away from the front desk staff (in order free up additional time for patient care) may be the area in need of greatest investment.
- **Leaders should model the company purpose** – Urgent care leaders must ensure that their words and deeds always align with the company purpose, as the staff is always paying attention. Whether through communication, feedback, resources allocated, and/or time spent, ensuring that your leaders are the personification of your company's purpose signals strong commitment, and constantly reminds the rest of the staff of the guiding principles that form the foundation of the company's purpose.

Wayne Automatic Fire Sprinklers manufactures automatic fire suppression systems. Their purpose? It's not high-quality sensors, pipes, and sprinkler heads. Rather, its "Minutes Matter!"[3] Wayne demonstrates how, in a period of 3-4 minutes, a structure and its contents can be completely consumed. The "flash" that occurs brings temperatures of up to 1,200 F, making survival nearly impossible. Especially when it takes 6 minutes or longer for the fire department to arrive. But Wayne provides extra "time" for families to escape. The higher purpose isn't manufacturing a product—it's saving lives.

Take-Home Points

- Urgent care organizations should bear in mind that in 2020 employees want their jobs to not only align with a higher purpose larger than themselves, but also to work for companies that are making a meaningful contribution to society—or at the very least, the local community.
- A purpose statement is essentially a promise to customers and employees—in the context of an urgent care center, patients and staff. How well you fulfill that promise will play a significant role in your success, or lack thereof.
- A well-written, well thought-out purpose statement should clearly answer the following questions:
  1. What is your company's reason for existing?
  2. What value are you giving your customers?
  3. How is your firm uniquely capable of providing that value?
- An effective purpose statement will achieve two objectives:
  - Clearly articulate the company's strategic objectives
  - Provide motivation, engagement, and inspiration to its workforce
- The following four steps can help facilitate execution of your purpose:
  1. Focus on the right talent
  2. Develop cross functional teams
  3. Invest in your purpose
  4. If you're a leader, model the company purpose

Conclusion

You can try to motivate your staff with compensation and additional perks, but if they don't have a clear purpose as to why they're coming to work and why it matters, you'll constantly struggle with engaging and inspiring your workforce. And although a clear, well-articulated purpose statement is the place to start, it won't solve everything on its own. Urgent care leaders must be fully committed to facilitating the execution of that company purpose through each key role, channel, and touchpoint throughout the organization if they want to truly deliver unique value and reap the massive benefits of a purpose-driven company. ■

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Original Research

Is Pain the Fifth Vital Sign?

Higher Triage Patient-Reported Pain Score Does Not Predict Increased Admission or Transfer Rates

Urgent message: Efforts to have pain declared a "fifth vital sign" began nearly 25 years ago. Since then, several national accrediting and governmental agencies have taken up the cause of viewing pain as a distinct problem to be addressed as such. However, few data relevant to emergency and urgent care presentations exist.

MARK PRUITT, DO, YA WEN, DO, MICHAEL PALLACI, DO, and GODWIN DOGBEY, PhD

Abstract

Background: For years there has been a push to consider pain to be the "fifth vital sign" and to require documentation of pain during triage assessment. No data exist as to whether patient-reported pain scores correlate with disease severity or disposition.

Objective: To determine whether a patient's reported pain score at triage is predictive of the final disposition decision in a rural community emergency department.

Methods: This is a retrospective chart review of 26,655 patients presenting between August 1, 2015 and May 31, 2016 to a single regional medical center in Ohio. We obtained electronic data for age, sex, emergency department (ED) disposition, triage pain score, and Glasgow Coma Scale (GCS). Inclusion criteria were age ≥18 years and a documented triage pain score. Exclusion criteria were age <18, altered mental status as documented by GCS or other barriers, inability to use the numeric pain scale, and documented limitations to answering triage questions. Triage pain scores were compared based upon ultimate disposition (discharge/admission/transfer).

Results: Patients eventually discharged reported the highest triage pain scores (5.78; 95% CI of 5.72-5.84), followed by those who were transferred (5.41; 95% CI 5.08-5.74). Those who were admitted reported the lowest scores (4.33; 95% CI 4.21-4.45). Differences among all groups were statistically significant other than in those discharged vs transferred.

Conclusion: A higher triage pain score does not correlate with a higher likelihood of admission. In this data set, a lower pain score correlated with higher admission likelihood, whereas a higher pain score correlated with discharge or transfer.

Introduction

Traditionally, there have been four vital signs: temperature, heart rate, respiratory rate, and blood pressure.[1] Attempts to include pain as a fifth vital sign were first undertaken by American Pain Society President Dr. James Campbell in 1996. He stated, "Vital signs are taken seriously. If pain were assessed with the same zeal as other vital signs are, it would have a much better chance of being treated properly. We need to train doctors and nurses to treat pain as a vital sign. Quality care means that pain is measured and treated."[2] In 1999, the Department of Veteran Affairs instituted the *Pain as the 5th Vital Sign Toolkit*,[3] which recommended aggressive pain screening and treatment, viewing pain as a vital sign.

In 2000, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) began to require pain assessment and treatment as a condition for accreditation.[4,5] A study published in 2007 on pain management in the *Annals of Emergency Medicine* recommended assessing pain with the initial vital signs and implementing immediate treatment, including using opiates, based on the pain score reported.[6] Numerous articles, standards, and studies conclude that it is best practice to assess and manage pain; however, there is lack of evi-

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Table 1. Patient Characteristics		
	Number of patients	**Percentage**
Gender		
Female	8,564	54.4%
Male	7,142	45.5%
Age		
18-29	3,103	19.2%
30-39	2,555	16.3%
40-49	2,459	15.7%
50-59	2,504	15.9%
60-69	2,274	14.5%
70-79	1,660	10.6%
80-89	993	6.3%
90-99	224	1.4%
100-109	3	0.3%

dence to indicate implication of physiologic process as with the other traditional vital signs.[2-6]

Traditional vital signs (temperature, heart rate, respiratory rate and blood pressure) are measurements of basic bodily functions.[1] Deviations from normal ranges for these measures have been shown in multiple studies to have a direct association with hospital admission rates, ICU admissions, and mortality.[7-10] Patients with documented abnormal traditional vital signs in the ED are four times more likely to be admitted than those with normal vital signs.[7] Respiratory rate has been shown to be a predictor for cardiopulmonary arrest in admitted patients.[8] In one study, tachypnea with a respiratory rate of 25-29 breaths per minute correlated with a 21% mortality, with mortality increasing as respiratory rate increased.[9] The strongest predictor for ICU admission and hospital mortality from ED triage is not the presenting complaint, but abnormal vital signs.[10]

An increased emphasis on the recognition and treatment of pain has led some to recommend that a numerical rating of pain provided by the patient be added as a fifth vital sign. While the desirability of recognizing and relieving pain is intuitive and obvious, it is less clear whether the presence or severity of pain is correlated with patient outcomes or disposition, as has been proven for abnormal traditional vital signs.

Our literature search revealed no publications relating the presence or severity of pain to hospital admission, discharge, or transfer. Such a correlation would make a strong case that the importance of pain measurement is on par with the measurement of temperature, heart rate, respiratory rate, and blood pressure.

The goal of this study is to determine whether the reported pain score at the time of ED triage is predictive of hospital admission or transfer.[7-10]

Materials and Methods

An exemption was approved by the Adena Health System Institutional Review Board (IRB), approval #16-02-001.

2.1 Study Population

The population included patients presenting to our rural regional medical center ED from August 1, 2015 to May 31, 2016. Inclusion criteria were age ≥18 years and a documented triage pain score. Exclusion criteria were age <18, altered mental status (AMS) as documented by Glasgow Coma Score (GCS) or impaired cognition, inability to use the numeric pain scale, and documented limitations to answering triage questions. Records without documented pain score or disposition were excluded. There were 26,665 patients who were at least 18 years of age who presented to our ED during this time period. Of these, 15,706 met inclusion criteria and were included in the data analysis.

2.2 Study Design

This study was a retrospective chart review. Data were extracted from the electronic medical record (EMR) by an employee of the information technology department (IT), and imported into a Microsoft Excel spreadsheet without patient identifiers. The IT employee was blinded to the intent of the study. Data were imported into the spreadsheet for each patient included their age, sex, ultimate disposition (discharge/admit/transfer), numerical pain score (conventional 0-10 scale), GCS, and whether barriers to communication were documented by nursing. The data were analyzed by the third author.

Our initial goal was a sample size of at least 160 patients to reach our desired statistical power of 0.8 to detect moderate differences in pain scores among the groups with a statistical significance of $p<0.05$. The final number of patients studied was 15,706.

2.3 Data Analysis

A *one-way ANOVA* was used to examine the question of statistical difference in disposition with the mean pain scales. A *Games-Howell Post Hoc Test* served to further determine which pairs of disposition differed with statistical significance. These statistical tests were also used for age group analysis to determine statistical signifi-

Table 2. Patient Disposition			
ED disposition	Number of patients	Percentage for patients presenting to facility with pain during study period	Percentage for all patients presenting to facility during study period
Admitted	3,887	24.8%	20%
Discharged	11,264	71.7%	77%
Transferred	554	3.5%	3%

Table 3. Pain Scores Reported at Triage		
Triage pain score	Number of patients	Percentage
0	3,670	23.4%
1	188	1.2%
2	454	2.9%
3	576	3.7%
4	772	4.9%
5	1,173	7.5%
6	1,158	7.4%
7	1,536	9.8%
8	2,442	15.5%
9	1,416	9.0%
10	2,321	14.8%

cance of mean pain scales among various age groups. *Levene's test* showed that the homogeneity of variance assumption was met ($p<0.05$) for age group analysis.

Results

A total of 15,706 patients were included in this study. Their age and gender resemble the national population of ED patients per the 2015 National Hospital Ambulatory Medical Care Survey conducted by the Centers for Disease Control and Prevention,[11] with a slightly older population in this study (**Table 1**). The disposition rates in this patient population were similar to other EDs in the U.S.[11] and to the overall population at this facility (**Table 2**).

A large proportion of patients (76.6%) reported some level of pain, with most of those (64.0% of all patients; 83.6% of those with pain) reporting a pain score of 5 or greater (**Table 3**). For each of the three final disposition decisions, the mean pain score was calculated with its respective standard deviation, and a 95% confidence interval using *one-way ANOVA* (**Figure 1**). One patient was not included in the calculations due to incomplete data (unable to determine final ED disposition).

The mean pain score was found to be lowest in the admitted group (4.33; 95% CI 4.21-4.45), and highest in the discharged group (5.78; 95% CI 5.72-5.85). There were statistically significantly lower triage pain scores in patients who were admitted compared with those who were discharged and those who were transferred (**Table 4**). Pain scores were also lower in transferred patients than in discharged patients, although this difference fell just short of statistical significance.

Discussion

Pain scale ratings are based on the Numeric Rating Scale (NRS) which quantifies each patient's level of pain on a scale of 0-10.[3] The goal of this study was to determine if a higher pain scale rating predicted the final disposition of admission or transfer, indicating a higher acuity.

The pendulum has swung wildly over the last few decades in relation to the approach to pain management in the ED. Oligoanalgesia in the ED was first suggested to be a widespread problem in the 1980s,[12] and was talked and written about extensively throughout the 1990s, 2000s, and into the early 2010s.[6,13-15] Around that time, the prevalence of oligoanalgesia began to come into question.[16] And with the advent of the opioid epidemic in the U.S. over the last 5-10 years, the emphasis of the conversation has shifted from undertreatment of pain in the ED to overtreatment with opioids.[17-19]

While embraced enthusiastically by some, the emphasis on the impact of ED analgesic prescribing has been met with skepticism by others. In 2018, Axeen and colleagues reported a 471% increase in the amount of opioids prescribed from 1996 to 2012. However, ED prescriptions accounted for only 4.4% of the opioids prescribed, down from 7.4% in 1996,[20] suggesting a modest impact on the epidemic from ED prescribing.

Pain is one of the most common reasons for patients to present to the ED for treatment.[22] Thoughtful practitioners can come to very different conclusions on how best to stem the tide of the opioid epidemic while agreeing that providing analgesia, whether with opioid, nonopioid, or nonpharmacologic therapies, is an important aspect of delivering quality, compassionate care. Evidence suggests that ED providers still err on the side of prescribing analgesics for their patients in pain; Singer, et al reported in 2008 that among patients who reported pain

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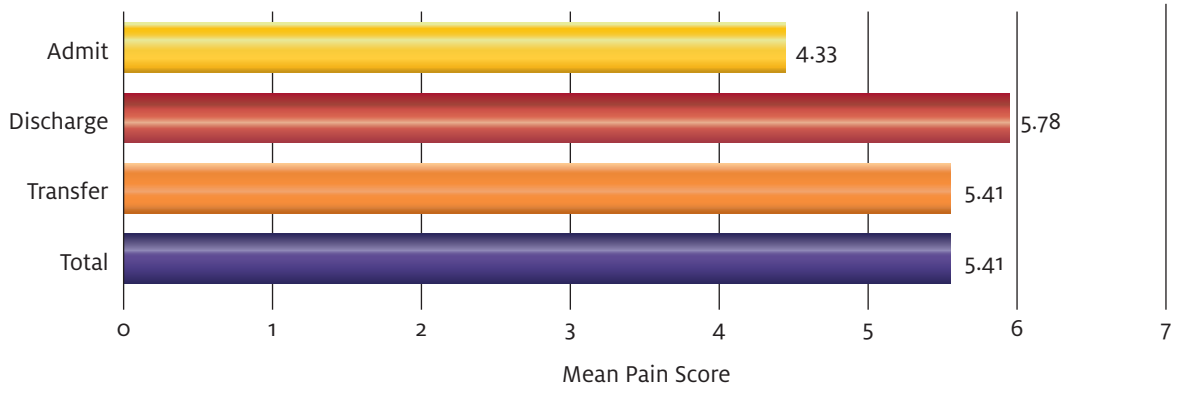
Figure 1. Mean Pain Scores Relative to Final Disposition



Disposition	SD	95% CI
Admit (n=3,887)	3.835	4.21-4.45
Discharge (n=11,264)	3.492	5.72-5.85
Transfer (n=554)	3.947	5.08-5.74
Total (*N*=15,705)	3.650	5.35-5.47

in the ED (76.6% in our study), only 51% desired analgesics. Of those who desired them, 81% received them, in addition to 34% of patients who didn't desire them.[14]

The intent of adding pain as a fifth vital sign is to emphasize the importance of its recognition and treatment. However, there is also potential for unintended negative consequences. Including a measure that is not proven to reflect disease severity among a group of measures that have reflected disease severity could lead to an overemphasis on the urgency of addressing pain relative to addressing a critical and emergent measure such as hypotension. Conversely, it could lead to a negative effect on the perceived urgency of other vital sign abnormalities if they are lumped together with the pain score.

Examples of this in medicine abound, from defining sepsis based on the nonspecific Systemic Inflammatory Response Syndrome (SIRS) criteria[21] that led some practitioners to de-emphasize the importance of "sepsis" due to the number of nonsick patients caught by the excessively wide net of the SIRS criteria, to composite endpoints in trials that include outcomes ranging from death to the inconsequential. The traditional teaching of "vital signs are vital" may prove unreliable if one of the vital signs does not correlate with disease severity or patient outcomes. In addition, referring to pain as a vital sign insinuates a need for prompt action, which could be perceived as a need for opioid analgesics. Considering Singer's data above, the ongoing opioid crisis, and the side-effect profile of opioids, being overly aggressive based on the emphasis of pain as a vital sign is likely to cause at least some level of harm, possibly outweighing the intended benefit.

An abnormality in vital signs (temperature, heart rate, respiratory rate and blood pressure) correlates with a fourfold increase in the probability of admission.[7] The results of this study did not yield the same results for the pain score, and our search of the literature found no evidence to indicate correlation with disease severity or outcomes. In this study, patients who were discharged had the highest mean pain score, while those who were admitted had the lowest. Thus, a higher pain score did not indicate a higher likelihood of admission or transfer. Instead, a higher pain score was associated with a higher likelihood of discharge and, counterintuitively, lower disease severity.

4.1 Limitations

There are several limitations to this study. While there is emphasis on attempts to place an objective measure on pain, it is well known that pain is a subjective experience, and two patients with an identical condition are likely to score their pain differently. In our retrospective data collection, we did not quantify/account for those with multiple visits or psychiatric-related complaints. We also did not account for those who had self-med-

Table 4. Comparison of Pain Scores by Disposition			
Disposition	Compared with:	Mean difference	95% Confidence Intervals
Admitted	Discharged	(-1.457)	(-1.62) - (-1.29)
	Transferred	(-1.085)	(-1.50) - (-0.67)
Discharged	Admitted	(-1.457)	1.29 - 1.62
	Transferred	0.372	(-0.03) – 0.77
Transferred	Admitted	1.085	0.67 – 1.50
	Discharged	(-0.372)	(-0.77) – 0.03

icated or received analgesics per EMS prior to arrival, or those who were on chronic analgesic therapy at home. In addition, the data were analyzed using a one-way *ANOVA*, which is most reliable when data fit a standard normal distribution; however, the pain data approximated, but was not perfectly normally distributed.

While our study focused on admission rates in assessing disease severity, there are multiple other outcomes that could be used as markers of disease severity.

We also did not account for variances in pain scores among patients with similar presentations. For example, patients with fractures may rate their pain more highly than patients with chest pain, which would not necessarily make them more likely to be admitted or to suffer a bad outcome. However, it is possible that the severity of pain among patients presenting specifically with chest pain or specifically with fractures could reflect disease severity. In addition, patients with certain high-risk complaints such as altered mental status would be more likely to be admitted or transferred, and would also be more likely to be excluded than discharged patients due to the inability to record their pain score.

Furthermore, this study was conducted at a single facility in a rural community with one of the highest rates of opioid abuse in the U.S., which sees a limited number of trauma patients and a disproportionately large number of patients who are uninsured. It is also possible that older people, who presented in slightly higher numbers in our population than the national average, may have a higher frequency of admission due to multiple comorbidities, but may report a lower level of pain due to cultural and generational norms. Similarly, the community in which the study was conducted is disproportionately Caucasian. These factors may limit the external validity of our findings. We could not account for treatment variability among providers and the possible subsequent effect on disposition. We also did not account for patients who may have "bounced back" on this visit or at a later time with a higher acuity.

Conclusion

In this study, self-reported pain, unlike traditional vital signs, does not appear to predict more serious illness or to predict emergency department disposition. ■

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ABSTRACTS IN URGENT CARE

- COVID-19: The Long View
- Quarantine Duration in Suspected COVID-19
- Bedside Ultrasound Use with COVID-19
- Fluoroquinolones and Arrhythmia
- Isopropyl Alcohol and Nausea Relief
- Patient Preferences Re: the ED vs Urgent Care

YIJUNG RUSSELL, MD

The Nuts and Bolts of COVID-19

***Key Points:** Most patients with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19, experience mild URI symptoms; however, the virus tends to cause disproportionately severe illness in older and chronically ill adults. Treatment is only supportive, although clinical trials of several antiviral agents are ongoing. Social isolation and proper hygiene practices remain our best hope for containment and limiting global health impact.*

Citation: Cascella M, Rajnik M, Cuomo A, et al. Features, evaluation and treatment Coronavirus (COVID-19). 2020 Mar 8. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. http://www.ncbi.nlm.nih.gov/books/NBK554776/

Relevance: Urgent care clinicians need to become expert on all things related to COVID-19, as there will be many patients with symptoms and/or concerns about this virus for the foreseeable future. Additionally, a robust and current understanding of the science of the virus and epidemic is important to protect ourselves and loved ones.

Study Summary: This review article covers all aspects of the SARS-CoV-2 virus and the COVID-19 pandemic and is available for free through PubMed for all readers. Some of the more salient clinical pearls from this summary article include:
<1% of cases occurred in children <9 years. There have been no fatalities (to date) in this group.

Yijung Russell, MD practices in the Department of Emergency Medicine at Amita Health Resurrection Medical Center in Chicago.

The risk of death in individuals over 80 is greatest (~15%). Mild illness, which is most common, is indistinguishable from the common cold; however, patients are more likely to have cough and fever instead of sore throat and nasal congestion. Dyspnea and respiratory failure tend to occur late (>1 week) after symptom onset.

Polymerase chain reaction testing is still not widely available; however, more commonly available labs can show a pattern suggestive of COVID-19. These include lymphopenia, mildly elevated transaminases, mildly elevated LDH (lactate dehydrogenase), and C-reactive protein. ■

Challenges in Determining Duration of Quarantine in Suspected Cases of COVID-19

***Key Point:** Understanding when it is safe to de-isolate patients with confirmed or suspected COVID-19 remains unclear. Use of an algorithm such as the one proposed by the authors of this editorial offers a systematic and prudent approach for clinicians. Clinicians should err on the side of caution and recommend patients self-quarantine until fevers have resolved for several days and at least 1 week post onset of respiratory symptoms.*

Citation: Tay JY, Lim PL, Marimuthu K, et al. De-isolating COVID-19 suspect cases: a continuing challenge. *Clin Infect Dis.* 2020; Feb 26. [Epub ahead of print]

Relevance: The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a novel human virus responsible for the COVID-19 pandemic. Most cases, especially in younger patients, are mild and require only supportive care. However, a common, practical question on patients' minds with confirmed or suspected infection is how long they remain infectious and need to be self-quarantined. This question is also of great importance from a public health standpoint in regard to mitigating the duration and overall morbidity of this virus.

Study Summary: These authors reviewed 991 suspected cases of COVID-19 in Singapore. They combined clinical features of illness, polymerase chain reaction (PCR) testing results, and imaging findings to determine the duration of likely infectivity. For safe de-isolation of suspected cases, they recommend *at least* 24 hours of defervescence and *at least* 7 days post onset of symptoms as minimal criteria. For patients with a positive test for another respiratory pathogen (eg, influenza, RSV, pneumococcus), isolation can be guided by need according to the pathogen identified *unless* there is also known COVID-19 exposure because *dual infections can occur in 10% to 20% of cases*. Additionally, even patients with negative PCR testing can have COVID-19 because of the relatively low sensitivity of this test. Overreliance on a single negative PCR swab can provide false reassurance to the clinician and patient. ■

COVID-19 Findings on Bedside Ultrasound

Key Point: Pulmonary effects of COVID-19 result in predictable findings on bedside ultrasound exam.

Citation: Peng Q, Wang X, Zhang L. Findings of lung ultrasonography of novel corona virus pneumonia during the 2019–2020 epidemic. *Intensive Care Med* (2020).

Relevance: Bedside ultrasound, commonly referred to as point-of-care ultrasound (POCUS), is a useful tool in urgent care, as it offers abundant information in a setting where objective data is quite limited. Thoracic POCUS can reveal characteristic findings in cases of COVID-19. Such testing is highly valuable because PCR testing is limited in availability and generally takes days for results to return when achievable.

Study Summary: These investigators performed lung POCUS on 20 patients with confirmed COVID-19 pulmonary disease using the 12-zone method. The authors do not report the sensitivity or specificity of these findings, as this was a pilot study. However, they do report identifying five findings on lung POCUS which correlated with COVID-19:

- Thickening of the pleural line and/or pleural irregularities
- B lines in a variety of patterns ranging from focal to confluent
- Heterogenous patterns of consolidation including multifocal, trans, and nontranslobar with occasional air bronchograms
- A lines were common during the recovery phas1e
- Pleural effusions were relatively rare

POCUS can serve as an adjunct to chest radiography and is more practical, cost effective, and widely available for UC clinicians compared with chest computed tomography. ■

"Understanding what patients value in their visit to an urgent care center vs the ED can help to improve patient care. Online platforms such as Yelp provide data that can be analyzed to characterize patient values."

Fluoroquinolone Use Is associated with Serious Arrhythmias

Key point: Use of fluoroquinolones such as ciprofloxacin is associated with ventricular arrhythmias and sudden cardiac death

Citation: Porta L, Lee MG, Hsu WT, et al. Fluoroquinolone use and serious arrhythmias: A nationwide case-crossover study. *Resuscitation*. 2019;139:262-268.

Relevance: Fluoroquinolones such as ciprofloxacin and levofloxacin offer broad-spectrum coverage and are used to treat a wide variety of infections including respiratory, genitourinary, and soft tissue infections. However, two fluoroquinolones have been withdrawn from the market due to associations with dangerous arrhythmias. This study aims to establish an association between currently prescribed fluoroquinolones and arrhythmias.

Study Summary: In this case-crossover study, the authors looked at cases of serious arrhythmias associated with fluoroquinolone use in 2 million randomly selected beneficiaries of Taiwan's National Health Insurance. Serious arrhythmias were defined as sudden cardiac death or ventricular arrhythmias receiving IV antiarrhythmics, defibrillation, or CPR. Fluoroquinolone prescription for at least 3 days during a 30-day exposure period prior to an arrhythmic event was compared with a control 30-day period with no fluoroquinolone use. When results were adjusted for time-varying confounders, the odds ratio for a serious arrhythmic event after fluoroquinolone use was 1.48 (95% CI 1.18, 1.86). ■

Inhaled isopropyl alcohol offers nausea relief

Key point: Inhaling isopropyl alcohol offers significant nausea relief and improved patient satisfaction score when compared with placebo.

Citation: Beadle KL, Helbling AR, Love SL, et al. Isopropyl alcohol nasal inhalation for nausea in the emergency department: a randomized controlled trial. *Ann Emerg Med*. 2016;68 (1):1-9.e1.

Relevance: Nausea and vomiting account for approximately

5 million ED visits per year in the United States. Isopropyl alcohol inhalation has been shown to be effective in relieving nausea postanesthesia. This study aims to find if this method of nausea relief is also effective in all other causes of nausea.

Study summary: In this randomized, double-blind, placebo-controlled trial, 84 patients in an urban tertiary care ED were randomized to receive either nasally inhaled isopropyl alcohol or normal saline solution. Patients were asked to score their satisfaction and reduction in nausea 10 minutes after treatment. At 10 minutes postintervention, median satisfaction score in the isopropyl alcohol arm vs placebo arm was 4 vs 2 (95% CI 2, 2) on a 5-point Likert scale while median nausea response scale score was 3 vs 6 (95% CI 2, 4) on an 11-point verbal numeric response scale (0=no nausea, 11=worst nausea). ■

Patients Like the ED and Urgent Care Centers for Different Reasons

Key point: Different reasons drive patients to give 1- or 5-point ratings on Yelp for EDs and UCs.

Citation: Agarwal AK, Mahoney K, Lanza AL, et al. Online ratings of the patient experience: emergency departments versus urgent care centers. *Ann Emerg Med.* 2019;73(6):631-638.

Relevance: Urgent care centers have been expanding at a rapid pace. It is important to understand what patients value in their visit to an urgent care center vs the emergency department to improve patient care and the patient experience. Online platforms such as Yelp provide data that can be analyzed to characterize patient values.

Study summary: In this retrospective analysis of over 100,000 Yelp reviews, the authors focused on the extreme ends of reviews (1- and 5-star reviews) to identify drivers of high or low satisfaction among ED and UC visits by identifying words associated with these ratings. Overall, median rating of ED vs UC was 2 vs 5 stars, respectively. Important themes in both ED and UC centers in 5-star reviews included comfort, professionalism, clean facilities, and friendly staff. Important themes in both ED and UC centers in 1-star reviews included poor communication, waiting, billing, and pain management. Themes unique to UC 5-star reviews included pharmacy refills or prescriptions. Themes unique to UC 1-star reviews included lack of confidence and reception experience. ■

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

Guttate Psoriasis: An Uncommon Cause of a Rash

Urgent message: While skin-related complaints are not uncommon in the urgent care setting, with psoriasis being a relatively common source, evaluation and diagnosis of a rash can be challenging. This is especially true in the case of a rare variant like guttate psoriasis.

CHASITY L. FALLS, MS, PA-C

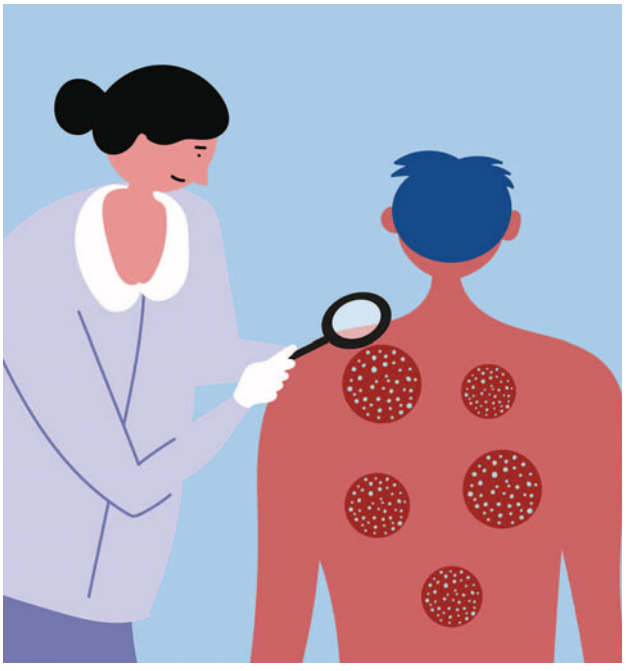
Introduction

Psoriasis is a common condition. However, the guttate variant is rarer, commonly affecting children and young adults less than 40 years of age and accounting for 4% of all clinical types of psoriasis.[1,2] Other phenotypes of psoriasis include psoriatic arthritis, plaque-type psoriasis, and pustular psoriasis.[3]

The etiology of guttate psoriasis includes a genetic predisposition, predominantly in children and young adults. It is commonly preceded by a streptococcal infection and may develop within 2-3 weeks with or without treatment. It manifests with multiple small round papules and scaly plaques, usually located on the trunk and extremities. Here, we present the etiology, clinical findings, and treatment recommendations for guttate psoriasis and discuss the importance of a thorough history and physical for diagnosis of guttate psoriasis.

Case Presentation

A 28-year-old male with no past medical history presented to urgent care with a complaint of a rash that began 3 weeks prior. He noticed it first on his face, shortly after swimming in a lake. A week later he saw an area of redness to his right groin; at 2 weeks it developed on his hands and arms, followed by both knees and lower extremities. These lesions were described as looking similar to those on his face, which was different from those on the right groin region. It was mildly pruritic but without pain, fevers, sore throat, cough or drainage.



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The patient did admit to an upper respiratory infection just before the onset of symptoms; he said it resolved spontaneously and he had not sought previous evaluation or treatment. There was no contact with any new items, food, or medications. The patient's sexual history was positive for chlamydia, for which he received treatment 2 years prior, and his family medical history was noncontributory.

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Differences Among Phenotypes of Psoriasis		
Phenotype	**Prevalence in psoriasis cases**	**Characteristics**
Guttate psoriasis	4%[1,2]	Presents on the trunk initially and frequently presents 2-3 weeks after URI with group A beta-hemolytic streptococci; more likely to be pruritic
Psoriatic arthritis	25% of those with psoriasis skin symptoms[3]	Associated with plaque-type psoriasis; an erosive, polyarticular disease with joint dysfunction and loss of movement; usually hands and feet
Plaque-type psoriasis	90%[3]	A higher degree of scaling compared with guttate psoriasis[2]; affects the extensor surfaces of the knees, elbows, scalp, and trunk
Pustular psoriasis	Uncommon in the U.S.	Blisters and pustules located on the palms and soles or diffusely over the body[3,4]

Exam

- Temperature: 99.6° F
- Respiratory rate: 18
- Heart rate: 63
- Blood pressure: 108/68
- Pulse oxygen: 99% on room air

Physical exam revealed an alert and well-developed male in no acute distress. Evaluation of his oropharynx revealed erythema to the peritonsillar region bilaterally without tonsillar edema or exudates. There was no uvula erythema or edema and no intraoral lesions on the exam. Dermatological findings were significant for numerous disseminated erythematous, round papules ranging from 1 mm to 15 mm in size on the face with sparing of the palms and soles. Silvery plaques covered the face, as well as bilateral hands and knees. There was a sizeable erythematous plaque noted to the right groin. The exam did not demonstrate lymphadenopathy or signs of a secondary bacterial infection.

Differential Diagnosis/Decision Making

The differential diagnosis included secondary syphilis, pityriasis rosea, tinea corpus, and psoriasis. The patient did have a remote history of a treated sexually transmitted infection (STI); however, he is sexually monogamous and utilizes protection. The presentation of his rash did not involve the palmar or plantar surfaces; therefore, secondary syphilis was less likely. Pityriasis rosea generally presents with a recent upper respiratory infection, resembling the patient's history. However, pityriasis rosea has a salmon-colored herald patch that presents first, followed by a pattern of macules and papules in the shape of a Christmas tree and typically spares the face, hands, and feet, and the patient presented otherwise. Tinea corporis is an erythematous and scaly plaque; unlike our patient, tinea presents with usually one large annular lesion and central clearing.

Tests

A rapid strep test was positive.

Diagnosis

Streptococcal pharyngitis and guttate psoriasis.

Treatment

Treatment for the patient included a 10-day course of amoxicillin for streptococcal pharyngitis, as well as triamcinolone topical cream for guttate psoriasis. Amoxicillin is the current recommended standard-of-care treatment for a streptococcal infection. Topical corticosteroid cream is useful in guttate psoriasis by providing anti-inflammatory, antiproliferative, immunosuppressive, and vasoconstrictive effects.

Follow-Up

Upon follow-up, the patient stated that he had completed the course of amoxicillin and continued with the triamcinolone cream with clearing of the rash.

Discussion

Guttate psoriasis commonly affects children and young

adults less than 40 years of age and is uncommon in the United States, accounting for 4% of psoriasis cases; however, it is the second most common variant of psoriasis in children.[1,2] It occurs in genetically susceptible patients and usually is preceded by a trigger that includes streptococcal pharyngitis, a life stressor, skin injury, drugs, or exposure to ultraviolet light.[3] Sixty-three percent of guttate psoriasis cases are known to have been preceded by group A beta-hemolytic streptococcal infection within 1 week, and up to 1 month.[1,2] One-third of patients diagnosed with guttate psoriasis have a family history of psoriasis in a first-degree relative.[2]

Classic characteristics include an acute onset in those without psoriasis or in patients with a known history of chronic plaque psoriasis. Guttate psoriasis appears as multiple scaling round "tear-drop" papules and tends to favor the trunk and extremities.[4] It has been noted that in children guttate psoriasis will appear in uncommon locations such as the face and genital-anal region.[4]

Treatment is based on the site and extent of the disease. Providers need to take into account the patient's motivation level, health insurance status, availability of specialized treatment centers, age, and overall health. The first step is removing triggers and treating infections. Topical corticosteroids are beneficial; however, depending on the distribution and extent of the lesions, this may be difficult.[2] Topical emollients can be used to help retain moisture in patients with pruritus.[2]

First-line treatment for widespread guttate psoriasis (>5% total body surface) is a dermatology referral for UV therapy.[1,2] Ultraviolet B is recommended for extensive and nonresponsive rashes, but natural light exposure is beneficial and more economical.[1] Topical vitamin D topical analogs may also be used.

Outcomes are variable; in some patients, the rash in guttate psoriasis may progress into chronic plaque psoriasis, while others will spontaneously resolve at the 3-month mark with long term remission.[1,5] One-third of children diagnosed with guttate psoriasis will develop chronic plaque psoriasis later in life.[4]

Figure 1.

Figure 3.

Figure 2.

Figure 4.

Conclusion

Guttate psoriasis often follows a trigger such as an infection and is managed by treating the underlying process as well as topical steroids and light therapy. ■

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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 55-Year-Old Female with Hip Pain

Figure 1.

Case

The patient is a 55-year-old woman who presents with what she calls minor pain in her left hip. She denies any trauma, and insists the pain "isn't that bad." She's only seeking care as a precautionary measure in advance of a family camping trip.

View the image taken 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

- Bony dysplasia
- Chondroid lesion
- Fibrous cortical defect
- Osteoblastoma
- Osteoid osteoma
- Synovial herniation pit of the femoral neck

Diagnosis

The correct diagnosis is synovial herniation pit of the femoral neck. These are formed by mechanical pressure from the thick anterior hip joint capsule during repetitive hip flexion and extension, which pushes the synovium or soft tissues into the cortical defects in anterior femoral neck. Femoroacetabular impingement may also have a role in their origin. The lesions are acquired and usually stable but can grow over a period of time. They could be symptomatic in a minority of patients, but typically are incidental findings on the radiographs of asymptomatic patients.

Learnings/What to Look for

- Radiographically, they are visualized as 3 mm to 15 mm diameter round or oval lucent lesions with thin sclerotic margins typically located in anterosuperior femoral neck and 1 cm below the superior neck cortex
- On CT they are low attenuation cortical and subcortical lesions with thin sclerotic margins
- On MRI, the lesion is seen as a smoothly marginated cortical and subcortical mass with low signal on T1 and bright fluid signal on T2 images
- Surrounding bone marrow signal remains normal in bulk of the patients. In symptomatic herniation pit, edema may be present in the surrounding bone marrow

Pearls for Urgent Care Management and Considerations for Transfer

- No therapy is indicated in asymptomatic lesions
- Symptomatic patients with MRI-documented bone marrow edema surrounding the herniation pit are treated with intra-articular steroid injection

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

A 54-Year-Old Female with Nonproductive Cough and Rhinorrhea

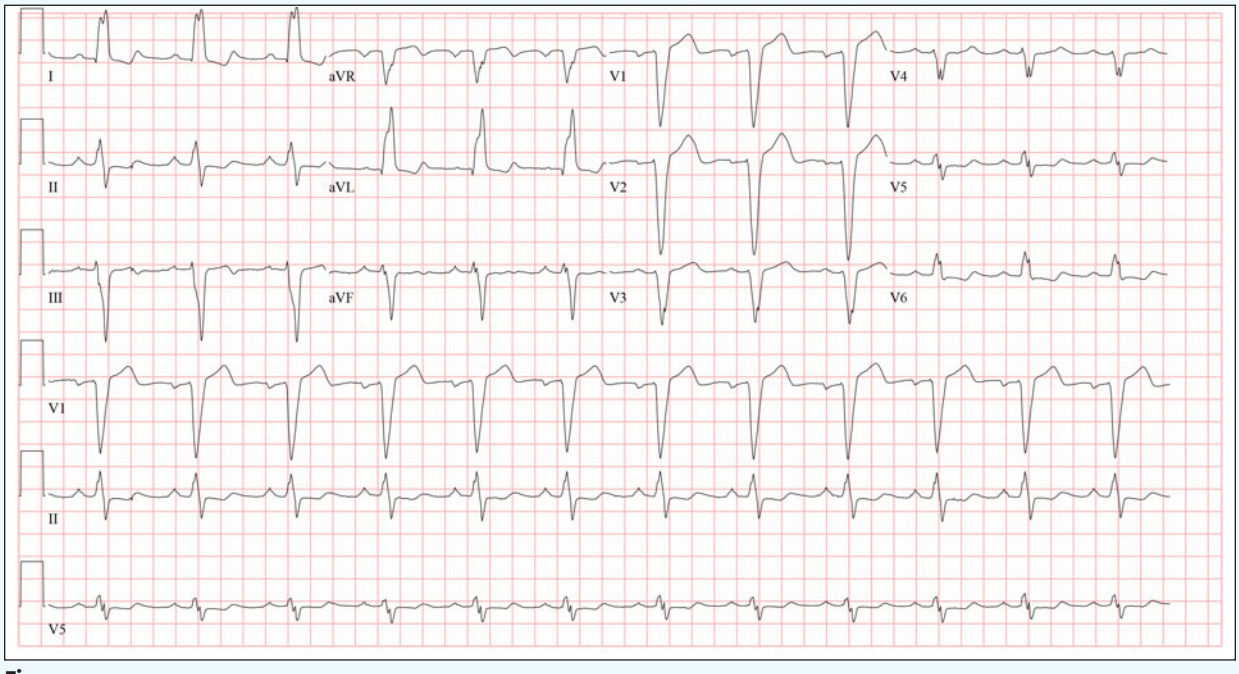

Figure 1.

Case

The patient is a 54-year-old female woman who presents to urgent care with a 3-day history of nonproductive cough with associated rhinorrhea. She does endorse some chest pain after coughing episodes, which resolve with NSAIDs. She otherwise denies nausea, vomiting, diaphoresis, or exertional symptoms. Personal medical history is remarkable for hypertension.

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

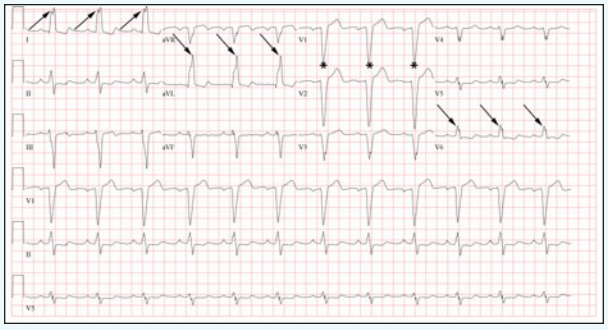

Figure 2. The wide QRS (>120 msec), dominant S wave in V1 (asterisks), broad notched R wave in the lateral leads (arrows), and absent q waves in lead I, V5, and V6 indicates the presence of a left bundle branch block.

Differential Diagnosis

- ST-Elevation MI (STEMI)
- Left ventricular hypertrophy (LVH) with strain
- Hyperkalemia
- Left bundle branch block (LBBB)
- Ventricular tachycardia

Figure 3. The Normal His-Purkinje Conduction System

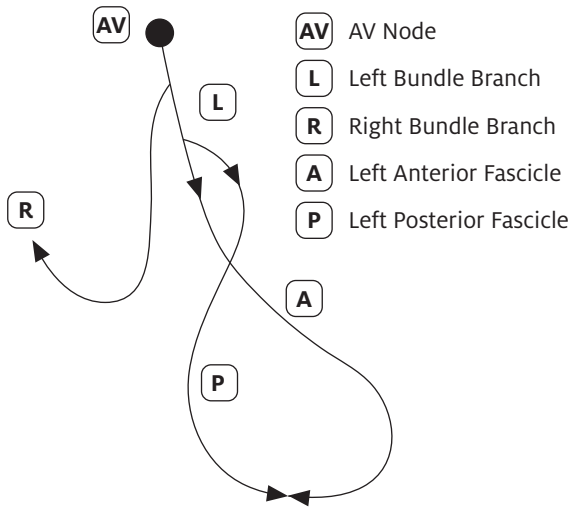

Image used with permission from ddxof.com

Diagnosis

This patient was diagnosed with left bundle branch block.

The ECG reveals a regular, wide-complex, sinus rhythm at a rate of 75 beats per minute. The wide QRS complex (>120 msec), dominant S wave in V1, broad-notched R wave in the lateral leads (I, aVL, V6), and left axis deviation indicate the presence of an LBBB.

Table 1. Abbreviated electrocardiographic criteria for complete LBBB[4]

- QRS duration ≥120 msec in adults
- Broad notched or slurred R wave in leads I, aVL, V5, and V6
- Absent q waves in leads I, V5, and V6, but in the lead aVL, a narrow q wave may be present in the absence of myocardial pathology
- R peak time >60 msec in leads V5 and V6 but normal in leads V1, V2, and V3
- Associated features:
  - ST and T waves usually opposite in direction to QRS
  - Left axis deviation

Our current conceptual understanding of the trifascicular framework of the intraventricular conduction system derives from a series of seminal papers by Rosenbaum, et al from 1969 to 1973. These works elucidated three conduction terminals—one in the right ventricle (the right bundle) and two in the left ventricle (the anterior and posterior divisions of the left bundle) (**Figure 3**).[1-3] Conduction disturbances of any or all three conduction terminals may result from structural abnormalities of the His-Purkinje system caused by necrosis, fibrosis, calcification, infiltrative disease, electrolyte disturbances, or impaired vascular supply.[4] When conduction is impaired to both left ventricular terminals, the result is an LBBB. Electrocardiographically, the presence of an LBBB can be established via the criteria listed in **Table 1**.

Historically, LBBB was thought to prevent accurate recognition of acute myocardial infarction, resulting in poor allocation of reperfusion therapy.[5] In fact, for many years (until 2013), new or presumed new LBBB was considered equivalent to an ST-elevation myocardial infarction.[6] We are now able to utilize the

Table 2. Modified Sgarbossa criteria for determining myocardial infarction in the presence of a LBBB[7]

- ST-segment elevation ≥1 mm and concordant with the QRS in at least 1 lead
- ST-segment depression ≥1 mm in any of leads V1–V3
- Excessively discordant ST-segment elevation in any one lead
  - Defined by most negative ratio of ST/S and at least 1 mm of STE
  - Cut point for ST/S ratio < -0.25

Note that the presence of any one of the three criteria rules in for myocardial infarction.

THE RESOLUTION

Figure 4.

Panel A shows concordant ST-segment elevation. Panel B shows concordant ST-segement depression in leads V1, V2, or V3. Panel C shows excessively discordant ST-segment elevation. *Images used with permission from ddxof.com.*

Sgarbossa/modified Sgarbossa criteria to help identify underlying myocardial infarction in patients with symptoms of acute coronary syndrome and an LBBB (**Table 2**, **Figure 4**).

The patient in our scenario does not meet any Sgarbossa criteria, nor does the clinical presentation suggest acute coronary syndrome. She has an LBBB, which indicates significant conduction disease, but urgent action is not indicated, and this patient is appropriate for outpatient referral to a cardiologist.

Learnings/What to Look for

- Electrocardiographic findings of LBBB include a wide QRS and a notched or slurred R wave in leads I, aVL, V5, and V6 (see **Table 1** for additional criteria)
- Apply Sgarbossa/modified Sgarbossa criteria in patients with symptoms of acute coronary syndrome with LBBB
- Always compare with prior ECGs

Pearls for Urgent Care Management and Considerations for Transfer

- Acutely symptomatic patients with symptoms concerning for acute coronary syndrome should be transferred to an emergency department immediately for evaluation
- A new LBBB in and of itself does not indicate the need for emergent reperfusion; however, the provider must always consider the entire clinical picture

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Acknowledgment: *Case presented by Jonathan Giordano, DO, MS.*

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INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 3

A 72-Year-Old Female with Lesions on Her Lower Legs

Figure 1.

Case

The patient is a 72-year-old woman who complains of multiple skin lesions on her lower legs. She says she first noticed them several months ago, appearing in a net-like pattern, then becoming painful ulcerations, and finally leaving atrophic scars. She is concerned because she had already had several bouts of deep vein thrombosis.

View the image taken 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

- Livedoid vasculopathy
- Stasis ulcer
- Steroid atrophy
- Erythema ab igne

Diagnosis

This patient was diagnosed with livedoid vasculopathy (LV), also known as livedoid vasculitis. LV is a rare condition, with an estimated incidence of 1:100 000 per year. Incidence increases during summer months and in pregnancy. It tends to affect middle-aged individuals and has a female-to-male ratio of 3:1.

Learnings/What to Look for

- LV is characterized by hyalinization of vessels, causing thrombotic disease with or without ulceration, which may progress to end-stage atrophic scarring known as atrophie blanche on the lower legs
- Pathogenesis of LV is not well understood, but it has been suggested that the occlusion of dermal vessels with fibrin thrombi may contribute to its development
- LV can be idiopathic

Pearls for Urgent Care Management and Considerations for Transfer

- The main goals of treatment are pain management and prevention of ulceration and progressive scarring
- Treatment with antiplatelet drugs, systemic anticoagulants, and fibrinolytic therapy has been shown to be effective. Colchicine, hydroxychloroquine, vasodilators, intravenous immunoglobulin, folic acid, immunosuppressive therapy, and supportive measures may also be beneficial

Acknowledgment: *Images and case courtesy of VisualDx (www.VisualDx.com/JUCM).*

Prescribing Pharmacists: Cheaper and More Accessible Than Urgent Care?

Urgent message: As states move forward with legislation enabling pharmacists to prescribe, not just dispense, the urgent care industry must consider the implications on competition, collaboration, and public health.

ALAN A. AYERS, MBA, MAcc

On February 11, 2020, the Virginia legislature passed bills HB 1506 and SB 1026, respectively, enabling pharmacists to prescribe medications, not just dispense them (see **Table 1** for full text). The Virginia Senate bill, which is more comprehensive than the House bill, extends pharmacist prescribing to all vaccinations; TB testing; drugs used to treat influenza, *H pylori*, strep, and urinary tract infections; and PrEP/PEP for HIV. Diagnosis would occur by point-of-care testing in the store. The Senate bill also includes *"Drugs for which the patient's health insurance provider requires a prescription for coverage"* which, taken literally, extends a pharmacist's prescribing power to... *all drugs*.

As of the writing of this article, the bills are in the Education & Health Committee for reconciliation. Protocols and standards will then have to be defined by the Boards of Medicine and Pharmacy before pharmacists can begin prescribing.

Not only does this type of legislation create an entirely new class of medical provider, but it also raises concerns for public health and safety, while also proposing a radical change in how minor medical conditions are diagnosed and treated.

Supporters of pharmacist prescribing typically offer it as a solution to high healthcare costs, a shortage of medical providers in primary care specialties, and historic access barriers to basic care. "Accountable care" entails aligning a patient's needs with the most cost-effective solution for a medical condition. Undergoing instant testing and picking up a prescription in a retail drugstore should be less expensive than an urgent care visit that entails a standalone facility, marketing costs, capabilities to diagnose and treat a range of conditions, technology to maintain records and bill insurance, and a skilled clinical crew to deliver basic services.

"Most states allow some form of pharmacist prescribing, but it almost always pertains to health concerns that do not require a diagnosis. For example, 48 states and Washington, DC allow pharmacists to dispense naloxone without a physician's prescription."

Rx pundits would emphasize that pharmacists have a heavy education load—a PharmD can take 5 to 8 years to obtain—and that pharmacists take more pharmacology and pharmacotherapeutic classes than any other healthcare professional. But while pharmacists are undoubtedly *the experts* in body chemistry, they have not been trained in diagnosis, including conducting a history and physical and recognizing other complicating factors apart from a positive lab test.

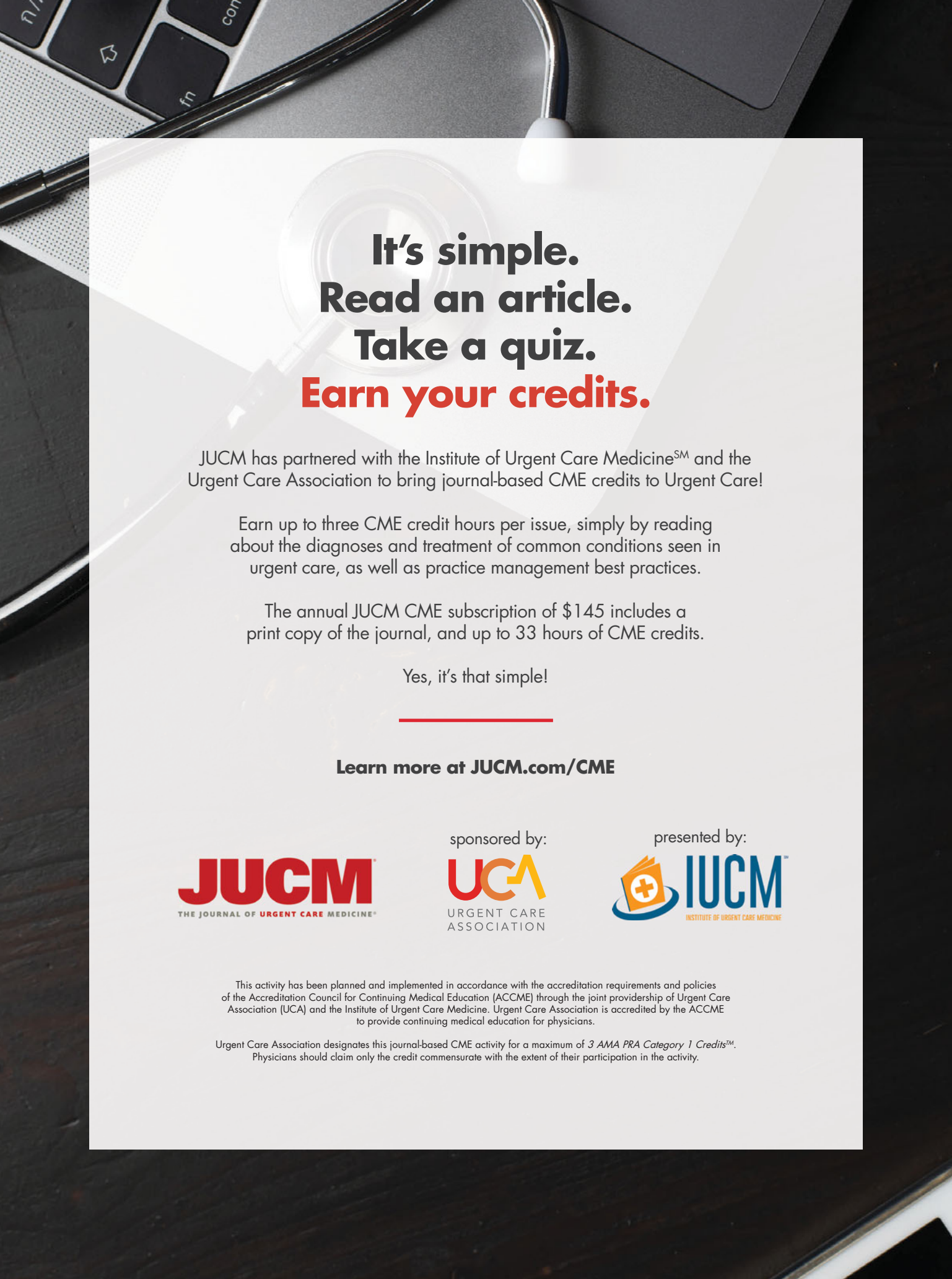
Alan A. Ayers, MBA, MAcc is Chief Executive Officer for Velocity Urgent Care and is Practice Management Editor of *The Journal of Urgent Care Medicine*.

Table 1. Sections of Legislation Passed in the Commonwealth of Virginia in February 2020, Detailing the Substances a Pharmacist May Prescribe

HOUSE BILL NO. 1506	SENATE BILL NO. 1026
*§ **54.1-3303.1**. Initiating of treatment with and dispensing and administering of controlled substances by pharmacists.* *A. Notwithstanding the provisions of § **54.1-3303**, a pharmacist may initiate treatment with, dispense or administer the following drugs and devices to persons 18 years of age or older in accordance with a statewide protocol developed by the Board in collaboration with the Board of Medicine and the Department of Health and set forth in regulations of the Board:* *1. Naloxone or other opioid antagonist, including such controlled paraphernalia, as defined in § **54.1-3466**, as may be necessary to administer such naloxone or other opioid antagonist;* *2. Epinephrine;* *3. Injectable or self-administered hormonal contraceptives, provided the patient completes an assessment as recommended by the American College of Obstetrics and Gynecology;* *4. Prenatal vitamins for which a prescription is required; and* *5. Dietary fluoride supplements, in accordance with recommendations of the American Dental Association for prescribing of such supplements for persons whose drinking water has a fluoride content below the concentration recommended by the U.S. Department of Health and Human Services.*	*§ **54.1-3303.1**. Prescribing, dispensing, and administering of controlled substances by pharmacists.* *A. Notwithstanding the provisions of § **54.1-3303**, a pharmacist may prescribe, dispense, and administer the following drugs and devices in accordance with a statewide protocol developed by the Board in consultation with the Board of Medicine and set forth in regulations of the Board:* *1. Vaccines included on the Immunization Schedule published by the Centers for Disease Control and Prevention;* *2. Dietary fluoride supplements, in accordance with recommendations of the American Dental Association for prescribing of such supplements for persons whose drinking water has a fluoride content below the concentration recommended by the U.S. Department of Health and Human Services;* *3. Naloxone or other opioid antagonist, including such controlled paraphernalia, as defined in § **54.1-3466**, as may be necessary to administer such naloxone or other opioid antagonist;* *4. Epinephrine;* *5. Drugs approved by the U.S. Food and Drug Administration for tobacco cessation therapy, including nicotine replacement therapy;* *6. Tuberculin purified protein derivative for tuberculosis testing;* *7. Injectable or self-administered hormonal contraceptives;* *8. Drugs or devices for the treatment of diseases or conditions caused by infection with influenza virus,* Helicobacter pylori *bacteria, or group A* Streptococcus *bacteria or a urinary tract infection if such infection is confirmed by a positive result on an approved test administered by the pharmacist. If an approved test administered by the pharmacist is negative, the pharmacist shall not prescribe, dispense, or administer such drugs or devices and shall refer the patient to a healthcare provider for diagnosis and treatment;* *9. Drugs for the prevention of human immunodeficiency virus, including controlled substances prescribed for pre-exposure and post-exposure prophylaxis pursuant to guidelines and recommendations of the Centers for Disease Control and Prevention;* *10. Prenatal vitamins for which a prescription is required if a pregnancy test confirms the pregnancy of the person to whom the vitamins are dispensed; and* *11. Drugs for which the patient's health insurance provider requires a prescription for coverage.*

Prescribing medication is only one small piece of what an urgent care provider does. So, influenza can be detected by a test—and a prescription written. But what happens when the patient also has pneumonia? Pulse ox is low, respiratory rate is high and labored, and no air movement in the bases? How is this patient, diagnosed by an instant test, going to be "treated" by a pharmacist in a drugstore?

Most states allow some form of pharmacist prescribing, but it's almost always pertaining to health concerns that do not require a diagnosis. For example, 48 states and Washington, DC allow pharmacists to dispense naloxone without a physician's prescription. Patients in 10 states, including Oregon and California, can walk up to a pharmacy counter, fill out a health questionnaire, get their blood pressure checked, and, if every-



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thing's okay, obtain contraception from the pharmacist. While in other states, pharmacists can extend, adjust and/or substitute physician prescriptions, particularly for chronic conditions.

Separately, state boards of pharmacy have been lobbying for "provider status" which would include pharmacists in health insurance reimbursement for services beyond Rx dispensing. A *provider* in the scope of the Social Security Act is a medical professional who is able to *bill* (ie, be reimbursed by) the Medicare program, usually under Part B, for services rendered. While pharmacists have been able to get reimbursed for the meds they dispense, in the past they've not had a mechanism to charge for the "professional services" they offer. Getting recognized as providers from a billing perspective is another necessary step toward pharmacists becoming full-fledged medical practitioners.

States like Montana, New Mexico, North Carolina, North Dakota, and California give pharmacists midlevel practitioner status, allowing them to enter into a collaborative practice agreement with any physician in order to initiate and modify any type of drug therapy, including controlled substances. Collaborative practice agreements (CPAs) are legal documents that establish a relationship between pharmacists and collaborating physicians. With this midlevel practitioner status, patients can now walk into a pharmacy for immediate attention concerning drug-managed conditions like chronic pain.

For urgent care operators, for whom the majority of patients they see are wanting treatment for low-acuity conditions such as upper respiratory infections, urinary tract infections, and minor skin conditions, a pharmacist with dispensing privileges would constitute a new class of competition. Consumers who could approach a pharmacy counter for a diagnosis and prescription for a minor condition could save significant time and money by not visiting an urgent care center.

The move towards pharmacist prescribing does seem to be driven more by corporate interests (ie, revenue) than the desires of pharmacists themselves. For the past several years, major pharmacy chains have been remodeling stores to move pharmacists from behind the counter to a "front-and-center desk" where they can interact more directly with the public, for both counseling and also to administer services.[1] It's only logical these investments have been in anticipation of legislation that would expand the pharmacist's capability. Pharmacists are seen by retailers as an expensive, well-trained, but underutilized resource who serve the following functions:

- Dispenser
- Gatekeeper
- Drug information expert
- Patient advocate
- Clinician
- Prescriber
- Diagnostician
- Educator

How would giving pharmacists the authority to prescribe change the dynamic between pharmacist and patient?

Supporters of pharmacist prescribing claim it benefits patients by:	The chain pharmacy lobby also claims prescribing will advance the pharmacy profession through:
• Improved patient outcomes • Improved patient education and adherence • Decreased adverse drug events (increased patient safety) • Increased patient access to medicines	• Better use of pharmacists' skills and training • Professional autonomy • Increased reimbursement opportunities • Better integration into interdisciplinary healthcare teams

"Pharmacists who prescribe would be subject to a whole new legal dynamic, as they would now have to be accountable for both following a clinical process and the outcomes of that process."

The retail drugstore chains, which have also launched in-store clinics staffed by nurse practitioners and have acquired other ancillary services such as home intravenous infusion and durable medical equipment, claim that pharmacists are trusted by patients because the pharmacists have training in human physiology and chemistry that emphasizes drug efficacy and interactions, and that pharmacists have a "complete view" of a patient's health by seeing the patient's prescriptions from multiple providers. They have also expressed the belief that dispensing, which does entail some verification of dosing and interactions, is not an appropriate use of pharmacists' education and skill set. Rather, dispensing can be automated or supervised remotely using digital technology.

But a recent *New York Times* piece profiled how drugstore pharmacists are already overworked, due to increasing mandates of retail chain owners. Specifically, "They struggle to fill prescriptions, give flu shots, tend the drive-through, answer

Walgreens' $140 Million Theranos Gamble: The Technology Was Fraudulent; the Business Strategy Was Not

In October 2018, Walgreens announced it would be opening at least 600 blood-draw locations in conjunction with pathology giant LabCorp. This type of diagnostic testing onsite is a prerequisite to pharmacist prescribing, but not the first time Walgreens has pursued a business strategy of in-store diagnostic testing.

In 2010, Walgreens teamed up with Silicon Valley start-up Theranos to open 40 in-store diagnostic centers while also investing over $140 million in Theranos' small sample point-of-care testing technology, with the idea a patient could receive a diagnosis (and, subsequently, treatment) instantly in the store. Walgreens has an incredible footprint of approximately 10,000 retail locations, making it easily accessible to the vast majority of Americans. Well, in 2015, after a *Wall Street Journal* article cast doubt on the efficacy of Theranos technology, that company shut down for good and in 2017, Walgreens received a $30 million settlement on its initial $140 million investment.

While the Theranos technology was clearly one of the biggest frauds in U.S. history, the business strategy was nothing of the sort. What would the impact be to urgent care if a patient could enter a drugstore, get an instant flu test with immediate results, and then purchase Tamiflu OTC? The barrier to fully realizing the value of in-store testing is no medical provider in the store—and limitations with the retail clinic model—so point-of-care testing is necessarily paired with the pharmacist prescribing treatment based on the lab test.

Source: Sweeney B. Walgreens partners with a new blood-testing firm. *Modern Healthcare*. Available at: https://www.modernhealthcare.com/article/20181011/NEWS/181019973/walgreens-partners-with-a-new-blood-testing-firm. Accessed March 2, 2020.

phones, work the register, counsel patients and call doctors and insurance companies—all the while racing to meet corporate performance metrics that they characterized as unreasonable and unsafe in an industry squeezed to do more with less."[2]

And we're hearing all sorts of double-talk from the Rx lobby, including a third-party complaint in a criminal action involving excessive dispensing of opioids in Florida:[3] "Pharmacists do not write prescriptions and do not decide for doctors which medications are appropriate to treat their patients," the complaint says. "While pharmacists are highly trained and licensed professionals, they did not attend medical school and are not trained as physicians. They do not examine or diagnose patients. They do not write prescriptions."

So long as a pharmacist dispenses the right medication to the right patient, following the provider's instruction, and exercises some diligence to identify any interactions with other drugs the provider may not have known about, professional liability for malpractice generally falls on the medical provider. Pharmacists who prescribe would be subject to a whole new legal dynamic, as they would now have to be accountable for both following a clinical process and the outcomes of that process. Additionally, prescribing privileges for pharmacists would eliminate historic controls separating prescribing from dispensing, while introducing conflicts-of-interest that could trigger Stark Law (antireferral) implications.

"Expansion of the pharmacist's services from dispensing to prescribing could take certain low-acuity visits, such as flu and urinary tract infections, away from urgent care. However, greater concerns center around pharmacists' lack of experience and training in diagnosis, as well as conflict-of-interest issues in removing the separation between prescribing and dispensing."

Conclusion

Retail pharmacies have made significant investments in store design, diagnostic and lab alliances, clinic operations and partnerships, and acquisition of adjacent service lines like IV infusion and home health which all align with an overall plan of changing the pharmacist's role from dispensing to prescribing.

The two largest U.S. pharmacy chains have over 20,000 stores, most of which are at high-visibility, easily accessible intersection locations. An expansion of the pharmacist's services from dispensing to prescribing could take a chunk of low-acuity visits like flu and urinary tract infections away from urgent care. But there are greater concerns regarding pharmacist's lack of experience and training in diagnosis as well as conflict-of-interest issues in removing the current controls between prescribing and dispensing. ■

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Contracting and Credentialing: A Complex Obstacle to Navigate

MONTE SANDLER

The terms *contracting* and *credentialing* are often used interchangeably, but the processes involved in each, while interdependent, are very different and have different outcomes.

Contracting, in brief, is the process of creating a formal legal agreement between the payer (insurance company) and the provider (facility, physician, and/or physician extender). The contract outlines expectations and requirements of all parties. The effective date of the agreement, the reimbursement/fee schedule, place of service, termination clauses, services allowed and disallowed, etc. are all included in a typical contract.

Credentialing with payers is the process of vetting or screening the providers to ensure they meet the criteria to be an approved network provider. It is usually performed by a division of the revenue cycle management/billing team, internally, or through a vendor. The end result is the assignment of an in-network effective date with the payers.

Billing under a provider that did not provide the service can result in serious penalties. The only time this type of billing should occur is when it is explicitly allowed by the payer and supported by state and federal regulations around the scope of practice for the provider type involved. For example, payer ABC may say a physician assistant is allowed to bill under their supervising physician as long as all state and federal oversite regulations are followed. Payer XYZ may say all provider types must be credentialed regardless of more lenient state and federal clinical guidelines.

Credentialing criteria by the payer includes providers who are full time, part time, and sometimes. Payers do not differentiate by the number of hours or shifts a provider covers. Nor do they consider whether the provider is employed or contracted/1099. The only exceptions are payers who clearly state they allow "locum tenens" billing. Those are few and far between. Most commercial payer contracts include some type of government payer product, and therefore they defer to the CMS guidelines. CMS has renamed locums tenens as Fee-for-Time Compensation Arrangements, but the term *locum tenens* is still most commonly used. You can find CMS regulations at CMS.gov.

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Consequences of Violating the False Claims Act

The False Claims Act is a federal law that makes it a crime for any person or organization to knowingly make a false record or file a false claim regarding any federal healthcare program; that includes any plan or program that provides health benefits, whether directly, through insurance or otherwise, and which is funded directly in whole or in part by the United States government or any state healthcare system. Financial penalties to the person or organization include recovery of three times the amount of the false claim(s), plus an additional penalty of $5,500 to $11,000 per claim. Violation of the False Claims Act constitutes a felony punishable by imprisonment, a fine of $50,000 or more, or both, for each violation. This is a lot more than a slap on the hand or a refund.

Prevention Is Better than Cure

The number-one way to avoid credentialing compliance issues is *education*.

- Staying up-to-date on credentialing requirements from each payer is critical.
  - Payers can change the requirements at any time and may not always adequately notify.
  - When contacting payers, be sure to ask for criteria specific to the contract you have with them. The best reference is the EIN/Tax Id associated with the contract.
  - Keep a record of how to contact payers in the event of a contact change within your organization.

– Identify recredentialing and reenrollment requirements by provider.
– Understand payers' policies on reporting any violation in credentialing.

The second most important step is to be *organized*.

- Develop a formal method to track credentialing criteria by payer by provider type.
- Include credentialing criteria in new provider onboarding processes.
- Keep all payers updated on internal or vendor contact information.
- To increase the chances of getting notification, keep payers up to date on how to contact you.
- Utilize software or another system to track credentialing status for each entity, location, and provider by payer.
- Make this available to your registration and billing teams so they are always up to date on the status of each provider.

The third step is to provide *resources* to this process.

- By all accounts, this is a time-consuming responsibility.
- Credentialing is an enormous and time-consuming responsibility; utilize resources that are equipped for this level of task.
- Assign the chore of staying current on payer policies and status of credentialing to someone reliable as one of their primary responsibilities—not as a task they do during "down time."
- If you find you are in violation, follow the steps provided to you by each payer. In most cases, a corrective action plan that will include regular follow-ups is required.

In closing, bear in mind that every organization needs to consider contracting and credentialing a vital part of their business. The days of "my mother's brother's cousin is doing my credentialing" are long past. It takes a professional team to stay current and to reduce your risk of contracting and credentialing compliance issues. ■

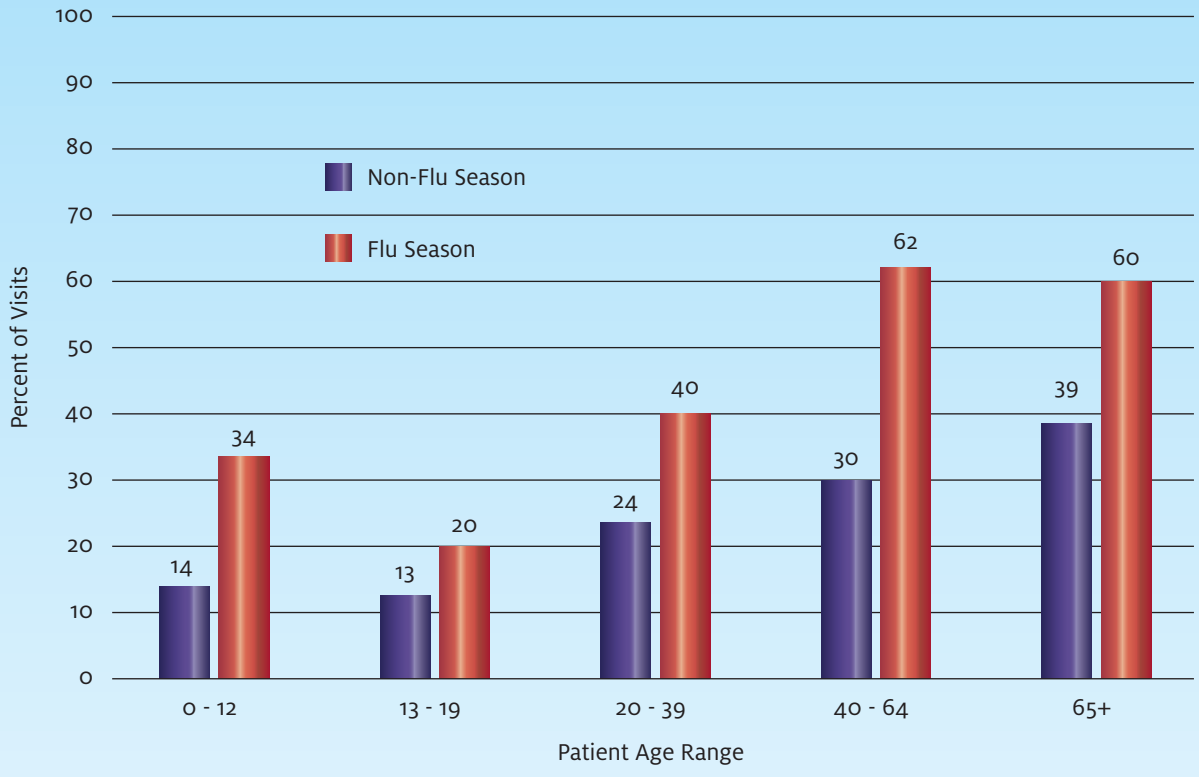
PHYSICIANS WANTED

Image May not Be Everything, but *Imaging* Comes Pretty Close

It used to be that the ability to administer x-rays on site was enough to distinguish one urgent care center's superiority over another. With most urgent care operators understanding that patients have come to expect x-ray services these days, however, it's not such a competitive advantage. Rather, making the process as smooth as possible and ensuring the reads are spot-on should encourage patients to come back in the future. Failing to do so will likely result in them going elsewhere.

Just how much of a threat would that be to your business? Well, according to *Urgent Care Quarterly*, a new industry resource produced by Experity, over 10% of all urgent care visits now feature a radiology exam of one kind or another. Computed tomography, mammography, magnetic resonance imaging, nuclear medicine, and ultrasound are found in some urgent care centers, with ultrasound holding promise down the road due to advances in bed-side technology. For now, though, x-rays continue to be the most common—especially during flu season. See the chart below for a glimpse of how the percentage of urgent care visits that require an x-ray is affected by age and season across the industry. ■

SEASONAL INCREASE IN CHEST X-RAYS BY AGE GROUP



Data source: Trends in urgent care radiology. *Urgent Care Quarterly*. Experity. 2020; Issue 9.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