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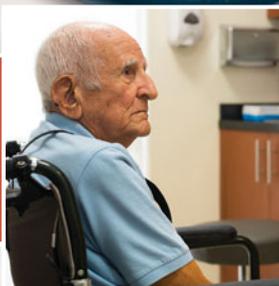


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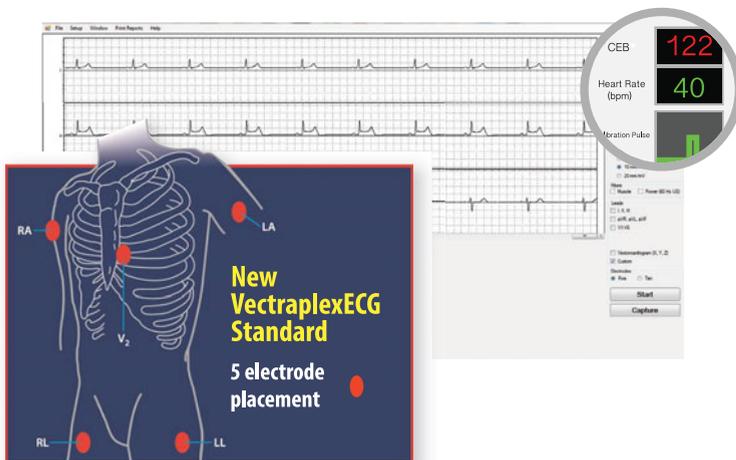
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Faith Healer: Relieving the Burden of Control



Grant me the serenity to accept the things I cannot change; courage to change the things I can; and wisdom to know the difference." I'm not usually one to quote religious text, but this excerpt from the Serenity Prayer resonates. Perhaps the

most pointed and overwhelming challenge facing physicians today is the loss of control over our profession. The last three decades have seen dramatic erosion of the status, ownership, and independence of physicians.

The root cause is multifactorial to be sure, with influence from powerful special interests across multiple industries. Lawyers, insurers, hospitals, pharmaceutical companies, and government agencies have collectively spent billions of dollars influencing patient care. More importantly, they have used their influence to shift finite budgets and funding to interests other than physicians. Without a unified, profit-motivated voice, physicians are confronted with the "money vs medicine" dilemma. Most physicians, self-sacrificing by nature, choose patients over profit. The other special interests know this and take advantage of our lack of organization and altruistic spirit. And physicians are left holding the bag in the end.

Individually, this can leave us feeling deflated, demoralized, and downright angry. While other special interests trample the patient as they lobby through Washington, we watch helplessly even as our own small piece of the pie is eaten. The problem is that we are the closest relationship that most patients have with healthcare. They certainly feel distant from and under-represented by hospitals, insurance companies, pharmaceutical companies, and the government! We own these personal relationships more intimately and directly than any of the special interests do. In fact, we are in service to these relationships by the oath of our profession and the commitment to our discipline. Thus, advocating for our own interests often puts us in direct conflict with our patient relationships.

Together, this combination of guilt and powerlessness contributes to the learned helplessness that many of us feel in our chosen profession.

Back to the Serenity Prayer, then:

- "Grant me the ability to accept the things I cannot change" Regrettably, I am resolved to the fact that we have

"In order to gain control, you have to be willing to give up control."

almost no influence over the funding of healthcare nor the division of that funding amongst the stakeholders. We are at the mercy of a much larger system, and without the ability to truly organize and leverage against the special interests, we stand no chance in the current climate. Acceptance relieves the burden of anger and guilt.

- "Courage to change the things I can" – Despite my rather bleak assessment, we do have opportunity for change. Our power lies firmly in our individual relationships with patients and colleagues, and even our adversaries. Nurturing and developing those relationships builds influence—which we can use to make a difference for our patients and our profession.
- "And wisdom to know the difference" – Perhaps the most difficult to achieve, wisdom requires self-awareness, humility, and accountability, traits many physicians struggle with. Our profession demands "knowledge" and our patients expect the same. When knowledge is the bar, however, we can fall prey to right-vs-wrong assessments, leaving us vulnerable to paralyzing judgments. Wisdom, unlike knowledge, thrives on flexibility and a willingness to take chances. Chances that may lead to failure.

The overarching concept here is rooted in most spiritual and religious teachings: In order to gain control, you have to be willing to give up control. A powerful message for a profession that can shun "faith" as unscientific. But it might just be what the doctor ordered! ■

Lee A. Resnick, MD, FFAFP
Editor-in-Chief, *JUCM, The Journal of Urgent Care Medicine*



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PRACTICE MANAGEMENT

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They like you—they really *like* you! But how do all those Facebook “likes” translate into dollars and cents?

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Septic arthritis can lead to significant morbidity—unless you take the right steps to identify it quickly and correctly, and help the patient start down the road to recovery.

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HEALTH LAW AND COMPLIANCE

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They’re only “freak accidents” when they happen to someone else. What would your liability be if a car came crashing through your front window?

Alan A. Ayers, MBA, MAcc

CASE REPORT

30 An Unexpected Cause of Amenorrhea



The simplest explanation may not be the correct one. Maintaining a wide differential until the picture is clearer will help you reach the right diagnosis as quickly as possible.

Arash Mirzaie, MD

IN THE NEXT ISSUE OF JUCM

Telephone follow-up is an essential part of urgent care’s role in the continuum of care. However, it is sometimes hindered by any number of obstacles—down to something as simple as bad contact information. In the second of our Quality Improvement Reports, Jimmie Toler, MSN, NP-C, Emily E. Johnson, PhD, and Barbara J. Edlund, PhD, ANP, BC detail a quality improvement project to evaluate interventions to improve patient telephone follow-up rates.

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EDITOR-IN-CHIEF

Lee A. Resnick, MD, FFAFP
editor@jucm.com

MANAGING EDITOR

Harris Fleming
hffleming@jucm.com

ASSOCIATE EDITOR, PRACTICE MANAGEMENT

Alan A. Ayers, MBA, Macc

ASSOCIATE EDITOR, CLINICAL

Michael B. Weinstock, MD

CONTRIBUTING EDITORS

Sean M. McNeeley, MD

David E. Stern, MD, CPC

MANAGER, DIGITAL CONTENT

Brandon Napolitano
bnapolitano@jucm.com

ART DIRECTOR

Tom DePrenda
tdeprenda@jucm.com
185 State Route 17, Mahwah, NJ 07430



PUBLISHER

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

CLASSIFIED AND RECRUITMENT ADVERTISING

Justin Daniels
YM Careers
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Mission Statement

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

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What started out as *social* media has become an essential component of the online marketing efforts of every business that wants to reach consumers where they're most likely to get the message. Some very small business—think painters, landscapers, your local sushi takeaway joint—even put up a Facebook page in lieu of a proper website. While we wouldn't advise urgent care centers to do that, it illustrates the perceived reach of one of the lower tech, no-cost promotional platforms.

The question is...does it work? **Alan A. Ayers, MBA, MAcc** analyzes insights uncovered in the *Harvard Business Review* and *MIT Sloan Management Review*, among other resources, in the context of the urgent care industry in this month's cover story, *Calculating the Value of a Like: The Muddled ROI of Facebook Advertising* (page 11). Read it and you will come away not only with a salient answer to the question of whether Facebook works as a marketing platform in the urgent care marketplace, but also a sharper understanding of how you can make the most of your presence, and what it really means to have a patient click that little thumbs-up icon on your page.

Mr. Ayers is vice president of strategic initiatives for Practice Velocity, LLC and practice management editor of *The Journal of Urgent Care Medicine*.



Less esoteric for clinicians is the understanding of what could befall patients whose septic arthritis isn't discovered in time to start effective treatment—namely, significant morbidity and a mortality rate of up to 18%. The *Red-Hot Joint* by **Tracey Q. Davidoff, MD** and **Michael Loeb, MD** (starting on page 15) spells it out in an article that is both case-based and rich in highlights from relevant literature, all in the service of ensuring that readers know what to look for—and, more importantly, what to act on in patients who present with a red, swollen, painful joint in the absence of any trauma. A septic joint is only the most ominous possibility (and thus one that must be excluded as soon as possible); there are others that also require a keen clinical eye in order to get patients on the right path.

Dr. Davidoff is an attending physician at Rochester Regional Health/Immediate Care in Rochester, NY; vice president of the Board of Directors of the College of Urgent Care Medicine; and a member of the Editorial Board of *The Journal of Urgent Care Medicine*. Dr. Loeb is also an attending physician at Rochester Regional Health/Immediate Care in Rochester, NY.

Another diagnosis rife with peril if it's not identified and treated correctly in short order is amenorrhea. In recounting the case of a young woman who presented with delayed menstruation of no apparent cause and few other discernable



symptoms, **Arash Mirzaie, MD** illustrates why it is so important to consider a wide differential and ensure thorough follow-up. His case report, *An Unexpected Cause of Amenorrhea*, can be found on page 30. Dr. Mirzaie is a first-year resident at Multicare Tacoma Family Medicine in Tacoma, WA.

And while we're giving Dr. Mirzaie credit for contributing an excellent article in this month's issue, we'd like to congratulate him on garnering national acclaim for an earlier article that appeared in *JUCM*. A case report he coauthored with **Michael Weinstock, MD** (*Sudden-Onset Headache*, January 2016) won a Silver Award in the American Society of Healthcare Publication Editors 2017 awards competition. This was a tremendous honor, as the competition draws hundreds of entries from dozens of high-quality journals across the country. Our thanks to Drs. Mirzaie and Weinstock for helping *JUCM* maintain our commitment to publishing original content that is both highly relevant and well presented to urgent care providers and operators (something Dr. Weinstock does every month as our associate editor for clinical content).



Now, back to the issue in your hands right now. Liability is a constant concern in any clinical setting, but most often the focus is on minimizing the legal risk of practicing medicine in an increasingly litigious society. More than many other settings, urgent care also operates as a business in the more traditional sense. This begs the question, how far does the urgent care operator's risk go when it comes to everyday occurrences—or occurrences that are from "everyday," like a car that comes crashing through the front door? Alan Ayers again lends his expertise and deep understanding of the urgent care business as the author of *An Urgent Care Operator's Liability for a Car Crash into the Center* (page 22).

Also in this issue:

Sean M. McNeeley, MD and **Glenn Harnett, MD** uncover the urgent care implications of current literature newly published in general medicine and specialty journals as it applies to everyday practice in the urgent care center in *Abstracts in Urgent Care* (page 26). This month, that includes article reviews covering antibiotic prescriptions for nonbacterial acute upper respiratory infections; delayed diagnosis by children with constipation; the relative benefits of triamcinolone vs saline for symptomatic knee osteoarthritis; and more.

Wrapping up this issue, **David E. Stern, MD, CPC** focuses his considerable expertise in urgent care coding and revenue cycle management on why it's so important to understand the nuances of documenting a detailed exam vs an expanded problem-focused exam. Getting it right could make a big difference in your bottom line. ■



CONTINUING MEDICAL EDUCATION

Release Date: July 1, 2017
Expiration Date: June 30, 2018

Target Audience

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

Learning Objectives

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

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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 Case Western Reserve University School of Medicine and the Institute of Urgent Care Medicine. Case Western Reserve University School of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

Case Western Reserve University School of Medicine designates this journal-based CME activity for a maximum of 3 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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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.

The Red-Hot Joint (p. 15)

1. Which items should be included in the differential diagnosis of a patient with acute, nontraumatic inflammatory monoarthritis?

- a. Septic arthritis
- b. Gonococcal arthritis
- c. Gout and pseudogout
- d. Lyme arthritis
- e. All of the above

2. Which of the following is true of patients with septic joint?

- a. The patient will always have a fever
- b. The patient will usually be tachycardic
- c. Although patients may appear toxic, vital signs, including temperature, are usually normal
- d. The patient will often be confused
- e. The affected joint will usually have a break in the skin, revealing the nidus of infection

3. What is the most common bacteria responsible for a septic joint?

- a. *E coli*
- b. *Klebsiella*
- c. Staphylococcal species
- d. *Actinomyces*
- e. *Mycoplasma*

Calculating the Value of a “Like”: The Muddled ROI of Facebook Advertising (p. 11)

1. According to the article, which of the following is true of the return on investment for a Facebook “like”?

- a. Within Fortune 500 companies, the ROI for a Facebook like is over 80%
- b. Social media investments in contests, promotions, and giveaways translate directly to revenue for an urgent care center
- c. Facebook wouldn’t be so successful if it didn’t provide an ROI to marketers
- d. Suppositions about the ROI of earning a Facebook like have never actually been supported by hard, empirical data
- e. None of the above

2. According to the article, researchers at Harvard and MIT have drawn which of the following conclusions from their studies?

- a. The act of liking a brand by itself did not spur purchasing behavior
- b. The knowledge of a Facebook friend liking a brand did not significantly influence behavior
- c. Liking the page of an insurance company did not result in customers engaging in more healthful behaviors than it did with the nonliking customers
- d. All of the above
- e. None of the above

3. According to the article, which of the following did Harvard researchers learn about the proper way to use Facebook likes?

- a. You can push and pull patients all you want, but they are still going to pay with their insurance
- b. Pull marketing occurs when consumers seek out information about a brand, including clicking on and liking a company’s Facebook page
- c. Push marketing occurs when a company targets content specifically to an engaged consumer’s Facebook feed in order to spur some type of behavior
- d. Likes are a signal to a company that a Facebook user is interested in receiving “pushed” content
- e. B, C, and D are all findings described in the article

Case Report: An Unexpected Cause of Amenorrhea (p. 30)

1. Which of the following may raise prolactin levels?

- a. Pregnancy
- b. Physiological or psychological stress
- c. Nipple stimulation from newborn suckling
- d. A prolactinoma
- e. All of the above

2. Which of the following is the best test to assess for a mass lesion in the hypothalamic-pituitary region?

- a. Brain CT scan
- b. Brain MRI scan
- c. Skull x-ray
- d. CBC
- e. TSH level

3. Which drugs are used first line to treat hyperprolactinemia?

- a. Dopamine agonists
- b. Antibiotics
- c. Anti-inflammatories
- d. Drugs which block the secretion of uric acid
- e. Antihypertensives



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UCAOA Takes to Capitol Hill to Meet with Congressional Offices

■ CAMILLE S. BONTA, MHS

Members of the Urgent Care Association of America (UCAOA) advocated on Capitol Hill in May to educate lawmakers about the role urgent care plays in the healthcare continuum. The “day on the Hill” coincided with UCAOA’s Urgent Care Convention & Expo and brought together 15 UCAOA representatives with 90 congressional offices, including staff serving on committees with jurisdiction over Medicaid and veterans’ healthcare.

Beyond providing a basic education on urgent care centers, the group solicited support for legislation that would require the Department of Veterans Affairs to cover urgent care visits for veterans. Sen. Bill Cassidy (R-LA) has since introduced that legislation in the Senate, with bipartisan companion legislation expected in the House. Legislation to improve veterans’ access to urgent care centers is important to UCAOA’s broader efforts to educate payers about urgent care’s value proposition.

Just one day after that May visit, the House of Representatives passed the GOP American Health Care Act. While the extent to which Republicans will ultimately be successful at dismantling Obamacare this year is unclear, there is no doubt that states will seek greater flexibility with their Medicaid programs. The thirty-one states (and the District of Columbia) that have expanded Medicaid are likely nervous because enrollment projections are higher than expected, putting a squeeze on state budgets. Urgent care centers have the capacity to meet the nonemergency medical needs of the Medicaid population at a fraction of the cost to care for these patients in hospital EDs, but they cannot do so at a financial loss, and Medicaid rates for urgent care services are simply insufficient. That leaves states without a healthcare delivery infrastructure that encourages and supports lower cost sites of service.

Improving Medicaid rates so they are on par with Medicare



Camille S. Bonta, MHS is the founder and principal of Summit Health Care Consulting in Breckenridge, CO, focused on the lobbying, regulatory, and advocacy efforts of national healthcare organizations, including UCAOA.

“UCAOA encourages members to use Association resources to communicate and build relationships with state and federal lawmakers.”

would be one step toward a solution. While the failure of the Office of Management and Budget to conduct dynamic scoring that would quantify the savings realized by shifting care out of the ED into urgent care centers (and other budgetary factors) makes achieving Medicaid payment parity difficult, key congressional staff seemed genuinely interested in policy barriers urgent care centers face in caring for these patients.

UCAOA’s “day on the Hill” is just one component of the organization’s overall advocacy efforts, but an important one the association hopes to replicate and grow in the future. A 2015 survey, *Citizen-Centric Advocacy: The Untapped Power of Constituent Engagement*, revealed that 94% of participating congressional staffers believe “in-person visits from constituents” have some or a lot of influence on an undecided lawmaker—a finding that has been consistent for more than a decade, according to the Congressional Management Foundation. The survey also found that in-person meetings that allow legislators and staff to interact and develop relationships with constituents are very important for understanding constituents’ views, and that getting to know legislative assistants and district and state directors is a good way to build those relationships.

UCAOA members truly can use their voices to make a difference on policy issues important to this industry. UCAOA hopes its members will engage in advocacy efforts when called upon and, in the meantime, use UCAOA resources to communicate and build relationships with state and federal lawmakers.

To learn more about UCAOA’s advocacy activities, visit www.ucaoa.org and look for “advocacy” in the menu bar. ■



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Calculating the Value of a Like: The Muddled ROI of Facebook Advertising

Urgent message: Ideally, paid advertising should show a return on investment based on the revenue it generates. However, revenue-based metrics are difficult to prove using social media, in which “likes” are more valuable in identifying fully engaged patients than generating direct sales.

ALAN A. AYERS, MBA, MAcc

When it comes to social media marketing channels, Facebook remains atop the throne. The fact that 80% of Fortune 500 companies have an active Facebook page more than supports that assertion, and stands as testament to the platform’s meteoric rise. Indeed, brands and companies spend billions each year to maintain a social media presence, all in the service of gaining the fans, followers, and “likes” they’re convinced directly translate into increased revenues.

Naturally, urgent care shares in the collective zeal for social media endorsements, given its dependence on top-of-mind awareness and positive testimonials. In fact, you’ll rarely come across an urgent care Facebook page that doesn’t have a contest, promotion, giveaway, or other like-garnering activity going. Yet, these suppositions about the ROI of earning a Facebook like have never actually been supported by hard, empirical data. This begs the question: Are likes, and similar social media endorsements, truly an accurate proxy for projected revenue—in urgent care’s case, positive word-of-mouth and future utilization—or are they just an overhyped vanity metric? Do likes really indicate heightened engagement, and/or portend massive brand exposure? Or are marketers everywhere overestimating their impact, and unwisely pouring big bucks into an activity that, in actuality, promises very little return?

The Value of a Like

This question of the real value of social endorsements such as likes has long intrigued not only marketers, but academics as well. Consequently, a team of Harvard



Business School (HBS) marketing professors, business scholars, and social media experts came together to conduct an in-depth study on whether the mere act of liking a brand influences purchasing behavior. The HBS team conducted 23 carefully crafted experiments over the course of 4 years, involved 18,000 participants, and centered the study around an intriguing counterfactual: How might brand followers otherwise interact with a brand had they *not* followed it on social media?

Given that brands and companies spend billions of

Alan A. Ayers, MBA, MAcc is Vice President of Strategic Initiatives for Practice Velocity, LLC and is Practice Management Editor of *The Journal of Urgent Care Medicine*. The author has no relevant financial relationships with any commercial interests.

dollars, in addition to valuable time and resources, on social media activities, the HBS team felt uncovering the true value of a social media endorsement was a worthy undertaking. Hence, they commenced the study using an A/B testing method, added increasing levels of complexity as they went along, and finally crunched the data. The result? Social media endorsements by themselves don't influence behavior in any meaningful way. Facebook likes, as it turns out, are just one more metric that marketers muddle.

What factors were leading marketers astray? They were confusing cause and consequence, or as business journal *MIT Sloan Management Review* described it in a recent article on the same subject, erroneously attributing causation. Marketers mistakenly assumed that endorsements directly led to purchases, when in fact, the endorsers likely had a favorable opinion of the brand already, which was the true cause of both the likes and the purchases. The HBS team did however, through their fourth and final experiment, uncover an effective way for companies to leverage the likes they garner. And as a recent *Harvard Business Review* article detailing the study reveals, the proper way to use likes involves falling back on classic marketing principles.

Unmuddling Facebook Likes

The first experiment was a simple one: The HBS team tested to see whether the act of liking a product would spur the user to purchase. They set up the experiment by dividing the participants into two groups: The first group was invited to like a brand—in this case, a cosmetics brand—on Facebook (with most accepting), while the uninvited group was to act as the control. The HBS team then sent all the participants a coupon for a free sample, with the coupon acting as a proxy for purchase. As it turns out, both groups—the liking group and the control group—redeemed the coupon at the same rate. This finding held across 16 subsequent studies using different products and brands. The unmistakable conclusion: The act of liking a brand by itself did not spur purchasing behavior.

In the second experiment, the HBS researchers sought

“Social media endorsements may not work the way most marketers think, but likes can play a role in driving sales — if used the right way.”

to determine whether liking a brand wields influence over Facebook friends. They collected the email addresses of three friends from 728 people who recently liked a brand, then invited the emailed friends to redeem a coupon for a product the liking friend endorsed. Additionally, the HBS team varied the type of recommendation the liking friend gave in the following three ways: The emailed friends were told the liking friend endorsed the product offline, via Facebook, or simply that the friend was the sender of the coupon. After

comparing redemption rates across the three categories, the findings were similar to the first experiment: Each endorsement type produced similar redemption rates. All told, the knowledge of a Facebook friend liking a brand did not significantly influence behavior.

The third experiment involved a South African insurance firm, Discovery Vitality, that offers its customers a comprehensive wellness program. The company grants redeemable points for engaging in select healthful behaviors, so the HBS team wanted to see whether liking Discovery Vitality's Facebook page would cause customers to gain more points. The HBS team had Discovery Vitality invite a subset of its customers to like its page, and then monitored their points redemption compared with others who were not invited to like the page. By now, the findings should be no surprise: Liking the page did not result in customers engaging in more healthful behaviors towards redeeming points any more than it did with the nonliking customers.

The Proper Way to Use Facebook Likes

So, through their research and experiments, did the HBS team effectively relegate Facebook likes to the marketer's trash bin? Not exactly. Despite social media endorsements not working the way most marketers think, likes *can* play a role in driving both sales and desired behaviors—if used the right way. The fourth and final experiment, using the same two groups of Discovery Vitality customers, sought to learn if posting targeted content to the liking group would cause them to earn more redeemable points than the nonliking group. This approach was successful, as the liking group earned 8%

more points than the control group when presented with supporting content.

Given how difficult it is to persuade people to engage in healthful behaviors, the finding was of profound significance.

Why did the fourth approach work, though? The final experiment was successful because it effectively combined the concepts of *push* and *pull* marketing. Whereas traditional push marketing works by directly advertising to consumers, pull marketing is designed to encourage consumers to seek out products and brands themselves. In this case, the pull was the customers seeking out and following the brand via social media channels; the push was targeting content specifically to those engaged customers to spur desired behavior. The lesson? With the explosion of social media as a marketing channel, marketers had all but abandoned classic push marketing tactics in their embrace of indirect, less “pushy” pull marketing. But as the *HBR* article clearly demonstrates, combining the two marketing modalities was most effective, with likes illuminating the surest path toward consumers most receptive to targeted content.

What Can Urgent Care Learn?

As the HBS team demonstrated through its research, the true value of a like is not in that it necessarily portends revenue by itself, but in its ability to point marketers towards highly engaged consumers. According to the aforementioned *HBR* article, Facebook pulls in \$22 billion each year in ad revenue. The majority of those dollars are being spent by brands looking to circumvent Facebook’s algorithms—which limits and randomizes which ads show up in users’ newsfeeds, and how often—and get their content in front of large numbers of users. By using likes as a guide to which users it would make the most sense to target with ads and content, marketers can further maximize the impact of their marketing spend.

So how should urgent care interpret these findings, and capitalize on this improved strategy? One way is by strategically paying Facebook to boost specific posts, which will cause them to appear higher up in your target audience’s newsfeed. As the Boost Post tool allows you to customize whom you target, you can experiment with

“The value of a like is not that it portends revenue by itself, but in its ability to point marketers towards highly engaged consumers.”

a few campaigns where you boost relevant posts to users who have liked your page. Content examples might be informational posts about what differentiates your center, common injuries and ailments, flu prevention, sports physicals, and other seasonal content. Additionally, publishing the original article to your center’s homepage, then linking back to it in the Facebook post, helps to drive traffic to your site.

The *HBR* team also noted that its research found savvy firms going beyond garnering mere likes, and seeking out ways to highlight eloquent fan endorsements. Did a patient, for example, post a heartfelt Facebook message describing how your urgent care saved the day during a mishap or crisis? Did a provider receive a glowing endorsement from a customer? Highlight those posts, and find creative ways to integrate them into your marketing messages. Likes are fine, but positive testimonials seen by your entire Facebook audience carry considerably more weight.

Conclusion

The *Harvard Business Review* article laid out a couple of eyebrow-raising statistics that encapsulate the frustration marketers face in mastering social media marketing: 87% of Fortune 500 chief marketing officers admitted that they’re unable to clearly document whether social media efforts result in new customers, while a separate survey of U.S. marketers reveal that 80% are unable to quantify the value of their social media efforts.

Their struggles stem from using social media incorrectly. As the HBS team showed, the value of likes—especially the organic variety—are in that they highlight highly engaged customers. So, rather than cast a wide net and waste marketing dollars, zero in and target your real fans with relevant ads and content. This method not only promises a better ROI from likes, but the increased engagement will transform fans into promoters and evangelists for your brand. Thus, urgent care marketers should use likes as a path to engage fans and followers, and solicit their honest input. Performed diligently, the effort will lead to more people making your urgent care their first choice for utilization, and the one they recommend to friends and family. ■

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The Red-Hot Joint

Urgent message: Septic arthritis can lead to significant morbidity if not treated in a timely manner. Bacteria within the synovial space can lead to rapid joint destruction and irreversible loss of function. When patients present to the urgent care center with a red, hot, swollen, painful joint, every attempt must be made to rule out this disease entity to prevent significant morbidity and mortality.

TRACEY Q. DAVIDOFF, MD and MICHAEL LOEB, MD

Introduction

Patients frequently present to urgent care with a red, swollen, and painful joint in the absence of trauma. Causes of acute monoarticular arthritis can range from gout to septic arthritis. Because septic arthritis can result in significant morbidity and up to an 18% mortality, it is important to exclude this diagnosis as rapidly as possible so that definitive treatment can be instituted as soon as possible.¹ Special consideration should be given to patients with prosthetic joints, as these infections can be especially challenging. Obtaining joint fluid by aspiration and then analysis in the lab is essential to the proper diagnosis and treatment.

Case Presentation

An 84-year-old male presents to the urgent care center with a chief complaint of right wrist pain, redness, and swelling for 1 day. The patient noted tingling in the area before the swelling and redness developed. He denies injury, previous similar symptoms, inflammatory arthritis, or a history of gout. He had no fever, chills, or systemic symptoms. The patient had hydrocodone at home from a previous surgery, but did not think to take it.

Past medical history was significant for an abdominal aortic aneurysm repair 4-5 months ago and peptic ulcer disease in the remote past. He did admit to being diabetic. He could not recall his medications.

He was a daily smoker, denied alcohol, and lived at home with aide service. Review of symptoms was neg-



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ative except as noted above.

On exam, he was healthy appearing, afebrile, and had a normal pulse and blood pressure. His right wrist was red and swollen. A joint effusion was present. It was diffusely tender. Any movement in any plane caused severe pain. There was normal sensation and capillary refill at the fingers. The remainder of the exam was normal. See **Figure 1** for a photo of the wrist.

Tracey Q. Davidoff, MD is an Attending Physician at Rochester Regional Health/Immediate Care in Rochester, NY. She is a previous Senior Clinical Instructor in Emergency Medicine at the University of Rochester School of Medicine. She is the Vice-President of the Board of Directors of the College of Urgent Care Medicine, and on the Editorial Board of *The Journal of Urgent Care Medicine*. **Michael Loeb, MD** is an Attending Physician at Rochester Regional Health/Immediate Care in Rochester, NY. He is a previous Senior Clinical Instructor in Emergency Medicine at the University of Rochester School of Medicine. The authors have no relevant financial relationships with any commercial interests.

- Axiom 1: An acute hot, swollen, and tender joint with restriction of movement is bacterial septic arthritis until proven otherwise.²
- Axiom 2: If a diagnosis of septic arthritis cannot be reliably excluded after clinical evaluation, including arthrocentesis, transfer the patient to the emergency department.²
- Axiom 3: Identifying crystals in joint fluid does not rule out simultaneous septic arthritis.¹

Discussion

As urgent care clinicians, we should first think about the worst-case scenario; only when that has been ruled out can a more benign diagnosis be considered. In the case of the “red-hot joint,” the most serious threat is septic arthritis.

An adequate history and physical should be conducted, with the goal of determining if the pain is arising from the joint itself or from an adjacent structure such as bursa, tendon, ligament, bone, or muscle, or if it is referred from a visceral organ or nerve root. For example, hip pain can arise from lumbar disc disease or lumbar stenosis. Conversely, hip joint pain can refer to the buttocks or groin.³ Bursitis, especially in the elbow and hip, may easily be mistaken for septic arthritis and should be excluded by physical exam.

Other useful information includes onset, duration, temporal pattern, number of joints, symmetry of involvement, and extra-articular manifestations. A history of previous damage to a joint by either arthritis or trauma may predispose to septic arthritis. It should be noted that recent joint surgery or an overlying cellulitis are the only findings on history and physical that can significantly increase the probability of septic arthritis.⁴

Determine the onset of pain, history of trauma, previous joint diseases such as gout or arthritis, medications taken, fever, chills, home treatments, past medical history (especially diabetes), and a past surgical history regarding the joint, or joint replacement. Although elements of the history cannot reliably rule out infectious causes, they may make them less likely. For example, if the patient has a previous history of gout, this diagnosis becomes more likely. Acute symptoms can develop in hours to days. More chronic conditions develop over weeks to months.

On physical exam, inspection should compare one side of the body to the other, specifically looking for symmetry, swelling, and redness. The joint is usually held in the position that allows the maximal intraartic-

Figure 1. Diagnosis: Acute monoarticular arthritis of the right wrist



ular space. Palpate for swelling, warmth, effusion, and tenderness, distinguishing between bony and soft tissue. Assess range of motion, crepitus, and compare with the unaffected side. Assess for instability. If possible or applicable, observe the patient walking.

Signs of inflammatory joint disease include synovial hypertrophy, joint effusions, pain with motion, particularly at extremes, erythema and warmth, limited range of motion, and joint tenderness. Limited range of motion can result from a tense effusion, a markedly thickened synovium, adhesions, capsular fibrosis, or simply pain. Joint tenderness is not specific for any one type of acute arthritis.

Differential Diagnosis

Fortunately, the differential diagnosis of acute nontraumatic inflammatory monoarthritis is relatively short (Table 1). This includes septic arthritis, gonococcal arthritis, gout and pseudogout, and systemic rheumatic disease manifesting in only one joint, such as RA, and Lyme arthritis. The rheumatologic diseases are generally polyarticular, but can present singly. Gonococcal arthritis is also frequently polyarticular. All can include redness, warmth, acute onset, and pain on movement. The pain is present at rest and with motion, but generally worse at the beginning of the motion than at the end. In advanced or severe cases, any motion of the joint is

Table 1. Differential Diagnosis of Acute, Nontraumatic Monoarthritis²

- 85% of non-gonococcal septic arthritis*
- Crystal-induced arthropathy (gout, pseudogout)
- Gonococcal septic arthritis
- Acute osteoarthritis
- Lyme arthritis
- Avascular necrosis Tumor (with or without superinfection)

* 15% of non-gonococcal septic arthritis can involve more than one joint

prohibited by severe pain. An onset within hours should raise the suspicion of joint sepsis.⁵ Although patients may appear toxic, vital signs, including temperature, are usually normal.⁵

Before the advent of antibiotics, two-thirds of patients with septic arthritis died. The incidence of septic arthritis is variable and can range from 4–29 cases/100,000 patient years. The most common bacteria responsible is *Staphylococcal* species, and arises from hematogenous spread during bacteremia of any cause. *Streptococcus* may also be responsible. Spread can also be from direct inoculation during an injection into the joint. Eighty-four percent of adults who develop septic arthritis have an underlying chronic medical condition, and 59% will have a previous joint disorder in the affected joint. Patients on immunosuppressant therapy (but, oddly, not immune modulators) have a fourfold increased risk of septic arthritis.⁶ Risk factors for septic arthritis are listed in **Table 2**.

In native joints, the knee is the most common site of infection, followed by the hip, shoulder, ankle, elbow, and wrist.¹ Other joints, including the axial spine and costochondral joints can also be affected, and are more common in intravenous drug abusers. Septic arthritis can coexist with crystal arthropathy, making diagnosis even more difficult. Identifying crystals in joint fluid does not rule out septic arthritis.¹

The mortality rate from septic arthritis remains about 18% despite adequate treatment. Preexisting conditions such as older age, renal or cardiac disease, synthetic material present in the joint, and immunosuppression contribute to mortality. Most patients will regain 50% to 90% of their preexisting level of joint mobility. This means most patients will experience some level of permanent joint dysfunction.

Infections occur in prosthetic joints in approximately 1% of all knee arthroplasties.¹ This may result in failure

Table 2. Risk Factors for Septic Arthritis¹**Contiguous spread**

- Skin infections, cutaneous wounds, or ulcers

Direct inoculation

- Previous intraarticular injection
- Prosthetic joint, acute and chronic
- Recent joint surgery

Hematogenous spread

- Diabetes mellitus
- HIV
- Immunosuppressant medications
- IV drug abuse
- Osteoarthritis
- Sepsis of any cause
- Prosthetic joint
- Rheumatoid arthritis
- Sexual activity, risk for STD

Other factors

- Age >80

of the prosthesis and is difficult to treat due to bacterial adherence to the prosthetic surface. This causes the formation of a biofilm which leads to the resistance to the host's natural immune response. Many times, the hardware will eventually need to be removed to eradicate the infection. Any suspected septic prosthetic joint should be evaluated by the orthopedic surgeon who placed it as soon as possible, or be sent to emergency if that evaluation is not possible on the same day.

Gout is caused by elevated levels of uric acid and occurs in 1%–2% of the Western civilization. The uric acid develops into urate crystals which then deposits in the joints as crystals or tophi. This then triggers an inflammatory pathway leading to a swollen painful joint in as little as 2–4 hours.⁷ This frequently occurs at night. Although the first metatarsal phalangeal joint is the most commonly affected, gout may also occur in the first metacarpal phalangeal joint, knee, ankle, wrist, or (rarely) other joints. Kidney stones can also occur. Rarely, there is widespread joint inflammation, fevers, and fatigue. Gout is more common in males, and those of African descent. An attack may be triggered by a high intake of meat and seafood, alcohol (beer more common than wine), and fructose-sweetened drinks.⁸ Chronic gout also occurs.



Figure 2. Joint fluid subsequently proven to be gout.

Table 3. Synovial Fluid Analysis ⁹	
Synovial fluid can be classified into five categories:	
1.	Normal: Clear to pale yellow color, transparent clarity, WBC count <200/μL, with <25% polymorphonuclear leukocytes (PMNs) and very high viscosity
2.	Noninflammatory (Group I): Pale yellow color, transparent clarity, WBC count of 200-2000/μL with <25% PMNs; this category is consistent with OA, traumatic arthritis, and early or resolving inflammatory arthritis
3.	Inflammatory (Group II): Yellow to white color, translucent to opaque clarity, WBC count of 2000-50,000/μL with more than 70% PMNs and low viscosity; this category is consistent with rheumatoid arthritis and other chronic inflammatory arthritides
4.	Septic (Group III): White to cream color, opaque clarity, WBC count higher than 50,000/μL with more than 90% PMN and very low viscosity; this category typifies bacterial arthritis, but may also be seen in crystalline arthritis and RA flares
5.	Hemorrhagic (Group IV): Hemorrhagic (red or brown) color, opaque clarity. Fat globules may be seen with fracture

In the urgent care setting, the diagnosis of gout is almost always a clinical diagnosis. A definitive diagnosis of gouty arthritis is made by identification of monosodium urate crystals in synovial fluid obtained from an inflamed joint via arthrocentesis. Monosodium urate crystals are recognizable using polarized light microscopy. They are needle-like and have *negative* birefringence.

Pseudogout, also known as calcium pyrophosphate dehydrate (CPPD) crystal deposition disease, may cause joint inflammation and synovitis that presents in a manner similar to gout. The knee is the most commonly affected, and presents with gradually worsening pain, redness, and swelling over 12-24 hours. Joints with preexisting osteoarthritis are more likely affected. Women are more commonly affected, as are the elderly. The diagnosis of pseudogout is definitively made by testing synovial fluid for calcium pyrophosphate crystals. CPPD crystals are found on polarized light microscopy to be rhomboid shaped and have weakly *positive* birefringence.¹⁰

Gonococcal arthritis is a manifestation of disseminated *Neisseria gonorrhoea* infection. These patients are usually young, healthy, and sexually active. The arthritis is generally in multiple joints, but may start as a single joint. The patient frequently has migratory arthralgia. Tenosynovitis is common. A painless, asymptomatic pustular rash may also be present. The arthritis is nonerosive in most cases. Both blood and joint cultures

are typically negative, but the urethra, rectum, and pharynx may yield positive results and should be cultured.² Patients should also be tested for coexisting sexually transmitted diseases such as chlamydia, hepatitis B and C, HIV, and syphilis.

Fungal arthritis does occur but is very rare in developed countries. Mycobacterium may also cause a subacute monoarthritis. Lyme arthritis can present as one joint, but is usually more. The onset is more indolent and may be intermittent. Borellia cannot be cultured from synovial fluid.

Rheumatoid arthritis usually occurs in multiple joints, but can present acutely with a single inflamed joint. Most commonly affected are the hands and wrists. The incidence is higher in women and increases with age. Onset is much more gradual than infection and gout. The diagnosis can be made clinically, but confirmed with x-rays, and bloodwork.

Other systemic autoimmune processes such as lupus, psoriatic arthritis, and reactive arthritis or Reiter's disease may present with a monoarticular swollen joint, but these are far rarer and cause more systemic symptoms, or have a constellation of associated symptoms (rashes, vision, and urinary symptoms). It is important to always consider autoimmune processes as a cause of a red-hot joint, and obtaining a further history regarding systemic symptoms will help clue in to the possibility of a more systemic cause of the swollen joint.

“A combination of clinical findings, lab studies, and clinical judgment are needed to make the diagnosis more likely.”

Testing

Blood tests are not useful in ruling septic arthritis in or out, and are not usually recommended in urgent care. If ordered, or in the emergency department, a WBC with differential, ESR, and CRP testing may be useful, but not diagnostic. Rheumatoid factor, ANA, and other markers of rheumatologic diseases are not useful acutely and should not be ordered from the urgent care center. Blood tests for uric acid are not a reliable test for gout, as the uric acid is normal 50% of the time during an acute attack. Blood cultures are of no use acutely, but will likely be done when the patient arrives at the hospital. Synovial fluid analysis is the gold standard, but not 100% diagnostic. A combination of clinical findings, lab studies, and clinical judgment are needed to make the diagnosis more likely.

Arthrocentesis can be performed in the urgent care center if the provider feels comfortable doing the procedure and the results can be obtained in a timely fashion. If this is not possible, the patient should be sent to the emergency department. Since all suspected cases should be admitted for orthopedic evaluation, IV antibiotics, and/or OR debridement, it may make more sense to avoid the procedure in the urgent care center and simply send the patient to the hospital. Only in cases when the diagnosis can be reliably ruled out, or another diagnosis (such as gout) is more likely, should the patient be sent home.

Joint fluid should be sent for a manual cell count, gram stain, culture, and evaluation for crystals if gout is suspected. The exam for crystals needs to be specifically requested in most institutions. Gram stain can be done in the clinic if you have the equipment available. Spare tubes for additional testing may be sent to the lab to hold. The fluid should be hand carried to the lab by a

Key Recommendations for Practice¹³

CLINICAL RECOMMENDATION	EVIDENCE RATING
Radiography is not necessary for an accurate diagnosis of monoarthritis in the absence of trauma or focal bone pain	C
Analysis of synovial fluid distinguishes infectious and inflammatory causes of acute monoarthritis from noninflammatory causes	C
Gouty arthritis may be diagnosed without synovial fluid analysis using a diagnostic rule	C
Disseminated gonococcal infections may not result in septicemia or positive synovial fluid cultures; therefore, cultures should be obtained from the potentially infected mucosal site	C
Inflammatory synovial fluid containing monosodium urate crystals is highly suggestive of gout	C
ESR and CRP are more useful for following a disease course than discriminating the presence or absence of the disease in patients with monoarthritis	C
Evidence rating C=consensus or disease oriented evidence, usual practice, expert opinion, or case series.	

trusted person to be sure the sample is not lost, as it is not easily replaced.

Although there is no specific cutoff for synovial WBC count, any count >50,000 is considered a septic joint until the culture proves otherwise. Counts <25,000 are generally not infected, leaving 25,000 to 50,000 a gray area. The bottom line is that the culture is key to proving or disproving joint infection, which may take several days. Glucose, LDH, protein, and lactate have all been measured and are parts of various criteria, but have never been diagnostic on their own for joint sepsis. The old wives' tale of being able to read through a tube of fluid excluding infection has also been debunked in recent years.¹¹

Imaging is not useful acutely in most cases, although preexisting injuries or chronic degenerative disorders that may predispose to septic arthritis may be identified. Acute findings of septic arthritis on x-ray may only be a joint effusion. The risk for marginal bone erosion increases with the amount of time elapsed before treatment is initiated. Gas may be seen in the joint and soft

tissues in infections with *E coli*, *Enterobacter liquefaciens*, and *Clostridium*. Late changes show bone destructions. Findings with crystal-induced arthropathies may include deposition of crystals or joint destruction, but are frequently normal. Bone erosions and tophi associated with gout are rarely seen.

Ultrasound may be useful to identify smaller effusions, distinguish bursitis from arthritis (as in shoulders or elbows), or to assist in arthrocentesis.

Treatment and Disposition

In the urgent care center, any patient suspected of having septic arthritis should be sent to the hospital for definitive care.

These patients need urgent orthopedic evaluation and IV antibiotics.

For gout or pseudogout, nonsteroidal anti-inflammatory drugs (NSAIDs) should be given at their maximum recommended dosage until symptoms improve, then tapered gradually over several days. Indomethacin is a good first choice, but may be limited by adverse effects in some patients. Other NSAIDs with short half-lives can also be used; no specific NSAID is any more effective than the other and it is often a matter of personal choice.¹²

Colchicine may also be effective. At the first sign of attack, 1.2 mg should be given followed by 0.6 mg in 12 hours. Colchicine should be used cautiously in patients with renal insufficiency.

Steroids are a good alternative to NSAIDs and colchicine in patients with advanced age, renal insufficiency, CHF, and inability to take oral medication. Long-acting injectable forms such as triamcinolone acetonide or methylprednisolone acetate may be used, or prednisone 20-30 mg per day tapered over 7-10 days. Intra-articular cortisone injection may also be used.

Without treatment, acute attacks of gouty arthritis typically last a week or less. Unfortunately, the risk of a second attack within a year is greater than 50%. Pseudogout is treated similarly to gout.

Patients with suspected disseminated gonococcal infec-

“Patients suspected of having septic arthritis should be sent to the hospital for definitive care; these patients need urgent orthopedic evaluation and IV antibiotics.”

tion should be admitted to the hospital and evaluated by an infectious disease specialist. Laboratory studies should be obtained before antibiotics are initiated. Intravenous ceftriaxone is the antibiotic of choice plus a single dose of azithromycin 1 g. Patients generally respond dramatically to treatment.

Treatment of Lyme arthritis and the acute rheumatological disorders are beyond the scope of the urgent care provider.

Case Resolution

The patient was transferred to the emergency department, where he underwent joint aspiration, revealing a WBC count of >50,000 WBC that was mostly

poly's. There were no crystals. He was seen by orthopedics, who took the patient to the operating room the same day and washed out the joint. He was placed on IV ceftriaxone and vancomycin. The cultures were eventually negative, but antibiotics were continued for 1 week. He was discharged home shortly thereafter. ■

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An Urgent Care Operator's Liability for a Car Crash into the Center

■ ALAN A. AYERS, MBA, MAcc

Urgent message: The owners and operators of urgent care centers are liable only for “foreseeable” events, which generally excludes a car crashing into an urgent care center and other “freak” accidents.

Perhaps it's the last story on a newscast, or in the strange-but-true section of the newspaper or a website: a vehicle crashes into an urgent care center. As strange as this news may seem, it's not entirely uncommon. In the past decade, there have been at least 13 incidents of motor vehicles crashing into urgent care facilities—some of which have resulted in the deaths of patients and staff.

Of course, each of these accidents—when considered on its own—might be treated as a one-off occurrence or a “freak accident.” But given the nation's footprint of over 11,000 urgent care centers, there are clearly slim but ever-present odds that a car could come crashing through an urgent care center at any time. This article will explore the responsibility of an urgent care center to protect its patients, both against a car ramming into the center, specifically, but also in general.

Premises Liability

Premises liability is a legal term that is used in litigation of personal injury where the plaintiff is injured, and claims this was caused by some type of unsafe or defective condition on the property.¹ In an urgent care setting, it's possible that a patient or another visitor to a facility could be hurt from a vehicle crashing into the building.

Personal injury cases are based on negligence, and in premises liability cases, in order to recover, the injured person must prove that the property owner was negligent in the ownership

“Without proof that a car crashing into the urgent care center is reasonably foreseeable, and evidence of prior similar reckless acts on the premises, a plaintiff will be unable to state a claim of premise liability or negligence.”

and/or maintenance of the property. For example, under Michigan law, a plaintiff must show that there was 1) a duty owed by the defendant to the plaintiff, 2) a breach of that duty, 3) causation, and 4) damages.²

Typically, the standard of care owed to a visitor depends on whether that visitor was a trespasser, a licensee, or an invitee. An invitee is a person who enters the land of another on an invitation that carries with it an implication that the owner has taken reasonable care to prepare the premises and to make them safe.³ Also known as a “business invitee,” he or she is a visitor to the property for a reason that benefits both the visitor and the property owner, such as treatment of patients by the staff of an urgent care facility.



Alan A. Ayers, MBA, MAcc is Vice President of Strategic Initiatives for Practice Velocity, LLC and is Practice Management Editor of *The Journal of Urgent Care Medicine*.

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Car crashes into urgent care are more common than you might think.

A simple Google search reveals at least 15 incidents of a motor vehicle crashing into an urgent care facility over the past 10 years, a few of which resulted in the death of patients and staff. While each of these, individually, could be treated as freak accidents, clearly there are slim but ever-present odds that a car could come crashing through an urgent care center at any time (just as there are odds of any other disaster occurring). The question is, given anything that can happen, what is the responsibility of an urgent care center to protect its patients, both against a car ramming into the center, specifically, but also in general? Following are cases in which such freak accidents did occur in urgent care centers:

- January 16, 2017, Albany Walk-in Care in Guilderland, NY; <http://wnyt.com/news/car-into-workfit-walk-in-care-center-western-avenue-guilderland-albany-county/4372264/>
- January 6, 2017, US Healthworks in Nashville, TN; <http://www.tennessean.com/story/news/crime/2017/01/06/truck-slams-into-building-murfreesboro-pike/96237130/>
- June 12, 2016, Wellmont Urgent Care Center, Norton, TN; <http://www.wcyb.com/news/virginia/car-crashes-into-norton-wellmont-urgent-care-center/42639974>
- March 7, 2016, Eskenazi Urgent Care East, Indianapolis, IN; <http://cbs4indy.com/2016/03/07/car-crashes-into-marion-county-health-department-office-building-driver-detained/>
- November 5, 2015, Urgent Care Extra in Las Vegas, NV; <http://www.reviewjournal.com/news/las-vegas/car-crashes-urgent-care-clinic-no-one-hurt>
- August 15, 2015, Pioneer Urgent Care, Elko, NV; <http://mynews4.com/news/local/elko-district-attorney-dies-after-car-crashes-into-building>
- March 13, 2015, OrthoCarolina Urgent Care, Charlotte, NC; <http://www.14news.com/story/28477538/car-crashes-into-front-door-of-charlotte-medical-building>
- March 3, 2015 Hoag Urgent Care, Huntington Beach, CA; <http://www.ocregister.com/articles/santa-706663-beach-hermosillo.html>
- December 26, 2015, Highlander Point Urgent Care, Floyds Knob, IN; <http://www.wdrb.com/story/27710411/police-say-man-crashed-car-into-floyd-co-urgent-care-center-when-denied-codeine>
- December 13, 2014, Pulse Urgent Care, Redding, CA; <http://www.krcrtv.com/news/driver-arrested-for-dui-after-crashing-into-urgent-care/10863158>
- May 28, 2014, Urgent Care of the Northeast, Plattsburgh, NY; <http://www.mynbc5.com/article/car-crashes-through-urgent-care-building/3316791>
- October 20, 2013, Our Urgent Care, St. Charles, MO; http://www.stltoday.com/news/local/crime-and-courts/minivan-crashes-into-a-st-charles-urgent-care-clinic-killing/article_5e092963-15cc-5cd5-b3b1-3160fe1a2601.html
- March 20, 2012, Clinica Medica Familiar, Tucson, AZ; <http://archive.azcentral.com/news/articles/2012/03/20/20120320-PN10321-MET-tucson-armed-robbery-car-accident-pima-co.html>
- January 1, 2012, MultiCare Urgent Care in Lakewood, WA; https://www.youtube.com/watch?v=96INrelo_yA
- March 17, 2006, Concentra Urgent Care in Santa Fe, NM; http://www.santafenewmexican.com/news/local_news/driver-to-serve-years-in-concentra-crash/article_25970b44-7b91-5cfa-82ea-3375872c11ef.html



Gunderland, NY: A car crashed into Albany Walk-in Care after the driver accidentally hit the gas instead of the brake. Nobody was injured. Photo courtesy of News10 ABC, Albany, NY (<http://news10.com/2017/01/16/car-slams-into-albany-urgent-care-building/>).



Warren, MI: Concentra Urgent Care has erected cement barriers to protect this center from an automobile crashing into it. In 2006, three people died and multiple others were injured when a car came crashing through the Concentra location in Santa Fe, NM. Photo courtesy of Urgent Care Association of America (<http://www.ucaa.org/?UCAccesso8272015>).

Foreseeability

The concept of reasonable foreseeability is the critical component in this analysis, and that’s the situation with the owner of an urgent care center, who is offering medical services to the public. Patients are entitled to the “highest level of protection under premises liability law.”⁴ However, this level of protection does not extend to considering and protecting against a vehicle crashing into the building. Courts have stated that while landowners owe a duty of care to invitees, they are not the in-

surers of their invitees’ safety. The question of duty, one Texas judge explained, “turns on the foreseeability of harmful consequences, which is the underlying basis for negligence.”⁵ Under Washington law, a business owner has a duty to protect invitees from “reasonably foreseeable criminal conduct by third persons.”⁶ But absent proof that a car crashing into the urgent care center is reasonably foreseeable and evidence of prior similar reckless acts on the premises, a plaintiff will be unable to state a claim of premise liability or negligence.⁷

“Courts have held that a business has no obligation to protect those on its premises from runaway vehicles, which are inherently unforeseeable.”

Proximate Cause

In a negligence action generally, in order to establish that an action or omission is the proximate cause of a plaintiff's injury, the plaintiff must establish both 1) foreseeability and 2) cause in fact.⁸

A defendant urgent care center owner doesn't have a duty to protect patients against such an injury. Viewed another way, the standard of conduct required is the general standard of ordinary care that a reasonably prudent person would exercise under all the pertinent circumstances.⁹ Thus, the duty to protect invitees against the reckless or criminal acts of third persons is determined by whether the risk of harm from such conduct is unreasonable under the circumstances. A risk is unreasonable if it is “of such magnitude as to outweigh what the law regards as the utility of the alleged negligent act or omission.”¹⁰ If the probability of the reckless act of third persons is relatively slight, the utility of the occupier's operation is great and the burden of protective action would be substantial, courts have found that a reasonable occupier may ignore the risk and proceed on the assumption that reckless or criminal acts of third persons will not intervene.¹¹ The odds of a car crashing into an urgent care center are slight, the center's utility is great, and the effort to guard against such a risk would be significant. As a consequence, an owner doesn't need to guard against crashing cars. As one Texas court stated, “the risk of cars crashing through the walls with such force as to injure” in this case an apartment dweller, “is extraordinary and unforeseeable.”¹²

Other courts have addressed the foreseeability of harmful consequences from out-of-control cars in parking lots adjacent to buildings occupied by invitees. In Texas, a court held that a restaurant owner owed no duty to erect a parking lot barrier to prevent an intoxicated driver from driving his vehicle into restaurant entrance.¹³ Likewise, in Mississippi, a convenience store owner was held to have owed no duty to erect barriers to keep vehicles from driving through the store's plate glass window.¹⁴ The court in Texas summarized that “no reasonable occupier of land, situated as was the lessor in this case, would go to the expense of erecting barriers around all the buildings

adjacent to the parking lot to prevent such an extraordinary and unforeseen occurrence.”¹⁵ The owner's duty to protect invitees against the reckless or criminal acts of third persons is determined by whether the risk of harm from such conduct is *unreasonable* under the circumstances.¹⁶ Typically, courts will find that the reckless act of the car driver to be a *superseding cause* of a plaintiff's injuries. Courts in a number of states have held that a business has no obligation to protect those on its premises from runaway vehicles, which are “inherently unforeseeable.”¹⁷ In the words of the Minnesota Supreme Court:

“To erect an impregnable barrier around all of the buildings would both obstruct normal pedestrian traffic and impose on the owners a burden completely out of proportion to the anticipated risk. We agree that liability cannot be predicated on the fact that out of the many thousands of vehicles which use parking areas in a normal way, one or two may occasionally jump the curb and expose pedestrians as well as tenants to the remote possibility of injury.”¹⁸

Conclusion

While it is *possible* that a driver of car could crash into an urgent care center, a vast majority of courts have found that this is not *foreseeable* and, therefore, the urgent care operator would not be liable. ■

References

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3. *Hughes vs PMG Bldg., Inc.*, 227 Mich. App. 1, 574 N.W.2d 691, 695 (Mich. App. 1997).
4. *Stitt*, 614 N.W.2d at 92. See *Detrick vs Heidtman Steel Prods.*, 2017 U.S. App. LEXIS 1526, 7-8 (6th Cir. Mich. 2017).
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6. *Nivens vs 7-11 Hoagy's Corner*, 133 Wn.2d 192, 943 P.2d 286, 293 (Wash. 1997).
7. See *McKown vs Simon Prop. Grp., Inc.*, 622 Fed. Appx. 621, 622 (9th Cir. Wash. 2015).
8. *Ambrosio vs Carter's Shooting Ctr., Inc.*, 20 S.W.3d 262, 265 (Tex. App.—Houston [14th Dist.] 2000, pet. denied).
9. *Corbin vs Safeway Stores, Inc.*, 648 S.W.2d 292, 295 (Tex. 1983).
10. RESTATEMENT OF TORTS § 291.
11. See RESTATEMENT OF TORTS, § 302A, comment d; *Hendricks vs Todora*, 722 S.W.2d 458, 461 (Tex. App. Dallas 1986).
12. *Cueva vs APTDF, Ltd.*, 2016 Tex. App. LEXIS 5868 (Tex. App. Houston 14th Dist. June 2, 2016).
13. *Hendricks vs Todora*, at 462. See *Watkins vs Davis*, 308 S.W.2d 906, 909 (Tex. Civ. App.—Dallas 1957, writ ref'd n.r.e.) (“where the injury . . . results from loss of entire control and direction of [a] . . . machine, the occurrence falls within the domain of the unusual and extraordinary, and therefore, in contemplation of law, [of] the unforeseeable”).
14. *Carpenter vs Stop-N-Go Markets of Ga., Inc.*, 512 So.2d 708, 709 (Miss. 1987).
15. *Hendricks vs Todora*, *supra*.
16. See also *Timberwalk Apts. vs Cain*, 972 S.W.2d 749, 756 (Tex. 1998) (“A duty exists only when the risk of criminal conduct is so great that it is both unreasonable and foreseeable”).
17. See, eg, *Albert vs Hsu*, 602 So. 2d 895 (Ala. 1992); *Nicholson vs MGM Corp.*, 555 P.2d 39 (Alaska 1976); *Mack vs McGrath*, 276 Minn. 419, 150 N.W.2d 681 (Minn. 1967); *Carpenter*, *supra*; *Cromer vs Hutto*, 276 S.C. 499, 280 S.E.2d 202, 203 (S.C. 1981); *Kusmirek vs MGM Grand Hotel, Inc.*, 73 F. Supp. 2d 1222 (D. Nev. 1999); *Estate of Myers vs Wal-Mart Stores, Inc.*, 2011 U.S. Dist. LEXIS 39164 (E.D.N.C. Apr. 8, 2011).
18. *Mack vs McGrath*, *supra*, at 686.



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ABSTRACTS IN URGENT CARE

- Who's Getting Antibiotics for Nonbacterial URIs?
- Constipated Children in the ED
- Reconsidering Knee Injections
- Chondroitin vs Celecoxib and Placebo for Knee Pain
- Protecting Traveling Patients from MMR
- Can ECGs Suggest PEs?
- Steroid Use in Treating Sore Throat
- Looking at Appropriate Steroid Use in Children with Asthma
- Chest Pain with No Diagnosis

■ SEAN M. McNEELEY, MD and GLENN HARNETT, MD

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

Tracking Antibiotic Prescriptions for Nonbacterial Acute URI

Key point: Patients were more likely to receive prescriptions from mid- or late-career physicians and from those with higher daily patient volumes.

Citation: Silverman M, et al. Antibiotic prescribing for nonbacterial acute respiratory infections in elderly persons. *Ann Intern Med.* [Epub ahead of print May 9, 2017]

This retrospective analysis of linked administrative health care data was drawn from 8,990 primary care physicians and 185,014 patients who presented with a nonbacterial acute upper respiratory infection (AURI). The study was designed to determine the prevalence of antibiotic prescribing for nonbacterial AURIs and whether prescribing rates varied depending on various physician characteristics. These nonbacterial infections included the common cold (53.4%), acute bronchitis (31.3%), acute sinusitis (13.6%), or acute laryngitis (1.6%). Forty-six percent of patients with a nonbacterial AURI received an antibiotic prescription, with most prescriptions written for broad-spectrum agents (69.9%). The high rate of broad-spectrum antibiotic prescribing in this low-risk cohort is strongly suggestive of inappropriate prescribing. In addition to concerns

about antimicrobial resistance and *Clostridium difficile* infection from antibiotic overprescribing, the toxicity of these drugs needs to be considered, particularly in light of recent warnings issued by the U.S. Food and Drug Administration for macrolides (cardiac arrhythmias and drug interactions) and quinolones (tendinitis, central and peripheral nervous system toxicity). Patients were more likely to receive prescriptions from mid-career (11-24 years since graduation) or late-career physicians (>25 years since graduation) and from physicians with higher patient volumes (>25 patients seen per day). It would be interesting to see further studies in the urgent care setting to explore whether the rate of inappropriate antibiotic prescriptions also rises with higher daily patient volumes. ■

Repeat ED Visits for Children with Constipation

Key point: Reconsider that abdominal radiograph in kids.

Citation: Freedman SB, et al. Delayed diagnoses in children with constipation: Multicenter retrospective cohort study. *J Pediatr.* April 28, 2017. [Epub ahead of print]

This study looked at pediatric patients from 2004 to 2015 who were diagnosed with constipation and had an abdominal film series performed. The endpoint evaluated was a repeat visit to the emergency room for a significant problem. A total of 282,000 visits with a diagnosis of constipation were reviewed. Sixty-five percent had abdominal films performed. Of these, 3.7% had a 3-day revisit, with 0.28% being clinically significant. The most common alternate diagnosis was appendicitis. This was found in about one third of patients. Compared with patients who did not have a radiograph, those who did were



Sean M. McNeeley, MD, is an urgent care practitioner and Network Medical Director at University Hospitals Cleveland Medical Center, home of the first fellowship in urgent care medicine. Dr. McNeeley is a board member of UCAOA and

CUCM. He also sits on the *JUCM* editorial board. **Glenn Harnett, MD**, is principal of the No Resistance Consulting Group in Mountain Brook, AL.

about twice as likely to have a clinically important alternative diagnosis. For the urgent care provider, the decision to perform an abdominal radiograph is tempting; however, the current recommendation is to avoid them, as they are rarely helpful and as seen in this emergency department based study can be falsely reassuring. ■

Triamcinolone vs Saline for Symptomatic Knee Osteoarthritis

Key point: Reconsider the knee injection.

Citation: McAlindon TE, et al. Effect of intraarticular triamcinolone vs saline on knee cartilage volume and pain in patients with knee osteoarthritis: a randomized clinical trial. *JAMA.* 2017;317(19):1967-1975.

This 2-year, randomized, placebo-controlled, double-blind trial compared intraarticular triamcinolone vs saline for symptomatic knee osteoarthritis with ultrasonic features of synovitis in 140 patients to determine its effects on progression of cartilage loss and knee pain. There was no significant difference on knee pain severity between treatment groups, and triamcinolone treatment resulted in greater cartilage volume loss.

“Urgent care physicians should use caution when considering long-term intraarticular steroid injections.”

These results showed greater progression of knee cartilage volume loss and no sustained effect on intraarticular inflammation as indicated by persistence of effusion. As a proof-of-concept study, the results raise questions about the role of inflammation in osteoarthritis progression. The rate of cartilage loss in this study was commensurate with that observed in prior natural history studies, so it is likely that the difference in cartilage loss rates between groups was due to an adverse effect of intraarticular corticosteroids on cartilage rather than a benefit from intraarticular saline. Urgent care physicians should use caution when considering long-term intraarticular steroid injections for chronic knee pain associated with osteoarthritis. ■

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Chondroitin vs Celecoxib vs Placebo in Knee Pain

Key point: Consider pharmaceutical-grade chondroitin.

Citation: Reginster JY, et al. Pharmaceutical-grade chondroitin sulfate is as effective as celecoxib and superior to placebo in symptomatic knee osteoarthritis: the ChONDroitin versus CElecoxib versus Placebo Trial (CONCEPT). *Ann Rheum Dis*. May 22, 2017. [Epub ahead of print]

This study compared 800 mg of pharmaceutical-grade chondroitin, celecoxib 200 mg and placebo in treatment of knee pain. This three-arm study was double blind and placebo controlled, including over 600 patients. Pain was assessed by a visual analogue scale. The chondroitin was significantly superior to placebo, although placebo had a definite effect on pain. Chondroitin was not inferior to celecoxib. For the urgent care provider, this somewhat small study does suggest that using chondroitin as a first-line treatment may be a good choice. The magnitude of the effect of placebo was also an interesting finding. ■

Ensuring Travelers Are Up to Date with MMR Vaccine

Key point: Don't miss the chance to update MMR for travelers.

Citation: Hyle EP, et al. Missed opportunities for measles, mumps, rubella vaccination among departing U.S. adult travelers receiving pretravel health consultations. *Ann Intern Med*. May 16, 2017. [Epub ahead of print]

This article looks at decisions to provide MMR vaccine to travelers out of the country. The authors note many of the MMR outbreaks in the U.S. are resultant from *returning* travelers. The information was obtained through a survey of travelers. Over 40,000 travelers were included in the survey. Sixteen percent of these travelers were eligible for an MMR vaccine. Of those eligible for the MMR vaccine, 53% were not vaccinated. Reasons for no vaccine included refusal by patient (48%), provider decision (28%), and health system barriers (28%). Southern states and nonacademic centers tended to have a lower rate of immunizations. For the urgent care provider, this serves as a reminder to encourage MMR vaccination in travelers, as well as something to keep in mind when evaluating patients with possible measles, mumps, or rubella. A travel history of the patient and possible contacts remains important. ■

'Normal' ECGs Do Not Rule Out Possible Pathologies

Key point: EKG may suggest PE

Citation: Co I, et al. New electrocardiographic changes in patients diagnosed with pulmonary embolism. *J Emerg Med*. 2017;52(3):280-285.

Previous studies have evaluated ECG patterns predictive of pulmonary embolism (PE) at the time of PE diagnosis, though none have examined ECG changes in these patients when compared with their previous ECGs. This study's objective was to identify the most common ECG changes in patients with known PE when their ECGs were compared with their previous baseline ECGs. ECGs have poor sensitivity and specificity for diagnosing PE, and its main value in the urgent care setting is its ability to identify other potentially life-threatening diagnoses, such as myocardial ischemia or infarction and pericarditis. The most common ECG changes when compared with previous ECG in the setting of PE were T-wave inversion and flattening, most commonly in the inferior leads, which occurred in approximately one-third of cases. Approximately one-quarter of patients will have a new sinus tachycardia, and approximately one-quarter will have no change in their ECG. This study is useful for urgent care physicians, as the ECG changes noted in this study are not the traditional changes taught in medical school (eg, right axis deviation, Q waves in Lead I, and inverted T waves in Lead III). The authors also make an important point: much like in the setting of acute coronary syndrome and acute myocardial infarction, a normal ECG does not rule out the potential for severe pathology. ■

Consider Your Options Before Prescribing Steroids for Sore Throat

Key point: Steroids Are of Little Benefit in Sore Throat

Citation: Hayward GN, et al. Effect of oral dexamethasone without immediate antibiotics vs placebo on acute sore throat in adults: a randomized clinical trial. *JAMA*. 2017;317(15):1535-1543.

In this placebo-controlled, randomized, double-blind trial the use of steroids in the form of a single dexamethasone dose was compared with placebo for patients with sore throat who were not in need of antibiotics. A total of 565 patients were eligible for the study. Of these, 288 received dexamethasone 10 mg. Symptoms were similar at 24 hours and slightly better for the patients in the treatment group at 48 hours (35% vs 27%). The authors labeled this is a significant difference. From the perspective of an urgent care provider, and considering the other studies reviewed in this abstract section, an 8% improvement in symptom resolution does not seem to be worth the risk of steroids. At the minimum, a thorough discussion of risks and benefits should be undertaken if the decision is made to prescribe steroids. ■

Prescribe Steroids Judiciously

Key point: Another steroid use question, but an indirect study.

Citation: Farber HJ, et al. Oral corticosteroid prescribing for children with asthma in a Medicaid managed care program. *Pediatrics*. 2017;139(5):e20164146.

“Patients with 'other' diagnoses or no diagnosis 6 months later have an incidence of 3% to 5% of cardiac events within a 5-year period.”

This study attempts to determine appropriateness of oral steroid treatment for patients with asthma. Claims data from Texas Children’s Health Plan was reviewed for steroid use and other signs, such as poorly controlled asthma, inhaler use, emergency room visits, or hospitalizations. Based on their review, significant steroid overuse may be present. They divided use into four groups; despite differences in use, outcomes were likely similar. Unfortunately, the data used in this study were not a direct chart review but rather assumptions based on claims data. From the acute care provider’s perspective, the only definite message is to be aware that there is a concern for overprescription and, understanding all treatment has risk, be sure to prescribe judiciously. ■

The Challenge of Chest Pain with No Diagnosis

Key point: *Those undiagnosed may be latent cardiac disease.*
Citation: Jordan KP, et al. Prognosis of undiagnosed chest pain: linked electronic health record cohort study. *BMJ*. 2017;357:j1194.

Despite significant testing, a small percentage of patients with chest pain do not get a specific diagnosis as much as 6 months later. This study looks at this population of patients over time to seek future diagnoses. This study included 172,180 patients from 233 general practices over a 7-year period. The endpoints included fatal or nonfatal cardiovascular events over 5 years of follow-up. The cardiovascular rate was higher for those with unattributed symptoms than those with a noncardiac cause (4.7% vs 3%). For the urgent care provider, this is a good reminder that both those with other diagnoses and those without a diagnosis related to their pain 6 months later still have an incidence of 3% to 5% of cardiac events within a 5-year period. It does not help answer whether the patient with no definitive diagnosis in the urgent care has a cardiac problem, but it reminds us that even another diagnosis does not definitively rule out cardiac disease. ■

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An Unexpected Cause of Amenorrhea

Urgent message: The simplest explanation for a mundane symptom may not always reflect the correct diagnosis. Urgent care providers should consider all the possibilities in order to reach the correct conclusion as early as possible, or risk missing a more serious underlying diagnosis.

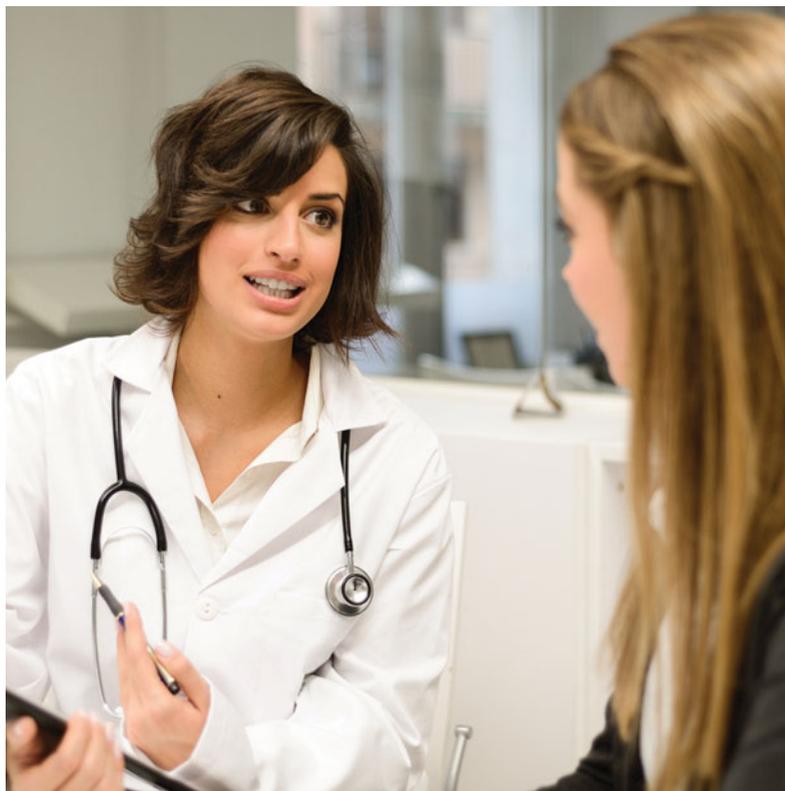
ARASH MIRZAI, MD

Introduction

Sometimes a simple complaint results in a common diagnosis, but other times a rare diagnosis will be discovered. The following case illustrates the importance of considering a wide differential and obtaining appropriate follow-up. Further morbidity was prevented by the vigilance and care of the urgent care provider.

Case Presentation: Two Months Earlier

A 28-year-old female presents with complaints of a missed period with last menstruation 6 weeks ago. Her menstrual cycle is normally regular. She has no other complaints. She is a student and lives by herself. She denies smoking, using illicit drugs, or drinking alcohol. She had a healthy childhood and has never been hospitalized. No past surgical history. Denies being sexually active. Patient denies possibility of being pregnant. She denies family history of hypothyroidism. She has never been on any prescription drugs and is not allergic to anything. Review of systems is positive for nausea and intermittent left breast tenderness; otherwise, negative for fatigue, fever, chills, weight loss, headache, vision changes, upper respiratory symptoms, chest pain, shortness of breath, abdominal pain, bowel movements or urinary changes, vaginal



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bleeding or discharge, stress, anxiety, or depression. Vital signs are as follows: BP: 110/70; HR: 72; Temp: 98.7° F; RR: 12 O₂ 100%; Wt: 145 lb; Ht: 5'7"; BMI: 24.

Physical exam reveals a healthy, well-nourished

Arash Mirzaie, MD is a first-year resident at Multicare Tacoma Family Medicine. The author has no relevant financial relationships with any commercial interests.

female in no acute distress. A complete physical exam from head to toe does not reveal any abnormality. Pelvic exam is normal, but breast exam reveals left breast tenderness and drops of milky discharge from the left nipple upon palpation.

Testing

A pregnancy test was ordered in office; it was negative. At that point, the differential diagnosis included prolactinoma, hypothyroidism, polycystic ovarian disease, and extra-uterine pregnancy. Additional testing was performed to further narrow the differential and included prolactin level, TSH and Free T4, FSH and LH, and B-HCG.

Results

Patient's lab results 2 days later showed an increased prolactin level of 31. She was referred to an endocrinologist, who obtained a brain MRI confirming the diagnosis of prolactinoma. In the subsequent visit with the endocrinologist, patient was started on bromocriptine, which reduced her prolactin to normal levels, resolving all of her symptoms.

PROLACTINOMA

Prolactin is a hormone produced exclusively by lactotroph cells of the anterior pituitary gland. Its hypersecretion is caused by factors directly influencing the lactotroph cells. The upper normal level of serum prolactin is 20 ng/mL. Hyperprolactinemia can be the result of physiologic or pathological causes.¹ Pregnancy can raise the prolactin level to 600 ng/mL at term.¹ Stress, physiological or psychological, can also increase the prolactin levels.¹ Nipple stimulation or sucking by newborns can stimulate the lactotroph cells as well.¹ Pathological causes include prolactinoma, which are benign tumors causing extremely high prolactin levels of even up to 50,000 ng/mL.² Prolactinoma account for approximately 30% to 40% of all clinically recognized pituitary adenomas.³ The diagnosis is made more frequently in women than men, mostly between ages 20 and 40.³

A prolactinoma ≥ 1 cm in size is a macroadenoma; those < 1 cm are considered microadenomas.⁷ The amount of prolactin secretion is proportional to tumor size.⁷

Thyrotropin-releasing hormone (TRH), from the hypothalamus, has positive feedback on lactotroph cells, causing

“Symptoms in premenopausal women may include amenorrhea, infertility, oligomenorrhea, headache, breast tenderness, and galactorrhea.”

an increase in prolactin levels.⁵ Although in most cases of hypothyroidism the basal serum prolactin concentrations are normal, a hypothyroid individual will have increased TRH levels which could increase prolactin levels.⁵ Once hypothyroidism is corrected, the serum prolactin levels return to normal values.⁶

Presentation

Hyperprolactinemia causes hypogonadism in premenopausal women and in men.¹³ In premenopausal individuals, the symptoms may include amenorrhea, infertility, oligomenorrhea, headache, breast tenderness, and galactorrhea.¹³ Hyperprolactinemia accounts for 10% to 20% of cases of amenorrhea, caused by inhibiting gonadotropin-releasing hormone (GnRH).¹⁴ Postmenopausal women by definition are already hypogonadal, so hyperprolactinemia does not change that situation; hyperprolactinemia in postmenopausal women is recognized if the lactotroph adenoma becomes too large, causing headache or vision changes, or may be identified accidentally on an MRI performed for other reasons. In men, hyperprolactinemia causes decreased libido, impotence, infertility, gynecomastia, and (rarely) galactorrhea.¹⁵

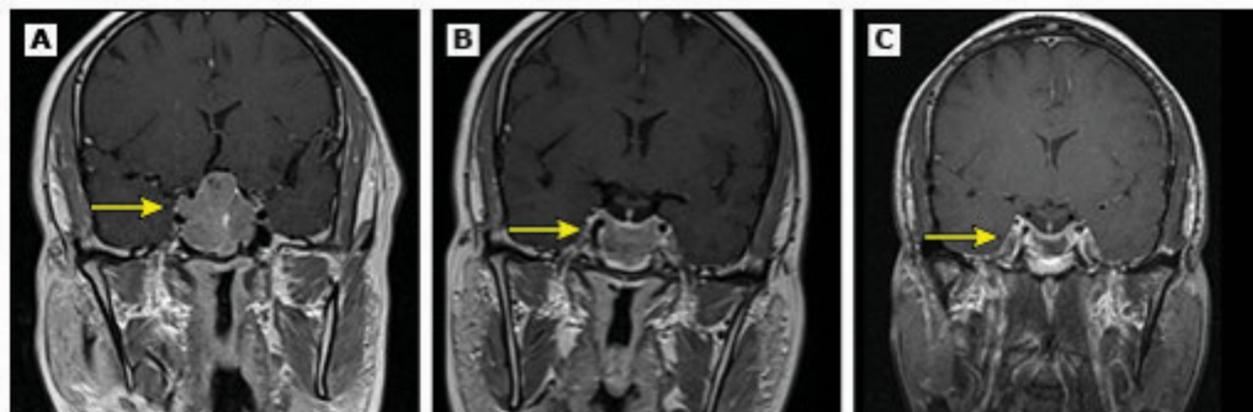
Diagnosis

The diagnosis of hyperprolactinemia is made when the serum prolactin concentration is above the normal value of 20 ng/mL. Caution should be exercised in interpreting serum prolactin concentration between 20 and 200 ng/mL due to wide verity of etiologies.¹⁶ MRI of the brain should be performed with increased prolactin levels to look for a mass lesion in the hypothalamic-pituitary region, unless there is an alternative explanation.⁴ If a brain mass is found on brain MRI, other hormones of the pituitary gland should also be evaluated. If the MRI is normal, and there are no obvious causes of hyperprolactinemia, the diagnosis of idiopathic hyperprolactinemia is made. Idiopathic hyperprolactinemia could be caused by very small adenomas that are not detectable on imaging studies.¹⁶

Treatment

Prolactinomas are more amenable to pharmacological treatment than any other pituitary adenomas. This is because of the availability of dopamine agonist drugs,

Figure 1.



A 37-year-old man with a diagnosis of prolactinoma A) at initial presentation; B) after 2 months of treatment with cabergoline; and C) after 12 months of treatment.⁴

which decrease the production of prolactin and reduce the adenoma's size.

There are two indications why a patient with hyperprolactinemia needs to be treated: the presence of neurological symptoms due to mass effect and the presence of hypogonadism.⁸ The first-line treatment of hyperprolactinemia of any cause, including prolactinoma, is dopamine agonists.⁹ Cabergoline is the first drug of choice and bromocriptine is the second line of treatment.¹⁰ In patients with visual disturbance due to prolactinoma, vision usually begins to improve within days after initiation of therapy.¹¹ (See **Figure 1**, which tracks a 37-year-old man with a diagnosis of prolactinoma through a course of treatment.)¹²

Conclusion

Prolactinomas are an important and relatively common cause of amenorrhea, and should be considered in the differential in the nonpregnant female. Males with sexual dysfunction should also be considered for prolactinoma. Measurement of serum prolactin levels is an easy initial screen. An MRI is the study of choice when hyperprolactinemia is present. Most prolactinomas are amenable to treatment. While patients are usually followed by their primary care physician or gynecologist, amenorrhea is not an uncommon presentation in urgent care. Thus, a

“Diagnosis of hyperprolactinemia is made when serum prolactin concentration is above the normal value of 20 ng/mL.”

basic understanding of the differential and initial testing is useful in our setting. ■

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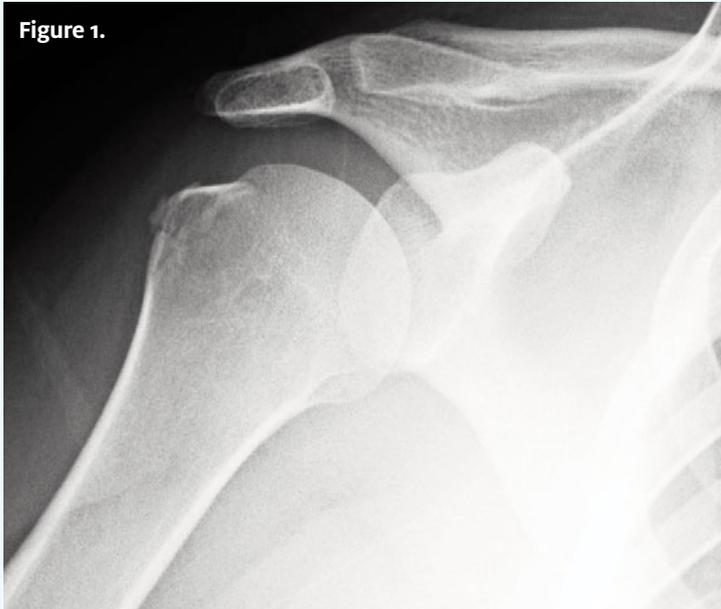


In each issue, *JUCM* will challenge your diagnostic acumen with a glimpse of x-rays, electrocardiograms, and photographs of conditions that real urgent care patients have presented with.

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

A 38-Year-Old Woman with Shoulder Pain

Figure 1.



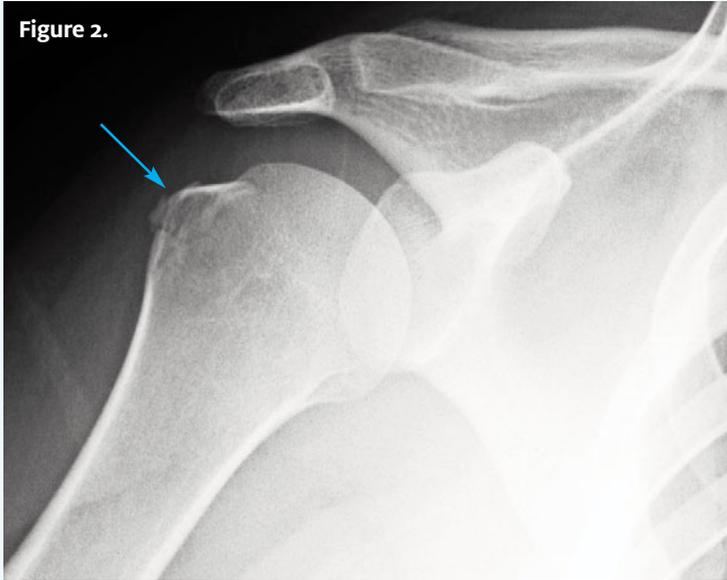
Case

A 38-year-old female patient presents with acute shoulder pain following a fall on an outstretched arm during a spring skiing vacation. There is a normal appearance to the shoulder, but significant pain even with minimal attempts at range of motion. The clavicle and elbow are nontender. Neurovascular status is intact.

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

THE RESOLUTION

Figure 2.

**Differential Diagnosis**

- Shoulder dislocation
- Distal clavicle fracture
- Avulsion of the greater tuberosity
- Osteolytic lesion
- Scapular fracture

Diagnosis

This patient sustained an avulsion of the greater tuberosity. The x-ray shows oblique lucency undermining greater tuberosity of the humerus, with cortical irregularity.

Learnings

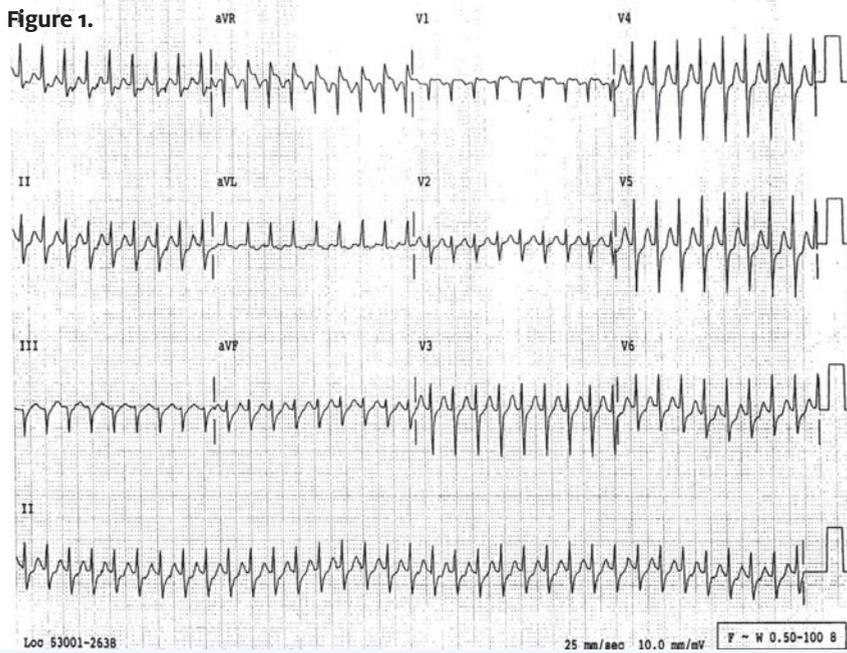
- An avulsion of the greater tuberosity is sometimes called a “hidden fracture” because it usually presents as an undisplaced fracture, which often does not show up on x-rays
- This injury is often associated with tear of the supraspinatus tendon
- When minimally displaced, treatment is often successful without surgery

Pearls for Initial Management and Considerations for Transfer

- Shoulder trauma should be imaged in the urgent care, looking for:
 - Dislocation
 - Fracture of the humerus, clavicle, and scapula
 - Acromioclavicular (AC) separation
 - Abnormalities of associated structures such as rib fractures or pneumothorax
- A dislocation can be reduced in the urgent care, per provider experience.
- Indications for transfer include:
 - Patients with severe pain
 - Diagnostic uncertainty
 - Dislocation unable to be reduced
 - Consideration for septic arthritis or infection
 - Shoulder pain without exam findings of musculoskeletal injury for consideration of acute coronary syndrome (ACS) ■



A 62-Year-Old Woman with Dizziness and Palpitations



61 yrs Female

PR	100	(SVT)	rate = 209	V-rate > (220-age) or 150
QRSD	100	(LAD)	Left axis deviation	QRS axis -31 to -90
QT	244	(SDOLA)	Nonspecific Lateral ST depression	ST -.05 mV I, aVL, V5, V6
QTc	455		ABNORMAL ECG	

Case

The patient is a 62-year-old woman who presents to the urgent care center after 1 hour of intermittent dizziness and feeling of palpitations. She has no chest pain, fever, vomiting, or diarrhea. Further history reveals that she has a history of anxiety, which is manifested by intermittent feeling of heart “palpitations.”

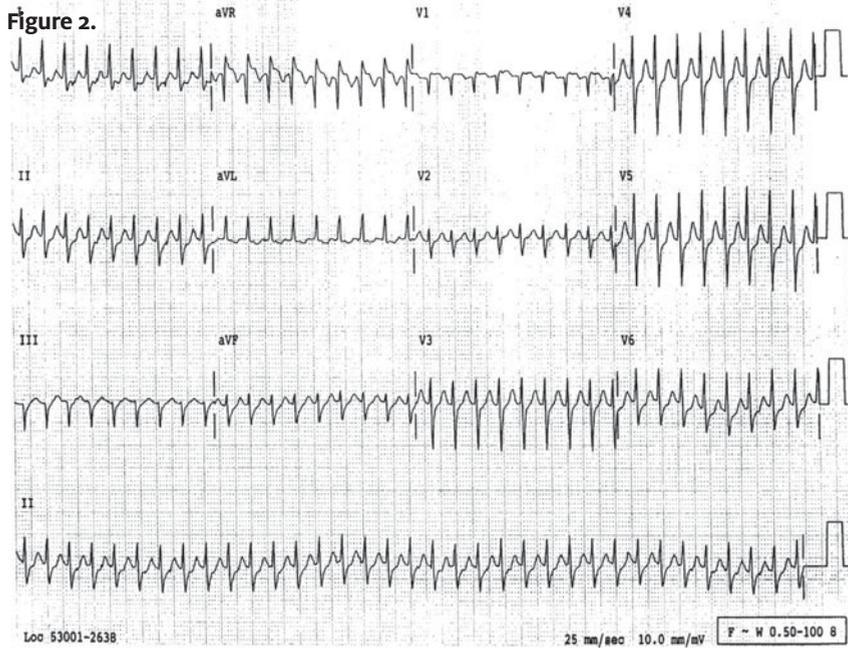
Her primary care doctor is treating her with a selective serotonin reuptake inhibitor (SSRI) for anxiety.

Upon exam, you find:

- **General:** Alert and oriented; mildly tachypneic
- **Lungs:** CTAB
- **Cardiovascular:** Regular and tachycardic without murmur, rub, or gallop
- **Abdomen:** Soft and nontender without rigidity, rebound, or guarding
- **Extremities:** No pain or swelling of the lower extremities; pulses are 2+ and equal in all 4 extremities

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

THE RESOLUTION



61 yrs Female

PR 100 (SVT) . Supraventricular tachycardia, rate = 209 - - - - - V-rate > (220-age) or 150
 QRSD 244 (LAD) . Left axis deviation - - - - - QRS axis -31 to -90
 QT 455 (SDOLA) . Nonspecific Lateral ST depression - - - - - ST -.05 mV I, aVL, V5, V6
 QTc 455 - ABNORMAL ECG -

Differential Diagnosis

- Sinus tachycardia
- Supraventricular tachycardia
- Ventricular tachycardia
- Inferior STEMI
- Atrial fibrillation with rapid ventricular response (RVR)

Diagnosis

The ECG reveals a narrow complex rhythm, so this is not ventricular tachycardia (which would be wide complex). The rhythm is regular, excluding the diagnosis of atrial fibrillation. There are no p waves, so sinus tachycardia is very unlikely. Inferior STEMI is not present, as there are no ST elevations in the inferior leads of II, III, aVF. This ECG shows supraventricular tachycardia.

Learnings

- Supraventricular tachycardia usually occurs from AV node reentry
- The ECG will show a narrow-complex tachycardia
- It is most often seen in women, usually in young adults
- It is unusual to have concomitant cardiovascular disease
- Symptoms may include palpitations, lightheadedness, shortness of breath, or chest discomfort

Pearls for Initial Management and Considerations for Transfer

- Vagal maneuvers may be effective
- A new technique called “postural modification” has recently been described, where the patient lays supine while a vagal maneuver is being performed (such as holding the breath and bearing down) as the extended legs are raised quickly to 45 degrees by the provider
- If available, adenosine 6 mg IV over 1-3 seconds followed by 20 mL NS bolus can be used when vagal maneuvers fail. Monitoring capability, ACLS preparedness and physician supervision is necessary
- Transfer should be initiated with hypotension, confusion, inability to terminate the rhythm, or diagnostic uncertainty



An 18-Year-Old Woman with Sudden Rash, Vomiting, and Cramping

Figure 1.



Case

An 18-year-old woman was swimming in the Atlantic Ocean off the coast of Florida when suddenly she experienced a sharp, stinging pain on her arm. That evolved into a severe ache shortly, accompanied by a painful red lesion. She vomited on her way to your urgent care center, and still feels nauseous. She is also complaining of muscle cramps.

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

THE RESOLUTION

Figure 2.

**Differential Diagnosis**

- Fire coral sting
- Contact dermatitis
- Portuguese man-of-war sting
- Hawaiian box jellyfish sting

Diagnosis

The photo shows, and the accompanying symptoms are indicative of, a Portuguese man-of-war sting. Typically, a red line with scattered papules develops at the sting site. Wheals and blisters may form. Mild shock, nausea, vomiting, abdominal pain, muscle cramps, and headache are common.

Learnings

- The Atlantic Portuguese man-of-war (*Physalia physalis*) is found in the Atlantic Ocean, from Nova Scotia to the Caribbean. Another variety (the Pacific bluebottle, *Physalia utriculus*) can be found in the Pacific Ocean
- *Physalia* venom causes release of inflammatory mediators; it is directly toxic to the myocardium, liver, and kidneys. Systemic reactions are common, but rarely severe
- One toxin, physalitin, depresses the nervous system and can cause respiratory depression
- Rarely, stings may cause death by cardiovascular collapse or respiratory arrest. Hypersensitivity reactions, including anaphylaxis, are rare

Pearls for Initial Management and Considerations for Transfer

- Difficulty breathing or alteration in consciousness warrants transfer to the ED, and possibly injection of epinephrine
- Tentacles remaining embedded in the skin should be removed, either with forceps (preferred) or double-gloved fingers
- Pain can last anywhere from minutes to hours. If present, wheals last a few hours. Redness can last up to 24 hours. These are self-limiting, but supportive care (eg, NSAID pain relievers) may provide comfort
- If the eye is affected, there may be intense burning and tearing pain, blurry vision, and light sensitivity; these will resolve spontaneously in 24–48 hours ■



When Billing by Exam Type, the Revenue Is in the Details

■ DAVID E. STERN, MD, CPC

Q. What is the difference between a detailed exam and an expanded problem-focused exam?

A. Unfortunately, there is no straightforward answer to that question. The Centers for Medicare and Medicaid Services (CMS) provides some guidance in the 1995 and 1997 guidelines (<https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/MLN-Publications-Items/CMS1243514.html>).

The 1995 guidelines state the documentation of the examination as follows:

- **Problem-Focused** – A limited examination of the affected body area or organ system.
- **Expanded Problem-Focused** – A limited examination of the affected body area or organ system and other symptomatic or related organ system(s).
- **Detailed** – An extended examination of the affected body area(s) and other symptomatic or related organ systems.
- **Comprehensive** – A general, multisystem examination or complete examination of a single organ system.

The 1997 guidelines are the same as 1995, except for added wording for related body area(s), as shown here:

- **Expanded Problem-Focused** – A limited examination of the affected body area or organ system and any other symptomatic or *related body area(s)* or organ system(s).
- **Detailed** – An extended examination of the affected body area(s) or organ system(s) and any other symptomatic or *related body area(s)* or organ system(s).

The 1997 guidelines employ a bullet (•) system, with each bullet representing an element for each of the system/body areas. From there, the guidelines go on to define each level of exam as:



David E. Stern, MD, CPC, is a certified professional coder and is board-certified in internal medicine. He was a director on the founding board of UCAOA and has received the organization's Lifetime Membership Award. He is CEO of Practice Velocity, LLC (www.practicevelocity.com), NMN Consultants (www.urgentcareconsultants.com), and PV Billing (www.practicevelocity.com/urgent-care-billing/), providers of software, billing, and urgent care consulting services. Dr. Stern welcomes your questions about urgent care in general and about coding issues in particular.

Table 1.

Current Exam Requirements	Exam Requirements on or After 7/1/2017
Expanded problem-focused exam: 2-7 body areas and/or systems	Expanded problem-focused exam: 2-5 body areas and/or organ systems
Detailed exam: 2-7 body areas and/or systems	Detailed exam: 6-7 body areas and/or organ systems

Adapted from Meridian Medical Management (<http://www.m3meridian.com/resources/insights/national-government-services-ngs-part-b-providers-clarification-evaluation-management-em-exam-documentation/>)

- **Problem-Focused** – One to five elements identified by a bullet.
- **Expanded Problem-Focused** – At least six elements identified by a bullet.
- **Detailed** – At least two elements identified by a bullet from each of six areas/systems *or* at least 12 elements identified by a bullet in two or more areas/systems.
- **Comprehensive** – Perform all elements identified by a bullet in at least nine organ systems or body areas and document at least two elements identified by a bullet from each of nine areas/systems.

In many instances where descriptions are broad, as in this case, CMS allows Medicare administrative contractors (MACs) to create rules based on their interpretation of the issue. There are a few MACs that offer definitive guidance for determining the difference between an expanded problem-focused exam and a detailed exam.

The best example of this may be National Government Services (NGS), who has announced a change, effective July 1, 2017, that will provide a clear distinction between the expanded problem-focused exam and the detailed exam that should leave the provider and auditor with no doubt about which exam was documented. (See **Table 1**.)

Noridian Medicare interprets the 1995 guidelines for a detailed exam as five to seven body areas and/or organ systems

and 12-17 bulleted elements for two (or more systems, using the 1997 guidelines) (<https://med.noridianmedicare.com/web/jeb/education/act/act-qa-101916>).

Palmetto GBA, Novitas Solutions, Cahaba GBA, CGS Administrators, LLC (CGS), Wisconsin Physicians Service (WPS), and First Coast Service Options Inc. (FSCO) all quote CMS 1995 and 1997 guidelines.

So, until the rest of the MACs get on board to better define the difference between an expanded problem-focused exam and a detailed exam, or unless your practice happens to be in one of the states in the NGS or Noridian jurisdictions, the interpretation is left up to the provider. If not, I would suggest you create a policy that defines the difference, and make sure that all the providers in your practice document the exam according to that definition. Query your electronic medical record (EMR) or electronic health record (EHR) vendor on which guidelines are followed and how credit is given so you can educate your staff on what to expect when documenting in the record.

Here is the most recent map indicating the jurisdiction and MAC:



(Editor's note: To receive links to jurisdictions sites for Evaluation and Management guidelines, please email Dr. Stern at: drstern@practicevelocity.com.)

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DEVELOPING DATA

Opioid Visits Keep Skyrocketing

Driven partially by increased use of the powerful synthetic opioid fentanyl, patients continued to flood emergency rooms across the country in increasing numbers over the 10-year period ending in 2014, according to data from the Agency for Healthcare Research and Quality (AHRQ; see graph below). The implications for urgent care are A) that some of those patients surely received their first opioid prescriptions in an urgent care center legitimately for treatment of acute pain, underscoring the need for continued vigilance and commitment to responsible prescribing practices, and B) as always, patients and hospitals need to be aware that urgent care stands ready to treat patients who don't belong in the emergency room, offering a way to reduce bottlenecks and ensure that true emergencies—in this case, patients who may have overdosed on an opioid pain medication—receive potentially lifesaving care as quickly as possible.

OPIOID-RELATED ED VISITS



Data source: Agency for Healthcare Research and Quality

AHRQ also tracks opioid-related ED visits by state, and reports that the problem is most acute in Massachusetts (450.2 visits per 100,000 residents), Maryland (300.7), Rhode Island (298.3), Ohio (287.9); and Connecticut (254.6).



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