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CLINICAL cme

DVT—The Wrong Approach Today Puts Your Patient's Life at Risk Tomorrow

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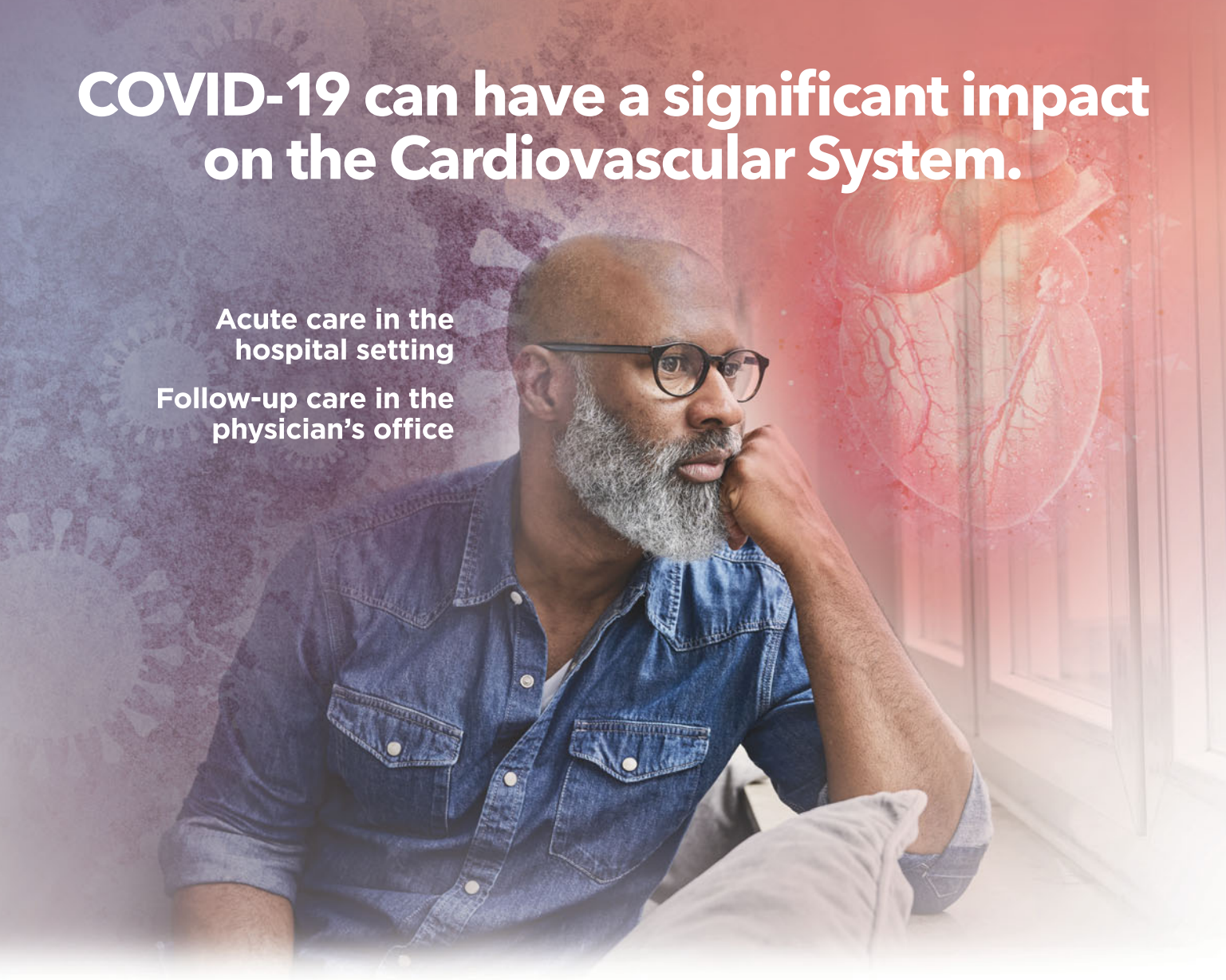

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The Last Hour Problem

It's 8 PM and I'm 9 hours into a 10-hour shift when four new patients walk in. Even though I'm feeling drained, I smile warmly as each passes my workstation. I "eyeball" them each as they walk by; my grin persists because they all seem stable and my "TUR" for this shift in the emergency department is now only 45 minutes away.

TUR (or "time until relief") is a metric I continuously track with ruthless precision when working in the ED. After all, it is the most important figure to know in that position—like a batter knowing the count when he's at the plate.

Shifts in urgent care are different. In the ED, there's always a fresh, well-caffeinated, fully rested colleague arriving as my shift comes to an end. There's tremendous solace in that. For example, I explained to those four patients who came in at the end of my day that it was shift change and we'd check their vitals while they're waiting for the next physician who was about to start work.

This is standard practice in the ED. It's a practice not born out of laziness, but out of a sense of duty to patient safety. Most patients are quite understanding when provided this explanation for a slightly longer wait. Nobody wants to be cared for by an exhausted clinician. Furthermore, patients deserve a comparable assessment whenever they choose to present for care. And there's a stark difference in the mental crispness of the provider wrapping up their shift and the one who's just getting ready to start.

Unlike in the ED, the vast majority of UC's have fixed hours of operation. They open and they close. In the ED, the patients arriving in the last hour of a shift simply wait a bit longer as shift change approaches. During a day in the urgent care, TUR is not on my mind because there's no relief scheduled. Consequently, I don't greet patients arriving at the end of my UC shifts as warmly. I'm sure I'm not alone in this attitude towards last minute walk-ins. Whether we admit it openly or not, we all feel this way to a certain extent—and we needn't feel guilty about it.

This is the essence of the *last hour problem*: the demoralizing threat of having an uncertain amount of work looming when we are in our most exhausted, ego-depleted state.

In ED shiftwork, TUR is a reassuring figure to follow because I know the intensity of work will wind down in parallel with my mental energy.

"Time until close" (TUC), however, is a terror-inspiring countdown because there's no guarantee that closing time will mark the end of the workday. It's like running a marathon knowing that there's a very real possibility that the finish line might be moved a few miles down the road just as it comes into sight. After seeing 50 patients over 12 hours, elation understandably turns to despair when several patients stroll in during the last 10 minutes before close.

Clinicians are not the only ones affected by the last hour problem. Patient experience is often suboptimal when presenting near closing time. In addition to the increased risk of medical errors, these patients commonly face palpably unwelcoming attitudes from UC staff. This is just human nature.

You've probably had this experience if you've ever shown up at a restaurant just as they're getting ready to lock the doors. In this scenario, you probably noted the subtle (or not so subtle) vibes of disgust and frustration from the employees who were tired and eager to go home.

From a brand perspective, however, we want patients to

feel they can be seen and treated with kindness and high-quality care whether they walk in 5 hours or 5 minutes before closing.

"If you're looking for a simple strategy to ensure both your patients and providers feel better cared for, invest in solving this problem in your urgent care center and let everyone know that relief is on the way."

The last hour problem isn't going to go away, either. In fact, the situation seems to be getting worse. While unfortunate, there is an increasing trend among patients to expect the same convenience from UC as would be expected from a grocery store. I've had many patients show up from 7:55 to 7:59 PM with complex complaints who look at me quizzically when I politely suggest that they'd be better served if they come in a bit earlier next time. Patients want convenience and quality in their UC experience, but rarely consider the clinician's perspective when presenting in the literal 11th hour (or more) of their shift.

For the medical directors and administrators reading, it's essential to recognize that pretending the last hour problem doesn't exist is not a viable option. In fact, I am convinced the stress around closing time is driving much of the provider burnout and turnover plaguing UC organizations nationwide. This is because of the moral injury associated with the false summit of closing time and the unpredictability of unscheduled additional work when there are last minute walk-ins.

While I'm sure some urgent care centers have solved for this issue, I have heard from many providers that the prevailing "solution" offered to the last hour problem is to "suck it up" and accept that it's "just part of the job."

If provider retention is among your priorities, I strongly discourage this strategy.

Conversely, I've seen UC organizations "cap" and stop registering patients significantly before posted closing times. While this approach offers tangible recognition for the inevitable fatigue your staff experience with high volumes, it can be profoundly dissatisfying for a would-be long-term patient of your urgent care to be turned away when the clinic is "open."

I'd like to offer a nonexhaustive list of strategies to combat the last hour problem that I've seen implemented with some success in various centers and that would be worth a trial in your organization.

1. Bring in Relief—In baseball, when the starting pitcher is wavering, the manager brings in the reliever so someone with a fresh arm can "save" the game. Similarly, having a second clinician come in for the last 2–3 hours the center is open can unburden a weary provider and allow them to know the *time until relief* with more certainty. And for the clinician-administrators, you'll achieve instant hero status if you're the one who shows up to manage the end-of-day rush.

2. Incentivize Them—As the economist and co-author of *Freakonomics,* Steven Leavitt commonly says, "People respond to incentives. If you can figure out what people's incentives are, you have a good shot at knowing how they'll behave." And there's nothing more universally incentivizing than money. Clearly UC clinicians are not *only* in it for the money, but what they are paid does speak volumes about how much they are valued. Therefore, offering and extra $20-$30 per patient seen in the last hour and beyond, for example, communicates recognition for how much harder it is seeing the last patients of the day.

3. Rotate Clinicians Between Busy and Less-Busy Clinics—Most UC networks have a few slow(er) centers. These can serve as reprieves from the nonstop hustle of busier sites. Try scheduling providers at a less-busy clinic for the shifts following days when they've worked at the most predictably hectic centers.

4. Set Expectations to Stay (and Pay) Beyond Closing Time—Satisfaction = outcome – expectations. So, if you want more satisfied providers, dispel the notion that they will get to go home the moment the center closes. The best way to set this expectation in a nonoffensive way is to pay them for an hour after closing time, regardless of whether they need to stay late or not. With this approach, they'll be overjoyed when the clinic is miraculously empty at closing time and content when they stay the extra hour or so that they'd already mentally budgeted for.

While the last hour problem may seem like a minor one, it is far from that. There is an epidemic of providers feeling underappreciated and burned out. Recruiting and training new providers is extremely costly. So, facing the "last hour problem" head-on is as much a sound business decision as it is a moral one. If you're looking for a simple strategy to ensure both your patients and providers feel better cared for, invest in solving this problem in your UC center and let everyone know that relief is on the way.

Furthermore, if you have a "last hour problem" solution that works, please share your success story with the *JUCM* audience by submitting an article. You can find instructions on doing this at https://www.jucm.com/submit-an-article/. ■

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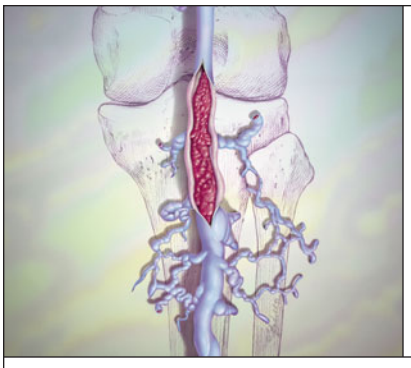

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Suspicion of DVT is common enough in emergency and urgent care medicine. Determining the optimal tools for assessment at the outset is essential—for both the patient's wellbeing and for the sake of getting answers in the urgent care center, without the need to refer.

John DesMarais, MD and Samidha Dutta, DO

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23 Weight Loss, Abdominal Pain, and Distension in a 74-Year-Old Woman

Patients may assume a GI complaint indicates a GI problem. As clinicians, you know that's not necessarily the case and should be eager to get to the source—which can have lifesaving implications.

Fabrizia Faustinella, MD, PhD and L. Alexandre Frigini, MD

PEDIATRIC URGENT CARE

30 Learner Presence Does Not Negatively Impact Patient Experience in Pediatric Urgent Care

Academic medicine equates to having learners on hand for exams and other clinical experiences. On the other hand, urgent care is intent on providing the best patient experience. Are these concepts at odds?

David Skoglund, MD, MS; Brian Lee, PhD, MPH; and Amanda Montalbano, MD, MPH

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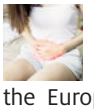

Despite guidelines issued by the American College of Obstetricians and Gynecologists and the European Association of Urology, many urgent care centers fail to have their own definitive policies. The question is, does that matter?

Dianne Treacy Lore DNP, FNP-BC, CPNP-PC and Marlena Seibert Primeau DNP, FNP-BC, NHDP-BC, BSHEC

NEXT MONTH IN *JUCM*

The transgender population has been the subject of much discussion in recent years—most of it controversial and having to do with human rights, protections under the law, and calls for greater awareness across our culture. Too-often overlooked are health issues, especially as they relate to younger patients. In the December issue of *JUCM*, we present an original article that will help the urgent care provider gain a greater understanding of unique healthcare concerns relating to transgender and gender nonconforming adolescents.

DEPARTMENTS

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JUCM®

EDITOR-IN-CHIEF
Joshua W. Russell, MD, MSc, FAAEM, FACEP
editor@jucm.com

EXECUTIVE EDITOR
Harris Fleming
hfleming@jucm.com

SENIOR EDITOR, PRACTICE MANAGEMENT
Alan A. Ayers, MBA, MAcc

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EDITOR, IMAGES
Lindsey Fish, MD

CONTRIBUTING EDITOR
Monte Sandler

SENIOR ART DIRECTOR
Tom DePrenda
tdeprenda@jucm.com

CLINICAL CONTENT MANAGER
Yijung Russell, MD

BRAVEHEART PUBLISHING

185 State Route 17, Mahwah, NJ 07430

PUBLISHER AND ADVERTISING SALES
Stuart Williams
swilliams@jucm.com • (201) 529-4004

CLASSIFIED AND RECRUITMENT ADVERTISING
Ethan Cash
ethan.cash@communitybrands.com • (860) 722-0438

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JUCM CONTRIBUTORS

Deep vein thrombosis is the third most common vascular diagnosis in the United States, after myocardial infarction and stroke. And yet, assessing patients who present with telltale signs like a recent history and pain and swelling in the leg can be a bit of a hit-or-miss proposition.

Our cover article this month uses the case of such a patient to introduce Urgent Care Diagnosis and Management of Deep Vein Thrombosis (page 13). Thanks to the good work of authors **John DesMarais, MD** and **Samidha Dutta, DO**, it should be invaluable in helping you and your team be prepared to use the Wells' criteria and other tools to manage DVT patients on site safely and efficiently.

Dr. DesMarais is program director, Adena Family Medicine Residency. Dr. Dutta is a third-year resident in the Adena Family Medicine Residency.

Similarly, urinary tract infections are a remarkably common occurrence (as in, 150 million around the world every year) that may not be the subject of great scrutiny in any setting. For example, few urgent care or primary care practices have a formal policy regarding the use of urine culture.

What difference does that make? Well, that's actually the question asked—and answered—in an original research paper, Investigation and Assessment of Urine Culture Importance in the Evaluation of Uncomplicated Urinary Tract Infections in an Urgent Care Setting (page 37) by **Dianne Treacy Lore, DNP, FNP-BC, CPNP-PC** and **Marlena Seibert Primeau, DNP, FNP-BC, NHDP-BC, BSHEC**. The authors work together at the University of Alabama in Huntsville College of Nursing.

It would be foolish to presume any complaint can be attributed to the most likely source, of course. Certainly not all gastrointestinal complaints can be chalked up to GI pathology, for example. **Fabrizia Faustinella, MD, PhD** and **L. Alexandre Frigini, MD** explain the implications of this idea in this month's case report, Weight Loss, Abdominal Pain, and Distension in a 74-Year-Old Woman (page 23). Dr. Faustinella and Dr. Frigini are both professors at Baylor College of Medicine.

We're proud to offer you a second piece of original research in this issue—this one with a pediatric bent. Learner Presence Does Not Negatively Impact Patient Experience in Pediatric Urgent Care (page 30) by **David Skoglund, MD, MS**; **Brian Lee, PhD, MPH**; and **Amanda Montalbano, MD, MPH** stems from recognition of the fact that shorter urgent care visits are correlated with higher experience scores, begging the question as to whether having a learner in the room diminishes the patient's satisfaction with their visit.

Dr. Skoglund is an assistant professor at the University of Missouri-Kansas City School of Medicine and assistant professor at the University of Kansas School of Medicine, as well as director of telemedicine and coordinator of medical student and physician assistant education for the Division of Urgent Care at Children's Mercy Kansas City. Dr. Lee is a research assistant professor at the University of Missouri-Kansas City School of Medicine and research faculty for the Division of Health Services and Outcomes Research at Children's Mercy Kansas City. Dr. Montalbano is an associate professor of pediatrics at the University of Missouri-Kansas City School of Medicine, assistant research professor of pediatrics and the University of Kansas-School of Medicine, and director of scholarly activities for the Division of Urgent Care and Medical Director of Patient and Family Engagement for Children's Mercy Kansas City.

Something that could definitely have a negative impact on the health of your business would be to grant the authority to make purchases and financial decisions to everyone on the payroll. At the same time, the person in charge can't make *every* call—can they? **Alan A. Ayers, MBA, MAcc** answers this question from a legal and practice management perspective in Who in a Company Can Bind the Company in a Contract? (page 19). Mr. Ayers is president of Experity Networks and senior editor, practice management for *JUCM*.

On the other side of the world (literally), we would expect norms to be different than what we're accustomed to. Even when something universal like the COVID-19 pandemic comes around, different healthcare systems will be affected in their own unique way. In COVID-19: New Zealand's Urgent Care Story (page 8), **Stephen L. Adams, MBChB, FRNZCUC** shares details of how his nation has been affected—with lessons that could prove invaluable insights here in the U.S. Dr. Adams is the treasurer of the Royal New Zealand College of Urgent Care and currently works in a suburban urgent care clinic.

As always, we're indebted to **Monte Sandler**, vice president of revenue cycle management for Experity, for keeping us all up to date on the nuances of billing and coding issues. This month, he tackles the most vexing aspects of coding for the work done by midlevel clinicians. You can read Billing for Midlevels: Your Questions Answered on page 50.

Finally on page 26 of this issue, **Ivan Koay, MBChB, FRNZCUC, MD** gleans the most urgent care-relevant points from current articles on point-of-care ultrasound in ocular presentations, how to approach patients' biases (inherent and otherwise), the prospect of female patients self-swabbing for sexually transmitted infections, and more. Dr. Koay is an urgent care physician based in Dublin, Ireland, as well as an examiner and trainee supervisor for the Royal New Zealand College of Urgent Care Education Faculty for the Urgent Care Medicine Fellowship, Royal College of Surgeons Ireland. ■

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Push the Button

LOU ELLEN HORWITZ, MA

Over the past several months, various member groups and committees have been working to finalize our advocacy priorities for 2022–2025. This is no easy feat because there's a lot we want to do for you.

What we've had to remember through this process is that the path to progress often involves doing less, not more. By doing less we can focus our attention and resources on those initiatives that are of vital importance to our industry, and that we have a good chance of influencing with enough leverage.

That leverage comes from relationships with:

1. Governmental agencies – We've been working on this for many years through collaborations with several groups within the U.S. Department of Health and Human Services such as the Centers for Disease Control and Prevention, the Office of the Assistant Secretary for Preparedness and Response (ASPR), and the Centers for Medicare & Medicaid Services (CMS).
2. Other associations—We've also been working on this for a while and are collaborating more with organizations like the American Academy of Physician Assistants and the American College of Emergency Physicians. They have already won battles we are now fighting, and by working with these more seasoned groups we are able to advance parts of our goals more quickly than we could on our own. We don't agree on everything, but where we do it can be an accelerator.
3. Members of Congress and other policymakers – We've also stepped up our advocacy work by hosting congressional briefings, meeting with key staff, and collaborating with others on lobbying efforts. We have also partnered with Northeast Regional Urgent Care Association (NERUCA) and California Urgent Care Association (CALUCA) chapters at the state and local levels. In addition, our own political action committee, UCAPAC, has made a number of donations to key members of the Senate and the House of Representatives who serve in leadership positions or those who have oversight of legislation impacting the urgent care industry.

It also comes from the collective voice of everyone in 10,000 urgent care centers—or it should. And here's where we arrive at the title of this column: we need you to make more noise. When we send out an Advocacy Alert (by email) requesting that you take action, we need you to "push the button." Tens of thousands of voices can make a lot of noise, but not if they remain silent. The last time we sent an alert less than 10% of you took action.

Theodor Seuss Geisel's *Horton Hears a Who!* was published in 1954. In addition to being a wonderful story about the compassion of an elephant, the book teaches that sometimes *every single person* has to make some noise to save a world. Our industry is a bit bigger than Whoville (the size of a speck of dust), but the lesson remains—no one believed that Whoville existed until every single Who "no matter how small" shouted out—and only then were they finally heard and believed.

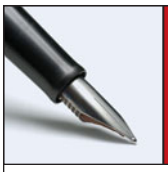
We know that members of Congress track constituent responses and that's all about numbers! When you see these Advocacy Alert emails, don't assume "one more won't matter." In advocacy work you never know what small thing is going to get something over the finish line. Advocacy is often a long, long, long road...and every step gets us closer. What you do matters.

In the next few weeks UCA will be announcing our new advocacy priorities and strategic initiatives. Our main objectives include educating members of Congress and regulatory agencies on the urgent care industry and engaging these policymakers to make tangible policy changes in support of the urgent care industry and the patients we serve. Stay tuned for these announcements by the end of the year.

If you are interested in learning more about our recent and upcoming advocacy efforts and priorities—and I hope you are—check them out on ucaoa.org. We've added an Advocacy heading in our topline navigation so it's easy for you to find. You can learn about the positions we've taken in the past year, and what we'll be focusing on for the next several years.

We've also invested in technology to make it easy for you to participate in Advocacy Alerts. So next time you get an email from us with a picture of the U.S. Capitol on it, go ahead and push that button. Every voice matters. ■

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



COVID-19: New Zealand's Urgent Care Story

STEPHEN L. ADAMS, MBCHB, FRNZCUC

Like the rest of the world, New Zealand (and more particularly its healthcare system) has been changed, perhaps irrevocably, by COVID-19. Despite a relatively small direct effect on the population (0.06% infected, half of which were identified and isolated at border) with 0.0004% deaths[1] (including one physician), the effects on primary care have been substantial.

The Beginning

New Zealand clinicians were first notified of the Wuhan cluster in January 2020. By the beginning of February 2020, the threat was clear. Public health authorities immediately declared the disease reportable, although testing at that time could only be done with central approval.

In early February of that year, tourists who had been repatriated from the Diamond Princess cruise liner in Tokyo were quarantined on a NZ defense base. A UC physician from the nearest clinic volunteered to provide medical care to the passengers, who were eventually discharged without any cases found.

As local COVID-19 cases gradually emerged in February and March, screening was established around the country, with increasing use of separate rooms and personal protective equipment for suspicious cases. A 7-week nationwide lockdown was instituted in late March in response to exponentially increasing cases. Only essential services continued, with tight travel and distancing restrictions put in place.

This triggered a major shift in patient care as the College of General Practitioners called for a move to telehealth for their physician members.[2] The effect of this was that a large number of patients who needed a face-to-face consult were channeled to urgent care, as were the large numbers of international visitors trapped in country. Many of the international patients needed repeat prescriptions, often for medications not available in New Zealand.

Volumes in emergency departments dropped in response to a message to keep clear for COVID-19. Overnight the nation's UC centers became the most visited locus for physical evaluations. Compulsory mask wearing and separation of patients was implemented immediately, and testing centers sprung up overnight in car parks.

Assessment and treatment of symptomatic patients was more of a problem. UC centers had not been constructed with a need for isolation in mind. While EDs had been built with isolation/negative pressure facilities in response to the 2003 SARS outbreak, UCs lacked these capabilities.

Several approaches were used to address this shortcoming, with patients initially being assessed in their cars (a strategy taken from the response to New Zealand's 2019 measles outbreak). Some clinics had a room available adjacent to a separate entrance while others used temporary buildings for suspect cases. Telephone triaging was used with mixed success to separate streams of respiratory/febrile cases from others.

PPE (such as gloves, masks, and gowns) was initially in short supply. While government stocks were released relatively quickly, N95 masks were not distributed to community facilities because of doubts surrounding proper fit testing. Thankfully, no serious shortages of PPE occurred otherwise.

Vaccination

Immunization has proceeded at a slower pace compared with Northern Hemisphere countries, with a program using the Pfizer vaccine commencing in February 2021. Clinical staff were mostly able to complete courses of immunization by June 2021, although an open letter in May 2021 from 32 doctors to the government questioned the legality of registering the vaccine under national pharmaceutical regulations.

Although other vaccines are now available (AstraZeneca) or approved (Janssen, Novavax) only the Pfizer vaccine has

Stephen L. Adams, MBChB, FRNZCUC is the Treasurer of the Royal New Zealand College of Urgent Care and currently works in a suburban urgent care clinic.

been widely deployed, as New Zealand's AstraZeneca supplies have been rerouted to other Pacific Island nations.

The wider epidemiological effects of interest include a fall in all-cause mortality[3] and winter respiratory illnesses during 2020, followed by a supernormal RSV surge in 2021, which was attributed to two cohorts of infants who had not previously been exposed to this virus.[4]

COVID-19 and the Future of UC in New Zealand

Higher awareness about infectious disease preparedness due to the pandemic and the 2019 measles outbreak has proven that urgent care centers need to be designed with facilities to isolate potentially infectious patients from others. Accreditation of urgent care facilities in New Zealand has been largely under the purview of the Accident Compensation Commission. This organization pays for treatment, rehabilitation, and financial support of accident victims and has been instrumental in setting standards for UC facilities.[5] However, these have largely focused on injured patients rather than those with infectious illness.

In the future, a separate entrance and treatment area for infectious patients would be prudent in the design of all UC centers.

Could this also mean a long-term move of acute and particularly infectious patients to UC centers? COVID-19 has also changed the landscape for the other part of primary care—general practice, which was already struggling with an aging workforce, increasing compliance issues, and physician shortages.[6] In many parts of the country, waits for primary care appointments had been long. The addition of COVID-19 has exacerbated the situation as many general practitioners have been persuaded to retire earlier than originally planned. Along with the move of much of general practice to telemedicine, this has shifted a greater load of acute presentations to urgent care and emergency departments. The inability to obtain primary care appointments has also led to the increasing use of urgent care for routine consultations such as repeat medications.

Postscript

As of August 2021, New Zealand had entered its second lockdown due to the arrival of the Delta variant. Unfortunately, immunization has only been achieved in approximately 20% of the eligible population.[7] The most recent wave of infections has exposed the slow progress of immunization and limited capacity (particularly in intensive care units) to safely care for victims too unwell for community care. As we enter this phase, the topic of strategy is being debated, as "elimination" seems less practical in favor of the more pragmatic "containment" or "mitigation" approaches.

Whatever the future holds, it looks as if urgent care will play an increasingly integral role in New Zealand's healthcare landscape. Whether this is understood by policy makers to whom the specialty has been largely overlooked[8] remains to be seen. ■

References

1. New Zealand Ministry of Health. COVID-19: case demographics. Available at: https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-data-and-statistics/covid-19-case-demographics. Accessed October 8, 2021.
2. Jones N. Coronavirus: GPs asked to do 70 per cent of consults online to protect against Covid-19. *NZ Herald*. March 22, 2020. Available at: https://www.nzherald.co.nz/nz/coronavirus-gps-asked-to-do-70-per-cent-of-consults-online-to-protect-against-covid-19/LQG3FD67QNM6N6I7DTVLPZBGS4/. Accessed October 8, 2021.
3. Kung S, Doppen M, Black M, et al. Reduced mortality in New Zealand during the COVID-19 pandemic. *Lancet*. 2021;397(10268):25.
4. Grant CC, Huang QS, Trenholme A, et al. What can we learn from our 2021 respiratory syncytial virus experience? *NZ Med J*. 2021;134(1540):7-12.
5. Royal New Zealand College of Urgent Care. Urgent Care Standard 2015. Available at: https://onedrive.live.com/?authkey=%21APnFyuH%5FI1BCwDI&cid=CF7D0491EAA47C88&id=CF7D0491EAA47C88%2147511&parId=CF7D0491EAA47C88%2147509&o=OneUp. Accessed October 8, 2021.
6. New Zealand Doctor. College of GPs releases latest Workforce Survey data. Media release. March 31, 2021. Available at: https://www.nzdoctor.co.nz/article/undoctored/college-gps-releases-latest-workforce-survey-data. Accessed October 8, 2021.
7. New Zealand Ministry of Health. COVID-19: vaccine data. Available at: https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-data-and-statistics/covid-19-vaccine-data#total-vaccinations.
8. Johnston M. Fix: primary care groups feature prominently on Transition Unit's dance card. *New Zealand Doctor*. July 22, 2021. Available at: https://www.nzdoctor.co.nz/article/news/fix-primary-care-groups-feature-prominently-transition-units-dance-cardNZ. Accessed October 8, 2021.

Do You Have an Urgent Perspective to Share?

One of the aims of *JUCM* is to bring you content that reflects the everyday concerns—clinical or otherwise—of the urgent care community. We created the Urgent Perspectives column as a space where our readers can contribute to that mission, a forum where they can speak their minds and share thought-provoking, illuminating ideas of interest to their colleagues.

Consider this your invitation to do just that. Have you had an experience that you think others would benefit from hearing about? Is there an idea that you think would inspire the urgent care community to take action, whether to advocate for itself or patients?

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Release Date: November 1, 2021
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Learning Objectives
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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
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Urgent Care Diagnosis and Management of Deep Vein Thrombosis (page 13)

1. **Risk for deep vein thrombosis increases by 60% in:**
   a. Smokers
   b. Individuals over 70 years of age
   c. Obese individuals
   d. Individuals with diabetes

2. **A Wells' DVT risk score of 3 or greater is associated with:**
   a. A 5% risk for DVT
   b. A 14% risk for DVT
   c. A risk of 17% to 53% for DVT
   d. A 60% risk for DVT

3. **There are multiple options for anticoagulation treatment in patients with DVT. The optimal choice depends on:**
   a. The patient's comorbidities
   b. Renal function
   c. Financial and practical considerations
   d. All of the above

Who in a Company Can Bind the Company in a Contract? (page 19)

1. **The two types of authority under which an individual is legally authorized to commit company resources are called:**
   a. Actual authority and apparent authority
   b. Signing authority and presumed authority
   c. Proxy authority and specific authority
   d. Statutory authority and designated authority

2. **The outcome of a dispute regarding signing authority can be dependent on:**
   a. An agent's past conduct
   b. An agent's job duties and title
   c. Whether the agreement is a consumer or a business-to-business contract
   d. All of the above
   e. None of the above

3. **The principal may be liable for the acts of their agent if:**
   a. The principal is out of state
   b. The agent presumed that they had "statutory authority to commit company resources in the physical absence of the principal"
   c. The agent "acts with actual authority or the principal ratifies the agent's conduct"
   d. The agent is the most senior employee on site at the time

Weight Loss, Abdominal Pain, and Distension in a 74-Year-Old Woman (page 23)

1. **Which disease processes can manifest with GI symptoms?**
   a. Ovarian masses
   b. Abdominal aortic aneurysm
   c. Diabetic ketoacidosis
   d. All of the above

2. **Epithelial neoplasms of the ovary account for:**
   a. 60% of all ovarian tumors and 40% of benign tumors
   b. 40% of all ovarian tumors and 60% of benign tumors
   c. 50% of malignant and benign tumors
   d. 64% of all tumors in the ovaries

3. **The two most frequent types of cystadenomas are:**
   a. Endometrioid and clear-cell cystadenomas
   b. Serous and mucinous cystadenomas
   c. Endometrioid and mucinous cystadenomas
   d. Clear-cell and serous cystadenomas

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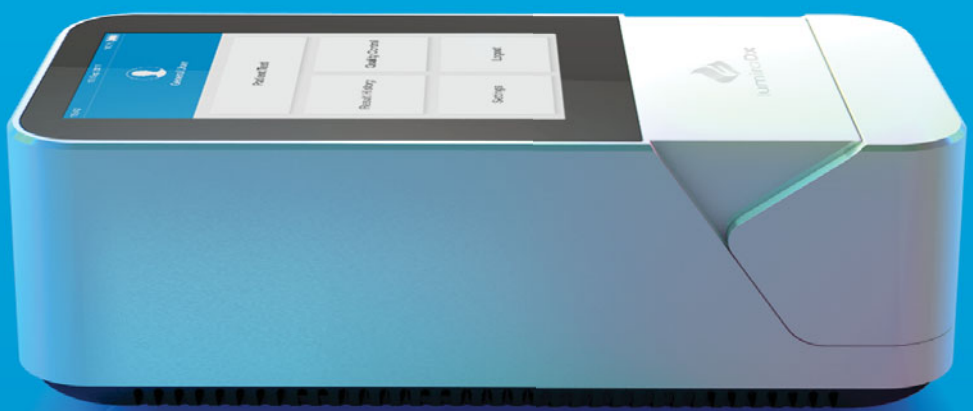

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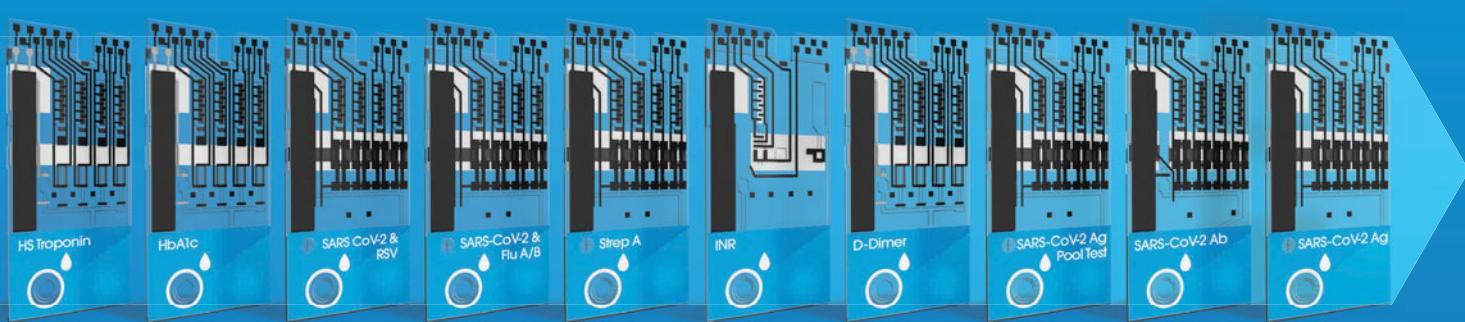

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See **CME Quiz Questions** on page 11.

Urgent Care Diagnosis and Management of DVT

Urgent message: Screening patients with suspected deep vein thrombosis using the Wells' criteria is an efficient tool that would be even more impactful with access to point-of-care, high-sensitivity D-dimer testing in the urgent care setting.

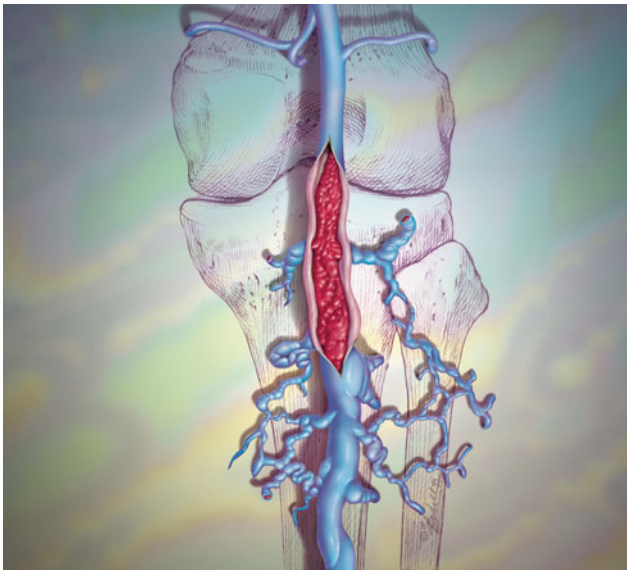
JOHN DESMARAIS, MD and SAMIDHA DUTTA, DO

Citation: DesMarais J, Dutta S. Urgent care diagnosis and management of deep vein thrombosis. *J Urgent Care Med*. 2021;15(2):13-17.

Case Presentation

A 37-year-old woman presents with 3-day history of right leg swelling and pain. Symptoms began with no history of trauma. She denies prior episodes. Her symptoms have persisted despite using ibuprofen, warm compresses, and massage to the area. She has pain with ambulation. Her past medical history includes hypertension for which she takes only lisinopril. She denies tobacco or illicit drug use, and drinks alcohol only on holidays. She lives an active lifestyle.

Her right calf is warm and erythematous. Palpation of the posterior calf elicits pain. There is nonpitting edema. The right calf is 1 cm greater in diameter than the left. The remainder of her exam is unremarkable. Vitals are normal. She seems uncomfortable when trying to ambulate on the leg but is in no acute distress.



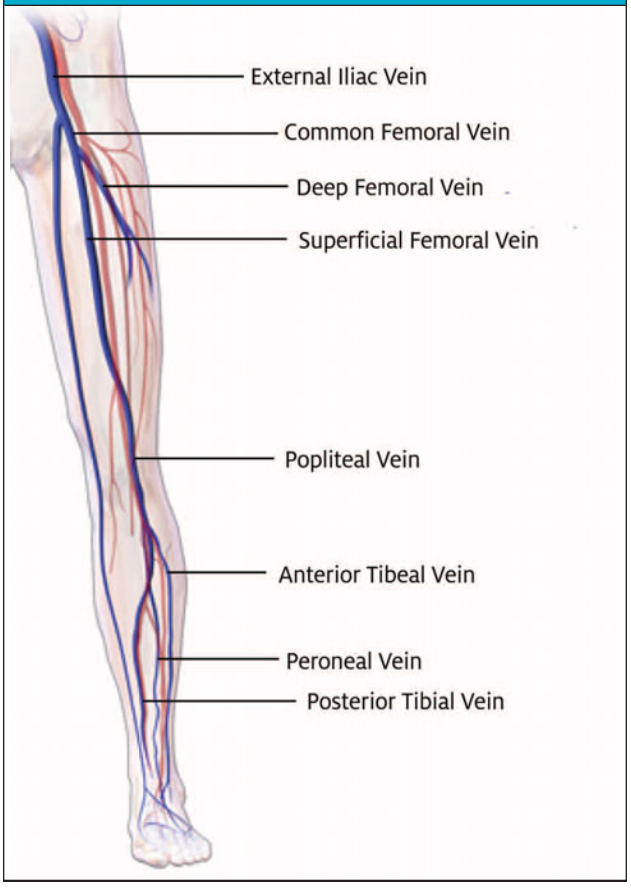
Introduction

A deep vein thrombosis (DVT) can occur in any of the deep veins (**Figure 1**). According to the American Heart Association, it is the third most common vascular diagnosis following myocardial infarction and stroke and affects roughly 300,000 to 600,000 Americans annually.[1] DVTs most commonly involve clot formation in the large veins of the lower extremity and can be either proximal or distal to the knee. A pulmonary embolism (PE) occurs when the thrombus dislodges and travels proximally through the venous system into the pulmonary vasculature. The risk of DVT increases by 60% in individuals over 70 years of age. Approximately half the individuals with untreated proximal DVT develop symptomatic PE within a period of 3 months and 25% of these symptomatic cases result in sudden death.[2]

Though often not readily available in urgent care or primary care, venous ultrasound is the test of choice for DVT. Thus, history, physical exam, and risk stratification are essential in determining when and how rapidly testing should occur. An important risk stratifying tool is the Wells' score for DVT (**Table 1**). Distinguishing between "provoked" and "unprovoked" and "first-time" vs "recurrent" DVT has important implications for formulating management.

Author affiliations: John DesMarais, MD is program director, Adena Family Medicine Residency. **Samidha Dutta, DO, PGY-3** is a third-year resident in the Adena Family Medicine Residency. The authors have no relevant financial relationships with any commercial interests.

Figure 1: Deep veins of the lower extremity



Risk Factors

The highest risk in females occurs before 50 years of age. In males, DVT occurs more commonly over 65 years of age.[3] Other nonmodifiable risk factors include the presence of inherited thrombophilias such as Factor V Leiden mutation, prothrombin gene polymorphism, protein C and S deficiency, non-O blood groups, and methylenetetrahydrofolate reductase (MTHFR) gene polymorphism, with the risk greatest in those who are homozygous for these conditions.[2,3] The most potent of these genetic risk factors are protein C and S deficiencies, which are present in approximately 15% of patients under the age of 45 who present with a DVT. Deficiency in either of these proteins can increase risk of DVT by 10-fold or more.[2]

Factor V Leiden mutation, the most prevalent of these genetic conditions, is associated with a lifetime incidence of DVT of about 6.3%.[3]

Thrombophilias should be suspected in patients with history of recurrent DVT or recurrent miscarriages. Family history of thrombophilias in first-degree relatives is also an important component of history-taking in patients with signs and symptoms of DVT.

Table 1. Wells' Criteria for DVT

Risk factors	Points
Active cancer	1
Bedridden recently >3 days or major surgery within 12 weeks	1
Calf swelling >3 cm compared to the other leg	1
Collateral (non-varicose) superficial veins present	1
Entire leg swollen	1
Localized tenderness along the deep venous system	1
Pitting edema, confined to symptomatic leg	1
Paralysis, paresis, or recent plaster immobilization of the lower extremity	1
Previously documented DVT	1
Alternative diagnosis to DVT as likely or more likely	- 2

Acquired and Persistent Factors

The risk of DVT events is several times higher in patients with congestive heart failure (CHF) under the age of 40 compared with those over age 80. Patients with CHF have increased venous stasis resulting from decreased cardiac output and patient immobility. Increasing severity of heart failure is directly correlated with an increased incidence of DVT.[2]

The overall risk of DVT in patients with advanced cancer increases by seven-fold when compared with the general population.[2] Certain cancers such as non-Hodgkin lymphoma, lung, ovarian, brain, pancreatic, and gastrointestinal have higher rates of associated DVT.[2] Chemotherapeutic agents such as 5-fluorouracil, tamoxifen, and cisplatin are all medications that influence factors such as hypercoagulability, endothelial injury, and/or blood flow which in turn also contributes to the increase risk of DVT in patients with cancer.[2]

Several other acquired risk factors include acute infection, chronic inflammatory diseases (eg, systemic lupus erythematosus, rheumatoid arthritis), chronic obstructive lung disease, chronic kidney disease, recent history of stroke (with an increased incidence of DVT by 15% in patients within the first 3 months post-stroke), recent major surgery (especially orthopedic surgeries), and trauma (eg, spinal cord injuries).[2,3]

DVT risk increases in a dose-dependent manner in response to estrogen levels, especially in patients on

Table 2. Anticoagulant Options

Direct factor Xa inhibitors			
Apixaban (Eliquis)	10 mg twice a day for 7 days then 5 mg twice a day	27% renal clearance Adjust dose if CrCL <15 mL/min	$300 to $500 per month Free 30-day coupon Bristol-Myer Squibb
Edoxaban (Savaysa)	>60 kg = 60 mg daily <60 kg = 30 mg daily after 5 to 10 days of parenteral bridging	50% renal clearance Avoid use if CrCl <15 or >95 mL/min	$350 per month No coupon or patient assistance program
Rivaroxaban (Xarelto)	15 mg twice a day for 21 days then 20 mg daily	66% renal clearance Avoid used if CrCl <30 mL/min	$350 to $600 per month No coupon Johnson and Johnson
Direct thrombin inhibitors			
Dabigatran (Pradaxa)	150 mg twice a day after 5 to 10 days of parenteral bridging	80% renal clearance	$300 to $500 per month Free 30-day coupon Boehringer-Ingelheim
Indirect factor Xa inhibitor			
Fondaparinux (Arixtra)	• <50 kg = 5 mg subcutaneous, daily • 50 to 100 kg = 7.5 mg subcutaneous daily • >100 kg = 10 mg subcutaneous daily • Concomitant treatment with warfarin should be initiated as soon as possible	100% renal clearance Avoid used if CrCl <30 mL/min	
Low molecular weight heparin			
Dalteparin (Fragmin)	• 100 units/kg subcutaneous q12hr • 200 units/kg subcutaneous daily	Primarily renally cleared	
Enoxaparin (Lovenox)	• 1 mg/kg subcutaneous q12hr • 1.5 mg/kg subcutaneous daily	Primarily renally cleared	

hormone-replacement therapy or taking combination oral contraceptives. Similarly, later stages of pregnancy and the puerperium period also increase the risk of DVT by a rate 1.4%.[3] This relation is also the understood mechanism for why premenopausal women, ie, those under the age of 50, have a higher incidence of DVTs.

Modifiable risk factors

Modifiable risk factors include obesity, increased waist circumference, and cigarette smoking. Obese individuals are twice as likely to develop DVT.[2] Patients with childhood obesity maintain an increased risk of DVT into adulthood even if BMI normalizes.[4] Metabolic disorders such as diabetes are also included in these lifestyle-related risk factors; other modifiable risk factors include immobilization, dehydration, and long-term steroid.[2,3]

Diagnosis

DVT can present with unilateral leg pain, swelling, and occasionally redness of the affected extremity. Often, the nonspecific nature of the complaint necessitates use of objective tests to confirm diagnosis.

D-dimer is among the most common screening tests for DVT and PE. D-dimer is a fibrin clot degradation product which is increased in patients with both acute and chronic thrombosis. Unfortunately, although very sensitive, its use is limited as a stand-alone test because its low specificity can result in frequent false positives. Many conditions, such as recent surgery, trauma, pregnancy, older age, and cancer can lead to D-dimer elevation.[4] Be-

Table 3. Anticoagulation Preferences in Different Clinical Scenarios[3]	
CKD Stage I-III (GFR >30)	Prefer DOACs
CKD Stage IV (GFR 15-29)	Prefer warfarin or half dose LMWH. Avoid DOACs
ESRD on dialysis	Prefer warfarin. Avoid DOACs and LMWH
Pregnancy	Prefer LMWH. Avoid DOACs and warfarin
Breastfeeding women	Prefer warfarin or LMWH. DOACs contraindicated
Non-GI tract cancer	Prefer LMWH or DOACs
GI tract cancer	Prefer LMWH or apixaban. Avoid rivaroxaban or edoxaban
Receiving chemotherapy	Prefer LMWH or DOACs (must assess chemotherapy-DOAC interaction)

cause of the low specificity, assessing pretest probability is often combined with D-dimer assay testing.

Interpretation of the Wells' Score

The Wells' DVT risk score is a validated tool widely used to help determine the pretest probability of DVT.[3] A score of 0 represents a 5% risk of DVT. A score of 1–2 represents a 17% risk and 3 or greater is associated with a 17% to 53% prevalence risk. Patients with the lowest Wells' score (-2) have up to a 5% risk of thrombus, underscoring that DVT cannot be 100% excluded using this alone.[3] Current recommendations favor a combined approach toward diagnosis: Patients with a score of ≤1 on the Wells' criteria have a low risk of DVT, so this should prompt a D-dimer test which, if negative, can reliably exclude the diagnosis. If the D-dimer is positive, a confirmatory diagnostic imaging test should follow. Patients with a high-risk Wells' score of ≥2 do not need a D-dimer but may proceed immediately to a diagnostic imaging test to confirm the diagnosis.[7]

D-dimer levels increase with age, leading to even lower specificity for DVT in older patients. An age-adjusted D-dimer threshold, defined as the patient's age multiplied by 10 ng/mL, has been suggested for patients older than 50 years.[4] This age-adjusted strategy improved specificity by about 9.5% from 45.2% to 54.7% and reduced false positives to a more acceptable level.[3,5]

In outpatient settings, the preferential diagnostic imaging choice should be venous compression ultrasound. Alternative imaging modalities like venography, CT, and MR venography can be utilized; however, this is a less desirable approach due to high cost, exposure to ionizing radiation, reaction to contrast media, or their invasive nature.

Differential Diagnosis

- Distal DVT – The ultrasound may demonstrate a distal DVT in one of the calf veins. Anticoagulation is controversial in these settings unless the patient has risk factors for extension (eg, an unprovoked DVT or previous venous thromboembolism) or develops extension on serial ultrasound exam, which should be done 2 to 3 weeks after the initial diagnostic investigation to exclude propagation of the clot.
- Severe calf muscle pull/trauma – History usually involves an injury and signs of bleeding on the ultrasound or hematoma formation or bruising at the ankle.
- Superficial thrombophlebitis – This classically presents as tender hard or red-appearing swollen superficial veins. Superficial thrombophlebitis may be associated with DVT and should be further evaluated with venous ultrasound.[3]
- Cellulitis – Cellulitis, like DVT, causes warmth, swelling, and redness of an affected extremity. Furthermore, the two conditions can co-exist and, therefore, ultrasound may be necessary in such presentations.
- Lymphedema – This is a cause of chronic edema. Since there are no distinguishing factors between lymphedema and edema associated with DVT, ultrasound is generally appropriate when there is acute increase in swelling or pain.
- Popliteal (Baker's) cyst – This is often distinguished from DVT by its presentation as posterior knee pain with knee stiffness and a swollen mass behind the knee. Ultrasound is still often performed nonurgently to confirm the presence of a full or partially drained Baker's cyst.
- Interstitial edema – Lower extremity edema is commonly found in patients with heart failure, liver disease, or can be associated with medications like dihydropyridine calcium channel blockers (amongst others). The edema in these cases is usually bilateral but can be asymmetric if accompanied by underlying venous pathology. Signs of inflammation are usually not present, and if the Wells' score is low risk and the D-dimer is negative then no further investigations need to be performed.[3]

Treatment

Anticoagulation is the mainstay for management of DVTs with the goal of preventing progression, recurrence, and providing acute relief of symptoms. Man-

agement of DVTs can be categorized into an acute phase and a chronic phase. The acute phase typically includes the first 3 to 6 months after onset. Most instances of DVT can be managed on an outpatient basis except in severe cases such as proximal clots (eg, common femoral and/or iliac veins), phlegmasia/limb ischemia, significant comorbidities such as end stage renal disease, and high bleeding risk.[6]

Among the options for anticoagulation are vitamin K antagonists such as warfarin, direct oral anticoagulants (DOAC), and low-molecular-weight heparin (LMWH) (**Table 2**), as well as unfractionated heparin. The optimal choice depends on the patient's comorbidities, renal function, and often financial and practical considerations, as well (eg, dosing frequency and route).

Acute Treatment

Typical options for initial treatment of DVT include the DOAC medications which can, but not necessarily need to, be preceded by parenteral anticoagulation (eg, LMWH). If choosing warfarin, initial parenteral anticoagulation is needed for at least 5 days until INR is >2.0 on two occasions that are 24 hours apart.[3] Options for parenteral bridging include heparin derivatives such as LMWH or unfractionated heparin (UFH).

Guidelines for anticoagulation recommend DOACs for most non–cancer-related DVTs, especially compared with warfarin. Meta-analyses have demonstrated evidence of lower rates of major and even fatal bleeding with DOACs compared with warfarin.[3] Furthermore, vs warfarin, DOACs have more predictable pharmacokinetics and rapid onset of action. Warfarin also requires frequent blood draws for monitoring of INR.

Certain clinical scenarios warrant use of specific anticoagulants (**Table 3**). In a study of 120 high-risk patients with antiphospholipid syndrome, warfarin was shown to have lower rates of thromboembolic events compared to rivaroxaban.[3] LMWH is the standard for patients with cancer. When compared with DOACs, LMWH has lower rates of major bleeding due to GI events. However, in non-GI cancers, DOACs are considered an acceptable alternative, showing noninferior effects on bleeding risks and even lower rates in recurrence.[3]

In the acute phase, isolated proximal DVTs are usually managed with 3 to 6 months of anticoagulation. If the isolated DVT occurs distally in calf, management options include a shorter course of (4-6 weeks) or even serial compression ultrasonography without starting anticoagulation for monitoring propagation of the clot.[10]

Chronic Treatment

Extension of treatment after the first 3 to 6 months usually depends on stratification based on risk of recurrence. The risk of recurrence is >3% in individuals with active cancer, active autoimmune disease, or antiphospholipid syndrome. For such patients, it is recommended to annually assess their risk of DVT and need for anticoagulation. Provoked DVTs also fall under this category of long-term anticoagulation; however, the characterization of provoked vs unprovoked DVTs is no longer used to determine length of treatment due to presence of predisposing factors. Postthrombotic syndrome or venous insufficiency occurs in 25% to 50% of patients at 3 to 6 months after diagnosis.[3]

In cases such as trauma resulting in fractures, minor surgery with anesthesia for more than 30 minutes, or acute illness resulting in immobility for more than 3 days, prolonged anticoagulation therapy is not warranted.[3]

Case Conclusion

When the Wells' score is applied, this patient gets 1 point for her pain along the deep venous system. Based on this, the patient has moderate risk with a 17% pretest probability.[7-9] Per current recommendations, the next step would be to complete a high-sensitivity D-dimer blood test. The patient has a negative high-sensitivity D-dimer testing completed in the urgent care. In moderate-risk patients with a negative high-sensitivity D-dimer by point-of-care testing, DVT can be ruled out with a negative predictive value of 96.1% and no further testing.[7-9] The patient is safely sent home with primary care follow-up. ■

References

1. American Heart Association. What is venous thromboembolism? Available at: https://www.heart.org/en/health-topics/venous-thromboembolism/what-is-venous-thromboembolism-vte. Accessed July 23, 2021.
2. Phillippe HM. Overview of venous thromboembolism. Am J Man Care. Available at: https://www.ajmc.com/view/overview-of-venous-thromboembolism. Accessed July 23, 2021.
3. Chopard R, Albertsen IE, Piazza G. Diagnosis and treatment of lower extremity venous thromboembolism: a review. *JAMA*. 2020;324(17):1765–1776.
4. Phillippe, Haley M. Overview of Venous Thromboembolism. *Am J Manag Care*. 2017;23: S376-S382
5. Horner D. New NICE guidelines on diagnosis and management of venous thromboembolism. St. Emlyn's. Available at: https://stemlynsblog.org/nice-guidelines-vte/. Accessed October 15, 2021.
6. Cohoon KP, Heit JA. Inherited and secondary thrombophilia. *Circulation*. 2014;129:254–257.
7. Wells PS, Hirsh J, Anderson DR, et al. Accuracy of clinical assessment of deep-vein thrombosis. *Lancet*. 1995;345(8961):1326-30.
8. Wells PS, Anderson DR, Bormanis J, et al. Value of assessment of pretest probability of deep-vein thrombosis in clinical management. *Lancet*. 1997;350(9094):1795-8.
9. Wells PS, Anderson DR, Rodger M, et al. MJ. Evaluation of D-dimer in the diagnosis of suspected deep-vein thrombosis. N Engl J Med. 2003 Sep 25;349(13):1227-1235.
10. Wilbur J, Shian B. Deep venous thrombosis and pulmonary embolism: current therapy. *Am Fam Physician*. 2017;95(5):295-302.

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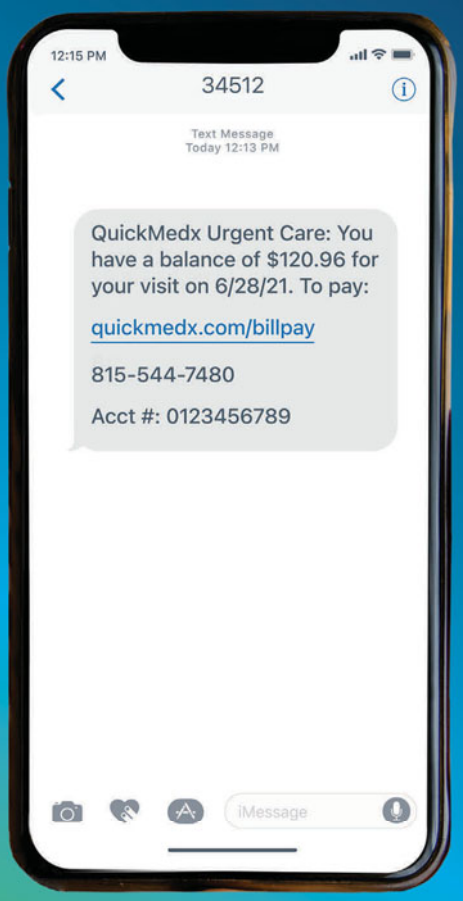

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CME: This article is offered for *AMA PRA Category 1 Credit.*™
See **CME Quiz Questions** on page 11.

Who in a Company Can Bind the Company in a Contract?

Urgent message: While legal documents may define who in an urgent care is able to legally obligate the company, such as when ordering a service or signing a contract, there are cases where "unauthorized" individuals can still bind the company—meaning the organization must have clear internal policies on signing authority.

ALAN A. AYERS, MBA, MAcc

Let's say that a physician employed at an urgent care facility is working on a Saturday when a toilet backs up. It's the weekend, so of course, he's unable to reach management. Frustrated that no one on the staff can resolve the issue, he takes it upon himself to call a buddy who owns a 24-hour plumbing service. The contractor arrives in 10 minutes and gets it fixed in a jiffy.

However, this isn't a plumber with whom the urgent care has previously done business, and there's no prior billing arrangement. On Monday morning, the urgent care's administrative office receives a sizable invoice from the plumber—including his rates and extra charges for after-hours work.

When the CFO dismisses the charge as "unauthorized," the plumber sends her a screenshot showing the precise time and phone number from which the physician ordered the service over the weekend.

What happens now?

The plumber can begin collections proceedings and try to get his money. However, he will have to hire a collections attorney and may spend months fighting the charges, eating up valuable time he could be spending with *paying* customers.

The purpose of the article is to help urgent care owners and operators understand this issue more clearly and to provide suggestions on how to avoid this scenario.

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Background

Parties who can sign a contract for a company are those who've been given the authority to represent their company in contract negotiations. As we will discuss in detail, this authority can be either *actual* authority or *apparent* authority. Establishing and determining who has the proper authority to sign contracts on behalf of a company and bind the business to an obligation is a critical question—as was the case with the weekend plumber—because confusion and ambiguity with this can result in a contract dispute and possible litigation.[1]

This scenario is not uncommon, as vendors and bill collectors frequently hear that an employee wasn't authorized to sign an agreement. And how would a ven-

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

In Practice

An urgent care footprint changes hands and the document shredding vendor stops by to establish a contract for continued services. The new owner did not wish to continue these services and intentionally did not assume the contract. Refusing to take "no" for an answer, the vendor's salesperson presented a 3-year renewal agreement on his iPad to the urgent care's receptionist, explained that it was to assure continuity of services, said he had the CEO's approval, and the receptionist unwittingly signed it on behalf of the company.

The receptionist had no authority to bind the company in any contract, particularly one presented under false pretenses.

Several months later, the company had paid none of the invoices, had attempted to cancel the contract, and found itself in "collections" as the shredding company claimed the urgent care company was in "breach."

The urgent care company informed the vendor the receptionist had no signing authority and thus there was no valid contract. The vendor didn't care; they said it was "signed by an employee" and was thus valid.

The problem, perhaps, is that the contract was not cancelled immediately when management learned about it (ie, when the first invoices as received) and the centers continued utilizing service for over 8 months, which would have reaffirmed the "apparent authority."

The urgent care chain eventually paid the past-due balances and retained the services for another year before "buying out" of it. Had the urgent care cancelled the contract immediately upon learning about the unauthorized signatory, it perhaps would have had a different outcome.

dor arriving at an urgent care on a Saturday afternoon know (and confirm) that a doctor has the authority to sign for the company? Let's discuss.

Who Has Signing Authority?

When a business like an urgent care center is incorporated, it's considered its own legal entity; as such, the owner can't simply sign her name on business contracts on behalf of the company. Instead, this is governed by the company's bylaws, which will state who is an authorized representative and may bind the company by signing an agreement.[1]

What is 'Actual Authority' and 'Apparent Authority'?

There are two types of authority an individual may have in signing. Urgent care owners and managers should be clear on the differences between the two.

When dealing with a business for most day-to-day purchases, it's not practical for a vendor to inspect the corporate bylaws to determine who has signature authority. "Apparent authority" enables a vendor to rely on appearances and representations made that the person signing is authorized to do so.

Actual authority refers to *specific* powers, expressly conferred by a principal (such as an urgent care owner) to an agent (doctor, administrator, or business manager) to act on the principal's behalf.[2]

The Second Circuit has stated that actual authority stems from "direct manifestations from the principal to the agent."[3] However, a court may also infer actual authority "from words or [c]onduct which the principal has reason to know indicates to the agent that [s]he is to do the act."[4]

Apparent authority is when an agent has been given *implicit* authority which can be implied through various actions of those whom the agent represents.[1] In other words, apparent authority stems from manifestations by the principal to third parties or to the world at large.[5] The specific powers of implied or apparent authority depend on the circumstances; they are sometimes determined by the usages and customs of a trade, business, or profession.[6]

Thus, if a third party enters into a contract with such an agent operating under apparent authority, that contract may still be legally binding on the principal.

It's important to understand that apparent authority gives rise to *agency by estoppel*.[7] This means that a principal's representation to a third party that an agent has authority to act on their behalf, when acted upon by that third party by entering into a contract with the agent, operates as an estoppel—this stops the principal from denying the contract is legally binding.[6]

One court has stated that "[a]pparent authority ends when it is no longer reasonable for the third party with whom an agent deals to believe that the agent continues to act with actual authority."[8]

As to the acts of an agent giving rise to liability against the principal, the principal may be held directly liable if the agent "acts with actual authority or the principal

Center staff can bind an urgent care company, particularly for minor purchases, even if not authorized by any corporate purchasing policy. When this occurs, a company can't renege and say the service "wasn't authorized." Salespeople take advantage of this, stopping by and getting a receptionist or front office person to "sign" and then claiming the purchase was "authorized."

ratifies the agent's conduct."[9]

However, it's important to note that any apparent authority that might otherwise exist "vanishes" with "the third person's knowledge, actual or constructive, of what the agent is, or what he is not, empowered to do for his principal."[10]

Thus, the plumber in our example wouldn't have much support for an apparent authority argument if he knew his buddy (the urgent care doctor with the broken toilet) couldn't sign for the company.

Signing Authority Disputes

Obviously, most disputes relating to proper signing authority arise when apparent authority is raised. Issues concerning signing authority can be highly fact-intensive. The outcome of a dispute can be dependent on a number of factors, including but not limited to:

- An agent's past conduct
- An agent's job duties and title
- Whether the agreement is a consumer or business-to-business contract

How to Avoid This Scenario

Urgent care owners and managers can avoid these disputes by drafting clear corporate policies regarding signing authority.[11,12] Also, if an employee is only authorized to sign on behalf of their company in specific circumstances, this can be incorporated into the policy.

The signing authority policy should include a list of definitions; when an individual has authority to execute contracts on behalf of the urgent care; details on purchasing limits; the approval process for expenditures; and if delegations of signature authority is permitted. A code of ethics is also a wise addition.

Take-Home Points

- There are two kinds of authority that empower an individual to sign contracts or represent the urgent care operator: *actual* authority and *apparent* authority
  - *Actual authority* refers to specific powers, expressly conferred by a principal (such as an urgent care owner) to an agent (doctor, administrator, or business manager) to act on the principal's behalf
  - *Apparent authority* is when an agent has been given *implicit* authority which can be implied through various actions of those whom the agent represents
- Apparent authority "vanishes" once a third party becomes aware that an employee has not been empowered to act for the principal
- Disputes relating to proper signing authority may arise when apparent authority is raised. Outcomes of such disputes can be dependent on several factors, including:
  - An agent's past conduct
  - An agent's job duties and title
  - Whether the agreement is a consumer or business-to-business contract

Takeaway

In the case of our plumber and doctor, either the urgent care owner would settle with the plumber; the doctor would be given an education on actual authority and told to pay out of his own pocket; or the plumber might claim that the doc had apparent authority and seek relief in the courts.

Actual authority should be provided in writing to provide evidence of an agent's authority and to avoid disputes.[13] ■

References

1. UpCounsel. Who can sign a contract for a company: everything you need to know. *UpCounsel*. Updated October 9, 2020). Available at: https://www.upcounsel.com/who-can-sign-a-contract-for-a-company. Accessed October 6, 2021.
2. Kagan J. Actual authority. *Investopedia*. Available at: https://www.investopedia.com/terms/a/actual-authority.asp. Accessed October 6, 2021.
3. *Reiss v Societe Centrale Du Groupe Des Assurs. Nationales*. 235 F.3d 738, 748 (2d Cir. 2000).
4. *United States v Intl. Blvd. of Teamsters*. 986 F.2d 15, 20 (2d Cir. 1993).
5. *Villar v City of N.Y.* No. 09-cv-7400 (JSR), 2021 U.S. Dist. LEXIS 123450, at *10 (S.D.N.Y. July 1, 2021).
7. *BP Oil Corp. v Mabe*. 279 Md. 632, 644-45, 370 A.2d 554 (1977).
8. *McAdory v MNS & Assocs., LLC*. No. 3:17-cv-00777-HZ, 2021 U.S. Dist. LEXIS 106384, at *13-14 (D. Or. June 7, 2021).
9. *Meyer v Holley*. 537 U.S. 280, 286, 123 S. Ct. 824, 154 L. Ed. 2d 753 (2003).
10. *Com. Solvents, Inc. v Johnson*. 235 N.C. 237, 242, 69 S.E.2d 716 (1952).
11. Montclair University. Signing authority policy. Available at: https://www.montclair.edu/policies/all-policies/signing-authority-policy/. Accessed October 6, 2021.
12. Carnegie Mellon University. Signature authority for legally binding commitments and documents. Available at: https://www.cmu.edu/policies/financial-management/signature-autority.html. Accessed October 6, 2021.
13. Garner BA. *Black's Law Dictionary*. 7th ed. Egan MN: Thomson Reuters Legal; 1999.

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Weight Loss, Abdominal Pain, and Distension in a 74-Year-Old Woman

Urgent message: Not all GI complaints can be attributed to gastrointestinal pathology; symptoms of dyspepsia, vomiting, early satiety, weight loss, and abdominal pain may also be from a pelvic etiology.

FABRIZIA FAUSTINELLA, MD, PHD and L. ALEXANDRE FRIGINI, MD

Introduction

Gastrointestinal complaints are common in ambulatory centers, urgent care, and in emergency departments. The symptoms of abdominal pain, nausea, and vomiting account for 12% to 15% of ED visits.[1]

Several non-GI intra-abdominal, endocrine, and pelvic disease processes can manifest with GI symptoms, notably ovarian masses, abdominal aortic aneurisms, diabetic ketoacidosis, Addison's disease, nephrolithiasis, and others.[2]

Previously documented diagnoses of GI disease, such as *H pylori*, gastritis, GERD, PUD, IBS, etc., should not preclude the clinician from suspecting the presence of new problems and proceeding with further investigation.

Case Presentation

A 74-year-old woman presented to our clinic with complaints of nausea, vomiting, and worsening abdominal pain for 3 days. Patient stated that she was unable to keep any food or water down. She denied hematemesis or coffee-ground emesis. No fever or chills.

The abdominal pain was described as generalized but seemed to be more prominent in the lower quadrants.

A comprehensive review of systems was positive for weight loss and several GI symptoms which included progressively worsening abdominal distension, flatulence, bloating sensation, early satiety, decreased appetite, constipation alternating with diarrhea, and epigastric and retrosternal burning sensation over a period of many months. There was no family history of ovarian malignancy to the patient's knowledge.

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The patient reported that the abdominal distension was starting to limit her movements and was keeping her from breathing normally, with resulting shortness of breath. She also noticed swelling of the feet and an-

Author affiliations: Fabrizia Faustinella, MD, PhD, FACP, Department of Family and Community Medicine, Baylor College of Medicine. **L. Alexandre Frigini, MD,** Department of Diagnostic and Interventional Radiology, Baylor College of Medicine. The authors have no relevant financial relationships with any commercial interests.

Figure 1. Axial image with measurements.

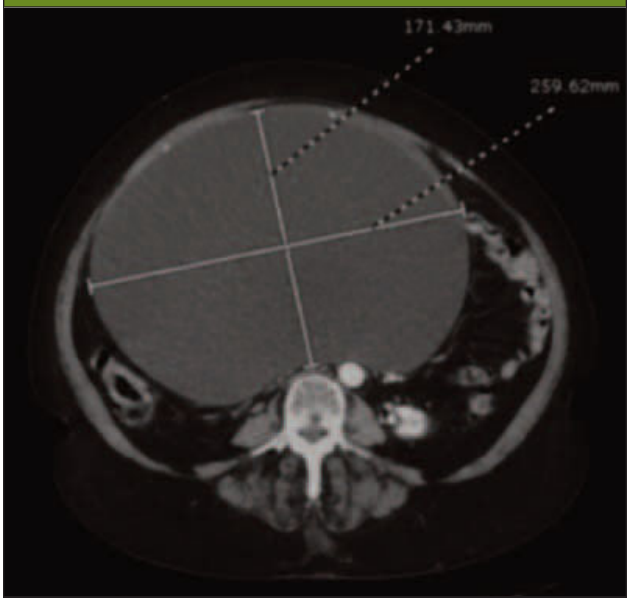
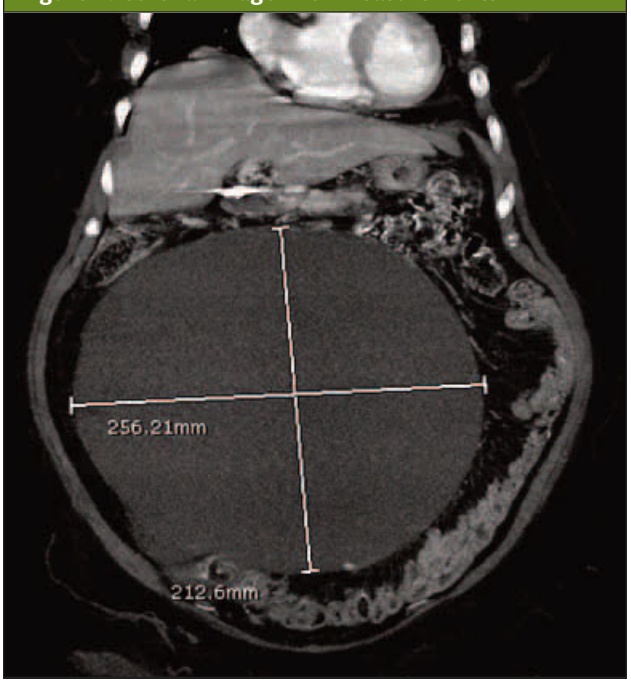


Figure 2. Coronal image with measurements

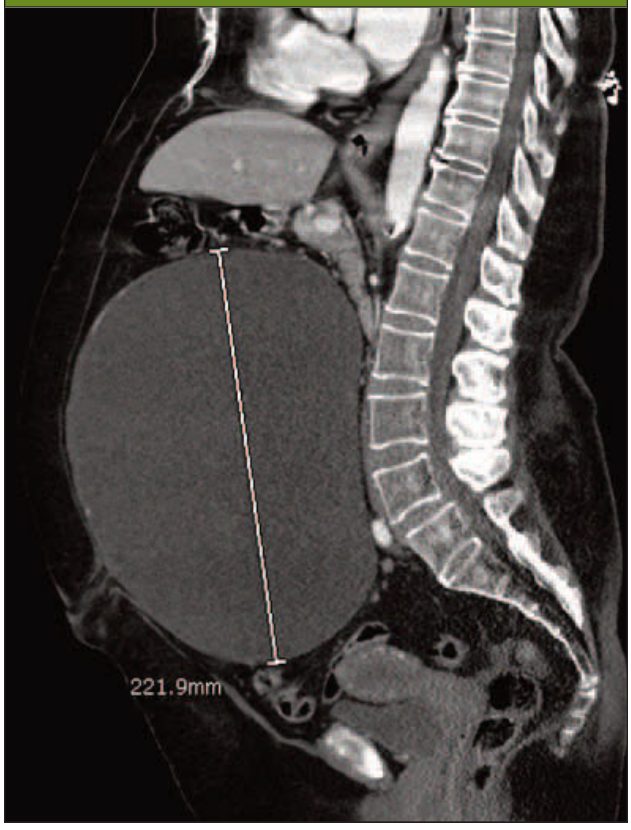


kles for 2 weeks prior to presentation.

Review of the patient's EMR revealed many office visits for GI complaints, dating back to at least 2014, for which she was prescribed a variety of PPIs, H_2 blockers, sucralfate, dicyclomine (Bentyl), and GI cocktails.

Patient's social history and medical history were significant for a cholecystectomy performed in 2015, a

Figure 3. Sagittal image with measurement.



diagnosis of *H pylori* infection in 2018 (each followed by adequate treatment), allergic rhinitis, and degenerative joint disease.

Patient's medications at the time of the visit included famotidine (Pepcid) 20 mg PO QD and cetirizine HCl (Zyrtec) 10 mg PO QD.

Physical exam revealed a well-developed woman, alert and cooperative, with:

- BP 130/82, HR 110, temp 97.5° F, RR 18, SpO_2 97%
- Cardiovascular: RRR, no rubs/gallops/murmurs
- Pulmonary: normal breath sounds
- Abdomen: significant distension, soft, normal BS, no fluid wave, generalized tenderness, particularly in the lower quadrants; no rebound tenderness, no rigidity
- Ext: pedal and ankle edema bilaterally

Results of diagnostic studies:

- CBC showed mild anemia, H/H 11.2/34.8, MCV 94.8
- A comprehensive metabolic panel and lipase were within normal limits
- A CT abdomen and pelvis with contrast was re-

quested and was read as follows:

- Reproductive organs: large cystic mass measuring 25.1 x 17.9 x 21.7 cm likely represent a left ovarian cystic neoplasm (see **Figures 1**, **2**, and **3**).

Differential Diagnosis

Prior to the CT of the abdomen/pelvis, the differential diagnosis was quite broad and included gastric mass, pancreatic pseudocyst, kidney mass, liver pathology/hepatomegaly, hepatosplenomegaly, pyloric stenosis, and so forth. The CT showed a large left ovarian cystic neoplasm with no evidence of malignant features. So, the differential became much smaller and largely limited to the possibility of a large cystadenoma, serous vs mucinous vs endometrioid, or clear-cell cystadenoma.

Course And Treatment

The patient was referred to gynecology. Further laboratory investigation included a CA-125 level which was normal. A chest CT did not show evidence of metastatic disease. The patient underwent a THS with BSO. Pathology tissue exam showed a large serous cystadenoma of the left ovary, benign cervix with nabothian cysts, negative for dysplasia, endometrial polyps, atrophic endometrium, unremarkable right ovary, and right fallopian tube with no histopathological alterations.

Discussion

Ovarian cystadenomas are benign epithelial neoplasms with an excellent prognosis. Epithelial neoplasms of the ovary are classified as benign, borderline, or malignant tumors. They account for 60% of all ovarian tumors and 40% of benign tumors.[3]

The two most frequent types of cystadenomas are serous and mucinous cystadenomas, whereas endometrioid and clear-cell cystadenomas are rare. Despite advances in imaging studies, a definitive diagnosis of cystadenoma is achieved by histopathological examination of the surgical specimen.

The symptoms and signs associated with cystadenomas generally include pelvic pain, bloating sensation, and discomfort. However, larger masses can trigger many more GI symptoms due to the direct pressure on the bowel and the stomach, as in this patient.

Several imaging techniques are useful in the diagnosis of ovarian cystadenomas. They include pelvic ultrasonography, computed tomography, and magnetic resonance imaging.[4] The features more suggestive of a benign cystic neoplasm include unilocularity of the cyst, minimal or no septation, thin walls, and absence of papillary projections.[4]

"Management of ovarian cystadenomas depends on symptoms, size of the cyst, age of the patient, medical history, and menopausal state of the patient."

The tomographic appearance of our patient's cyst was consistent with a benign process.

Although our patient underwent a cholecystectomy in 2015, the only imaging study available at that time in our EMR was an abdominal US which showed the presence of cholelithiasis. There was no reference to any visible intra-abdominal mass. All we can infer is that the ovarian cyst must have been present and limited to the pelvic area at that time, only to grow exponentially in the following years.

The management of ovarian cystadenomas depends on symptoms, size of the cyst, age of the patient, medical history, and menopausal state of the patient.[5-7]

Case Resolution

Given the size of the cyst and the symptoms our patient was experiencing, a TAH with BSO was performed without delay. After surgery, the patient reported a marked improvement of her GI symptoms, with resolution of the nausea, vomiting, abdominal distension, bloating sensation, abdominal pain, early satiety, and constipation/diarrhea.

Conclusion

This case is a reminder that clinicians should keep an open mind when evaluating a patient with recurrent GI symptoms who has been previously diagnosed with a number of GI ailments. ■

References

1. Myer PA, Mannalithara A, Singh G, et al. Clinical and economic burden of emergency department visits due to gastrointestinal diseases in the United States. *Am J Gastroenterol*. 2013;108(9):1496-1507.
2. Viniol A, Keunecke C, Biroga T, et al. Studies of the symptom abdominal pain—a systematic review and meta-analysis. *Fam Pract*. 2014;31(5):517–529.
3. Buy JN, Ghossain MA, Sciot C, et al. Epithelial tumors of the ovary: CT findings and correlation with US. *Radiology*. 1991;178(3):811-818.
4. Jeong YY, Outwater EK, Kang HK. Imaging evaluation of ovarian masses. *Radiographics*. 2000;20(5):1445-1470.
5. Fatema N, Mubarak Al Badi M. A postmenopausal woman with giant ovarian serous cyst adenoma: a case report with brief literature review. *Case Rep Obstet Gynecol*. 2018;2018:5478328.
6. Gonzalez DO, Minneci PC, Deans KJ. Management of benign ovarian lesions in girls: a trend toward fewer oophorectomies. *Curr Opin Obstet Gynecol*. 2017;29(5):289-294.
7. Muto MG. Ovarian cyst overview. In: *UpToDate*. Available at: https://www.uptodate.com/contents/ovarian-cysts-beyond-the-basics. Accessed May 27, 2021.

ABSTRACTS IN URGENT CARE

- POCUS in Ocular Presentations
- Experiencing—and Handling—Patient Biases
- Self-Swabbing for STIs
- CAM Boots for Toddler's Fracture?
- Treating Children with Bronchiolitis
- Azithromycin in COVID-19

IVAN KOAY, MBCHB, FRNZCUC, MD

Point-of-Care Ultrasound for Eye Examination

Take-home point: Ocular ultrasound (OUS) can be a quick, safe, and effective way to assess eye complaints and complements the clinical exam.

Citation: Manton J, Henry C. Benefits to utilising ultrasound in examining the eye. *Emerg Med Australas*. 2021;33:745–747.

Relevance: As availability of point-of-care ultrasound (POCUS) becomes more common, urgent care clinicians will be expected to become more comfortable in using this technology. Incorporating POCUS into UC training programs should be considered.

Study summary: This article looked at the benefits and practical use of OUS in the assessment of patients presenting to emergency rooms with eye complaints. OUS can detect issues in the anterior segment such as lens dislocation, foreign body, and ocular movements. In the the posterior segment, OUS can be used to detect retinal detachment, vitreous hemorrhage, papilledema, and retrobulbar hemorrhage—all difficult to detect using the traditional slit lamp examination. A previous meta-analysis has shown excellent test characteristics of OUS for detecting retinal detachments, specifically (94% sensitivity and 96% specificity). The authors therefore suggest that OUS be included as part of training in the context of serving as an extension of the physical exam. The benefits of OUS would be confirmation of time-critical, vision-threatening diagnoses at the bedside without immediate ophthalmologist consultation.

Editor's comments: This was an editorial piece representing the authors' own views based on current evidence. Studies quoted relied on varying methodologies to collate data. ■

Ivan Koay, MBChB, FRNZCUC, MD is a Dublin, Ireland-based urgent care physician, as well as an examiner and trainee supervisor for the Royal New Zealand College of Urgent Care Education Faculty for the Urgent Care Medicine Fellowship, Royal College of Surgeons Ireland.

Clinician Experiences of Patients' Biases

Take-home point: Female and non-Caucasian clinicians frequently have negative experiences attributable to patients' inherent biases. Healthcare systems would benefit from acknowledging these occurrences and having policies in place to support the affected providers.

Citation: de Bourmont S, Burra A, Nouri S, et al. Resident physician experiences with and responses to biased patients. *JAMA Netw Open*. 2020;3(11):e2021769.

Relevance: Awareness of the experience of female and nonwhite clinicians is important for supporting a healthy work environment.

Study summary: This article reflects an electronic survey sent to second- and third-year internal medical residents at three academic medical centers in California and North Carolina. The survey asked participants about their experiences with biased patient behaviors such as belittling, use of demeaning stereotypes, role questioning, refusal to engage with the residents, and sexual harassment. Residents were then asked how they responded to these behaviors, their beliefs as to whether they felt institutional policies were necessary, and any specific barriers they perceived in responding to the incidences.

The authors noted that 70% of the 331 residents responded to the survey, and that they were diverse in gender identity and race/ethnicity. Ninety-eight percent reported experiencing or witnessing biased behavior from patients within the previous year. Experiences with biased patient behavior were more common for residents who identified as women, African-American, Latinx, or Asian. Nineth-six percent of female residents reported encountering role-questioning behaviors at least once within the past year. Eighty-nine percent felt that training for medical students, residents, and faculty on how to handle discriminatory behavior from patients is necessary.

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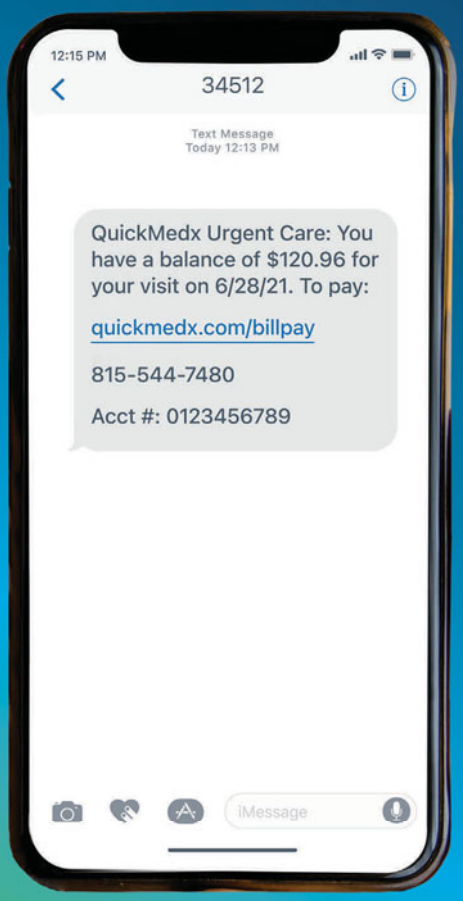

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Editor's comments: Limitations of this survey study include recall bias and small sample size. Nonbinary gender identities of residents were not accounted for. ■

Swabbing Female Patients for STIs

Take-home point: Patient-obtained vaginal self-swabs are noninferior to provider-obtained endocervical swabbing for the diagnosis of *Neisseria gonorrhoeae* (GC) and *Chlamydia trachomatis* (CT).

"Education surrounding the inutility of frequently considered interventions for bronchiolitis seems to have value in standardizing care and reducing harm in the treatment of this very common childhood illness."

Citation: Chinnock B, Yore M, Mason J, et. al. Self-obtained vaginal swabs are not inferior to provider-performed endocervical sampling for emergency department diagnosis of *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. *Acad Emerg Med*. 2021;28(6):612-620.

Relevance: Vaginal self-swabbing for STIs in women who otherwise do not require a pelvic exam is more time efficient and preferred by patients and clinicians. Understanding the accuracy of self-swabbing is important before widespread adoption of this practice.

Study summary: This was a prospective observational cohort study comparing two methods of GC/CT specimen collection in an academic urban hospital ED. Female patients ≥18 years old who were judged by the treating practitioner to need GC/CT testing were included in the study. Enrolled patients had samples collected by both self-obtained vaginal swabs (SOVS) and provider-performed endocervical swabbing (PPES), with the PPES collected during standard pelvic examination. Participants were asked to complete a survey regarding the methods of swab collection at the end of the procedures.

The authors found that of the 515 patients who had both SOVS and PPES performed, 17% were positive for either GC or CT (or both). Of these patients, 34% had infection with GC, 54% with CT, and 12% with coinfection. SOVS had a sensitivity of 95% (95% CI = 88% to 99%) for the detection of NG/CT when compared with PPES. Participant responses showed 93% felt that collecting a self-sample is acceptable; 75% preferred the idea of SOVS to PPES, with 28% concerned about doing SOVS incorrectly.

Editor's comments: The majority of the participants were Latinx, making the data's generalizability to other populations limited. The study was terminated earlier than planned due to the COVID-19 pandemic and therefore subject enrollment was somewhat lower than planned. Regardless, this study lends support to a growing body of evidence that SOVS is a reasonable approach for GC/CT testing. Because the method is less invasive and onerous for patients, this may decrease barriers in women reluctant to seek testing/treatment for STI. ■

Controlled Ankle Motion (CAM) Boots for Toddler's Fractures

Take-home point: CAM boots can be used as a safe alternative to traditional above-knee casts for toddler's fractures.

Citation: Bradman K, Stannage K, O'Brien S, et al. Randomised controlled trial comparing immobilisation in above-knee plaster of Paris to controlled ankle motion boots in undisplaced paediatric spiral tibial fractures. *Emerg Med J*. 2021;38(8):600-606.

Relevance: Small children tolerate casting poorly. Therefore, a less restrictive alternative is desirable for toddler's fractures.

Study summary: This was a single center, prospective randomized controlled trial comparing immobilization with above-knee plaster-of-Paris casts (AK-POP) to CAM boots in proven or suspected toddler's fractures presenting to an emergency room in Western Australia. Patients were randomized to receive AK-POP or CAM boot sized to fit the patient's foot length. Children randomized to AK-POP had their plaster reinforced or replaced at 7–10 days with fiberglass cast or overlay to permit weightbearing, as standard procedure. A modified comfort and care questionnaire (CCQ) and pain score were completed by caregivers at various points during treatment.

The authors found 59 patients (31 CAM, 28 AK-POP) had radiographic evidence of toddler's fractures and 25 patients (10 CAM, 15 AK-POP) had suspected fractures but with no fracture visible on radiograph. They noted that CAM boots were safe in respect to fracture healing, but conferred benefits with regards to a significantly quicker return to weightbearing and normal gait.

Editor's comments: This was a small, single center study and there was a higher number of patients lost to follow-up in the CAM boot group. However, these results suggest that CAM boots in uncomplicated toddler's fractures are a reasonable alternative to casting. It is prudent to confer with local pediatric orthopedic specialists before adopting this new practice. ■

Treatment of Bronchiolitis in Children

Take-home point: Using evidence-based clinical decision-making tools for the treatment of bronchiolitis reduces the

impact of unnecessary investigations and treatment and improves patient outcomes

Citation: Haskell L, Tavender EJ, Wilson CL, et al. Effectiveness of targeted interventions on treatment of infants with bronchiolitis: a randomized clinical trial. *JAMA Pediatr*. 2021;175(8):797-806.

Relevance: Care for bronchiolitis is notoriously variable, and most interventions have little effect on outcomes—making it a prime target for use of evidence-based clinical decision tools.

Study summary: This was a multicenter cluster randomized control trial conducted in 26 institutions in Australia and New Zealand. The control institutes received electronic and printed copies of the Australasian Bronchiolitis Guidelines. The intervention institutes received education targeting nursing and medical clinicians who managed infants with bronchiolitis in the ED and pediatric inpatient wards. Educational interventions were developed using the Template for Intervention Description and Replication checklist framework following a qualitative study identifying local barriers to evidence-based bronchiolitis care. Analysis was by intention-to-treat (ITT) with primary outcomes being the proportion of infants in whom all five Australasian Bronchiolitis Guideline interventions known to have no benefit (chest radiography, albuterol, glucocorticoids, antibiotics, and epinephrine) were avoided in the first 24 hours of hospitalization.

The authors analyzed 3,727 participants from all institutions that participated. There was a 14.1% difference in rates of compliance during the first 24 hours of hospitalization, favoring the intervention group for all five bronchiolitis guideline recommendations, with the greatest change seen in albuterol and chest x-ray use. Compliance was improved in the intervention group for patients in the ED (risk difference, 10.8%; 95% CI, 4.1%-17.4%; p = .002), as inpatients (RD, 8.5%; 95% CI, 2.7%-14.3%; p = .004) and during the total hospitalization (RD, 14.4%; 95% CI, 6.2%-22.6%; p <.001).

Editor's comments: The cluster randomized design improves generalizability of these findings. Education surrounding the inutility of frequently considered interventions for bronchiolitis seems to have value in standardizing care and reducing harm in the treatment of this very common childhood illness. ■

COVID-19 Abstract
Azithromycin Use in COVID-19

Take-home point: A single dose of azithromycin did not result in greater likelihood of being symptom-free from COVID-19 at day 14 compared with placebo.

Citation: Oldenbrug C, Pinsky B, Brogdon J, et. al. Effect of oral azithromycin vs placebo on COVID-19 symptoms in outpatients with SARS-CoV-2 infection—a randomized clinical trial. *JAMA*. 2021;326(6):490-498.

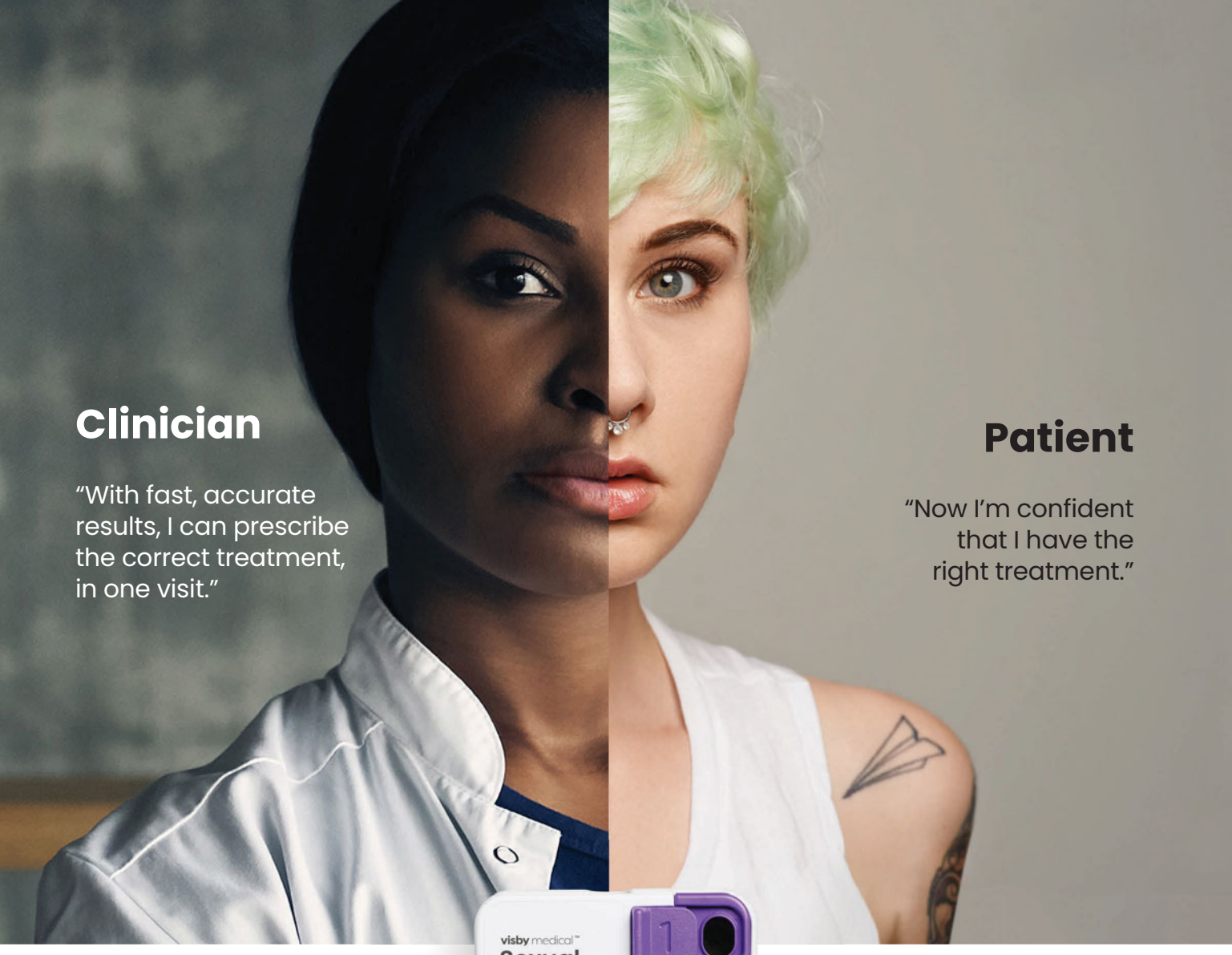
Relevance: During the pandemic, there have been a variety of therapies purported to reduce the severity and duration of COVID-19 disease. Patients commonly request antibiotics, specifically azithromycin, when presenting to UC for respiratory complaints.

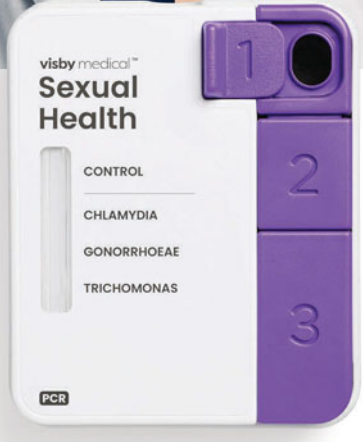
"Patients with confirmed COVID-19, unsurprisingly, did not benefit from the use of an antibiotic in this well-designed prospective trial."

Study summary: This was a prospective randomized trial evaluating the efficacy of a single dose of 1.2 g of oral azithromycin on self-reported COVID-19 symptoms compared with placebo among outpatients throughout the U.S. Participants were randomized in a 2:1 ratio to azithromycin or placebo. The ratio was chosen to increase the probability that participants received the active study drug without compromising the statistical power. Participants completed online surveys at days 3, 7, 14, and 21 after enrolment to assess outcomes.

The authors enrolled 263 participants; 171 were randomized to azithromycin and 92 to placebo. The proportion of participants reporting being symptom-free at day 14 was not significantly different between groups (approximately 50% of participants in each group). More participants reported gastrointestinal adverse events in the azithromycin group compared with placebo, such as diarrhea, abdominal pain, and nausea. There were no significant differences in specific self-reported COVID-19 symptoms reported at day 14, either.

Editor's comments: Azithromycin has fallen increasingly out of favor as a preferred antibiotic for treatment of bacterial pneumonia. Patients with confirmed COVID-19, unsurprisingly, did not benefit from the use of an antibiotic in this well-designed prospective trial. While the single dose of 1.2 g of azithromycin is not a common dosing strategy for respiratory infections, this study lends further support that granting "Z-pak" requests doesn't help our patients and can cause significant GI side effects. ■





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Learner Presence Does Not Negatively Impact Patient Experience in Pediatric Urgent Care

Urgent message: Shorter urgent care visits are correlated with higher experience scores. The presence of learners does not negatively impact patient experience scores.

DAVID SKOGLUND, MD, MS; BRIAN LEE, PHD, MPH; and AMANDA MONTALBANO, MD, MPH

Citation: Skoglund D, Lee B, Montalbano A. Learner presence does not negatively impact patient experience in pediatric urgent care. *J Urgent Care Med*. 2021; 16(2):30-36.

Abstract

Objective

The number of trainees seeking pediatric educational opportunities in community outpatient settings is increasing. One underutilized and understudied outpatient care location that may help provide these opportunities is urgent care. Urgent care encounters are expected to be convenient and seamless. As learners are incorporated into these sites, their effect on patient experience requires evaluation.

Methods

All patient encounters from a metropolitan Midwestern pediatric tertiary care organization's three freestanding pediatric urgent care sites in 2018 and 2019 with associated patient experience survey data were included. Encounters were assigned into those with and without learners based on provider shift data. Experience scores were categorized as detractors (scores of 0-6), neutral (7-8), or promoters (9-10). Multivariable regression models examined the relationship between learners and having a promoter experience score, adjusting for imaging performed, medications given, calendar quarter, and standardized length of stay (LOS).

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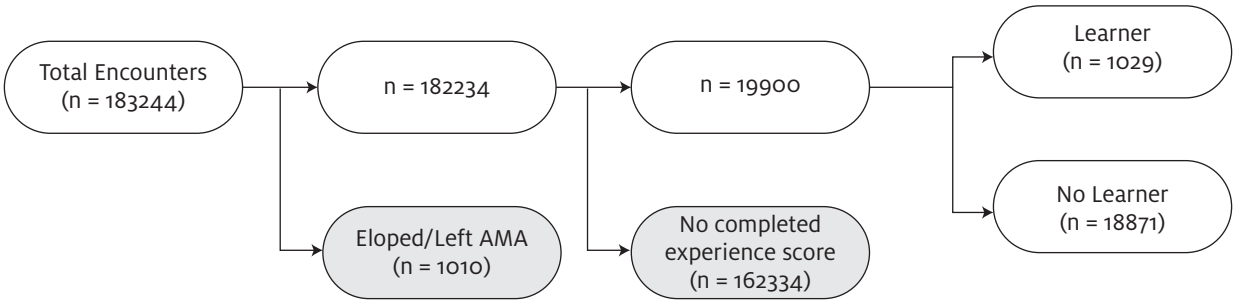
Author affiliations: David Skoglund, MD, MS, University of Missouri-Kansas City School of Medicine; University of Kansas School of Medicine; Division of Urgent Care at Children's Mercy Kansas City. **Brian Lee, PhD, MPH,** University of Missouri-Kansas City School of Medicine; Division of Health Services and Outcome Research at Children's Mercy Kansas City. **Amanda Montalbano, MD, MPH,** University of Missouri-Kansas City School of Medicine; University of Kansas School of Medicine; Division of Urgent Care, Children's Mercy Kansas City; Patient and Family Engagement, Children's Mercy Kansas City. The authors have no relevant financial relationships with any commercial interests.

Figure 1. Encounter Flow Diagram



Results

A total of 19,900 encounters were included in the 2-year study period. The prevalence of learners was not significantly different for each experience score category—detractor 4.7%, neutral 5.1%, and promoter 5.3% (p=0.54). A one standard deviation decrease in LOS was associated with greater likelihood of a promoter score (OR 1.35, 95% CI 1.30-1.39; p-value <0.0001). Learner presence did not significantly change this pattern.

Conclusions

Shorter urgent care visits are correlated with higher experience scores. The presence of learners does not negatively impact patient experience scores. Additional work will include stratifying learners by their training level and determining the impact of learners on provider efficiency.

Introduction

Supervised clinical experience is a critical component of training for all medical professional students. Medical facilities may encounter increasing pressure to provide educational opportunities to host clinical rotations for learners in a variety of fields. Medical school enrollment has increased by 52% since 2002, largely due to the establishment of 29 new accredited medical schools and stimulated by Association of American Medical College (AAMC) encouragement in 2006.[1] PA programs more than doubled in number from 57 in 1993 to 120 by 1999, and growth has persisted since then with 210 currently accredited programs.[2] Approximately 85% of surveyed medical school deans were concerned about the limited clinical opportunities that were available for their students.[1] All medical learners require clinical training, and innovation will be required to increase the number of sites available for clinical training. As medical facilities provide training opportunities, it is necessary to evaluate the impact of those learners on the clinical operations of those facilities.

With nearly half of the projected physician shortage being in primary care, clinical training in this area is especially dire.[3] There is a limited number of community sites for pediatric trainees, necessitating innovation in clinical training opportunities. Pediatric urgent care facilities provide care for acute illness and injuries when the medical home is not available or when such care is beyond their scope.[4] These facilities are staffed with board-certified pediatricians and advanced-practice providers with pediatric experience.

In a 2016 study of pediatric urgent cares, 94% of facilities reported hosting medical trainees (medical students, residents, and advanced practice provider students).[5] While urgent care offers a unique opportunity to provide experience with patient encounters for common complaints, these encounters occur at a fast pace. As patients and families expect to have convenient, quick visits, learner presence at these sites may impact patients' perceived experience during the encounter.

Few studies have reported how learner presence impacts patient experience scores, and no studies have evaluated the impact of medical trainees in the pediatric urgent care setting. The aim of this study was to determine whether learner presence affected patient experience scores among encounters in three pediatric urgent care sites.

Methods

Population

This retrospective study included all patient encounters with a completed postencounter patient experience survey in calendar years 2018 and 2019 at a metropolitan Midwestern pediatric tertiary care organization's three freestanding pediatric urgent care sites. Encounters were excluded if the patient eloped before being seen or refused medical care.

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Table 1. Clinical Care Variables with and without Learners

	Total (n=19,900)	Learner (n=1,029)	No Learner (n=18,871)	p-value
LOS (minutes)	79 (58,107)	84(63,114)	79(58,107)	<0.001
Radiology	4,529	24.98% (n=257)	22.64% (n=4,272)	0.0816
General labs	2,956	10.11% (n=104)	15.11% (n=2,852)	<0.0001
Microbiology	4,444	16.81% (n=173)	22.63% (n=4,271)	<0.0001
Medications	7,013	35.08% (n=361)	35.25% (n=6,652)	0.9129
Wound care	1,992	12.05% (n=124)	9.90% (n=1,868)	0.0251
Discharge script	6,598	26.92% (n=277)	33.50% (n=6,321)	<0.0001

Data

A nationally validated patient experience survey was administered via email, text, or a computerized phone call. Each family received up to three attempts for survey completion. Exclusion rules included patients who received a survey for another encounter from the enterprise within the previous 14 days, patients who had previously requested not to be surveyed, or patients who were not living with a parent or permanent guardian. An overall rating for urgent care was generated from the survey question, "Using a number from 0 to 10, where 0 is the worst visit possible and 10 is the best visit possible, how would you rate this visit?" For this study, experience scores were divided into three groups: 0–6 (detractors), 7–8 (neutral), and 9–10 (promoters).

The provider shift data during our study period includes whether the provider ("preceptor") was working with a learner during their scheduled shift. Our learner population included residents, medical students, and physician assistant students. Our learners were assigned to a physician preceptor each day. The shift data were then merged with the encounter data, based on the encounter admission date and preceptor as documented in the electronic health record (EHR).

We considered encounters as having learners present if they were seen by a physician on a day when that physician was denoted to be precepting a learner on the shift data.

Lastly, the encounter length of stay (LOS), defined as time between registration and discharge, was calculated and then standardized (mean 0, SD 1). Binary indicators were created to indicate whether imaging (ie, radiographs) was performed, laboratory testing was obtained, or medications were administered.

Analysis

The distribution of experience score groupings (ie, detractors, neutral, promoters) was calculated by learner presence, imaging/lab tests, medications provided, and calendar quarter and compared using Pearson's chi-square test. The distribution in standardized LOS was compared between experience scores using the Kruskal-Wallis test. A multivariable logistic model was run to calculate the odds of a promoter score (9–10) based on the presence or absence of learners after adjusting for imaging, labs, medication, calendar quarter, and standardized LOS. Postestimation marginal effects were used to calculate predicted probabilities of a promoter score and associated confidence intervals. Promoter score was used to best highlight the preferred experience score outcome. All analyses were completed using SAS 9.4 software (Cary, NC).

This study was deemed nonhuman subjects research by the IRB at Children's Mercy Kansas City.

Results

From January 1, 2018 through December 31, 2019 there were 19,900 encounters with associated patient experience scores, representing 10.9% of all encounters (182,234) during this period. Relatively few encounters in the study sample had learners present, (1,029, 5.2%) (**Figure 1**). There were more encounters with learners in the winter and fewer in the summer (calendar Q1 225, 3.78%; Q2 177, 3.73%; Q3 281, 6.39%; Q4 346, 7.21%; p<0.0001).

When a learner was present, a significantly lower proportion of encounters had labs, microbiology orders, and written discharge scripts. These encounters had significantly more wound care orders. In-house medication administration and radiology orders did not differ significantly based on whether a learner was present (**Table 1**).

Overall, patient experience scores were mostly promoters (71.5%). The prevalence of learners was not statistically different among the experience score groups—detractor (4.7%), neutral (5.1%), or promoter (5.3%; p=0.54). In general, neutral and promoter scores had higher prevalence of medications given during the encounter (30.0% detractor, 35.8% neutral, 35.8% promoter) and imaging performed (19.2% detractor, 23.5% neutral, 34.2% promoter encounters), respectively.

Table 2: Experience Score with and without Learners

	Total	Learner	No Learner	p-value
Promoter[a]	14,230	72.69% (n=748)	71.44% (n=13,482)	0.387
Neutral[a]	3,785	18.76% (n=193)	19.03% (n=3,592)	0.825
Detractor[a]	1,885	8.55% (n=88)	9.52% (n=1,797)	0.301

[a]Experience score groups, where promoter=9-10, neutral=7-8, and detractor=0-6.

There was an inverse linear relationship between LOS and probability of a promoter score. Shorter LOS was associated with a greater likelihood of promoter experience score (OR 1.35, 95% CI 1.30-1.39, p-value <0.0001). When LOS and learner presence were modeled as an interaction term, the coefficient was not significant (p=0.465), suggesting that the presence of a learner did not significantly modify the relationship between LOS and promotor scores (**Figure 2**).

The presence of a learner did not result in significantly different odds of having a promoter score (OR 1.06; 95% CI 0.92, 1.22; p =0.393) when compared with encounters where learners were absent. After adjusting for LOS, calendar quarter, imaging, and medications, the presence of a learner continued to be nonsignificant (adjusted OR 1.09; 95% CI 0.94, 1.26; p=0.235).

Discussion

This study identifies that learners in an urgent care system in a large Midwestern metropolitan area have no significant impact on patient experience scores (see **Table 2**). For a healthcare system in need of primary care providers and a medical education system in need of training sites, it is important to identify clinical venues within which to expand medical education. Practically, these venues will need to do so without significant changes to their typical operations or impact on patient care. This study suggests that learners can be integrated into urgent care systems without negative impact on patient perception of the care experience.

Previous literature has also documented that the presence of learners does not detract from the rating of patient experience. Medical student involvement in a Labor and Delivery unit was found to have a not-significant impact on patient satisfaction.[7] As students in a neurology clerkship saw more patients, they experienced greater educational value and the clinic became more productive.[8] Medical student participation in an emergency room setting had no impact on satisfaction scores or patient measures of quality of care.[9] Medical student involvement also had no effect on patient satisfaction in a family medicine clinic setting.[10] A systematic review of patient attitudes regarding medical student participation found that, while patient satisfaction is not affected by their participation, this does not necessarily mean that these patients prefer medical student involvement in their care.[11] While these care sites did not show impact on patient satisfaction, it was not clear if the high-pace environment and expectations of timeliness and convenience may result in different findings in pediatric urgent care.

This study did highlight the association of LOS with overall rating of experience in pediatric urgent care. While it would seem that integrating a learner into the workflow of an urgent care would increase overall length of stay, we did not see an impact on overall rating between learner presence or absence when controlling for LOS. In fact, while not statistically significant, the data suggest that presence of learners may mitigate the negative effects on rating of experience even with increasing lengths of stay.

Similarly, increased use of resources (imaging and labs) would likely extend LOS; however, promoters were more likely in encounters using these resources. Therefore, while LOS has a high correlation with experience scores, this association may be mitigated if the family feels their increased time was well spent (eg, extra set of eyes on the patient by a learner, a more thorough examination or use of studies, etc.). While the expectation of a pediatric urgent care is to be efficient, families clearly also value efficacy, safety, and thoroughness.

Limitations

This study has limitations that should be stated. Our data were from a single Midwestern academic pediatric urgent care center, which may limit the generalizability of the outcomes to general urgent care centers, non-academic facilities, or other regions of the country. As our data include <11% of encounters at the studied sites, generalizability may be further limited. While the total number of included encounters was high, the number of those encounters with learners was fairly small. Completion of the experience survey wass voluntary, so there may have been selection bias in which families opted

to submit a completed survey. To fully categorize the effect of learners on an urgent care system, further study will be needed to determine their impact on LOS, care delivery, and provider efficiency. Additionally, with increased number and diversity of learners, investigating learner presence in urgent care should be stratified by learner type. Not to be overlooked, the value of training in urgent care as determined by the learners themselves should also be investigated. ■

Acknowledgments: The authors wish to thank the Children's Mercy Kansas City Division of Urgent Care for their devotion to furthering the education of all of our learners.

Previous presentations: Poster presentation at the Society for Pediatric Urgent Care conference in Fort Worth, TX in 2019. National webinar on 12-12-19 for the Society for Pediatric Urgent Care. Poster presentation at the Pediatric Urgent Care Conference in Los Angeles, California in 2020. National webinar on 9-3-20 for the Academic Pediatric Association and the Society for Pediatric Urgent Care.

References

1. AAMC. U.S. Medical School Enrollment Surpasses Expansion Goal | AAMC. Association of American Medical Colleges Press release. July 25, 2019. Available at: https://www.aamc.org/news-insights/press-releases/us-medical-school-enrollment-surpasses-expansion-goal. Accessed August 20, 2020.
2. Cawley JF, Jones PE, Miller AA, Orcutt VL. Expansion of physician assistant education. *J Physician Assist Educ*. 2016;27(4):170-175.
3. Association of American Medical Colleges. *2014 Physician Specialty Data Book*. Washington DC; 2014. Available at: https://members.aamc.org/eweb/upload/Physician Specialty Databook 2014.pdf. Accessed May 19, 2017.
4. Conners GP, Kressly SJ, Perrin JM, et al. Nonemergency acute care: when it's not the medical home. *Pediatrics*. 2017;139(5:e20170629
5. Montalbano A, Montgomery E, Lee B. Organization for Urgent Care Health 2017 Data. Society of Pediatric Urgent Care Infographic. Available at: https://www2.urgentcarepeds.org/members/OUCH-2017-Infographic.pdf. Published 2018. Accessed August 20, 2020.
6. Co JPT, Sternberg SB, Homer CJ. Measuring patient and family experiences of health care for children. *Acad Pediatr*. 2011;11(3 Suppl):S59-S67.
7. Malhotra T, Thomas S, Arora KS. Impact of medical students on patient satisfaction of pregnant women in labor and delivery triage. *Matern Child Health J*. 2019;23(11):1467-1472.
8. Tanner JA, Rao KT, Salas RE, et al. Incorporating students into clinic may be associated with both improved clinical productivity and educational value. *Neurol Clin Pract*. 2017;7(6):474-482.
9. Bernard AW, Martin DR, Moseley MG, et al. The impact of medical student participation in emergency medicine patient care on departmental Press Ganey scores. *West J Emerg Med*. 2015 Nov;16(6):830-838.
10. Speicher MR, Sterrenberg TR. Students do not reduce patient satisfaction in a family medicine clinic as measured by a nationally used patient satisfaction instrument. *Fam Med*. 2015;47(3):227-230.
11. Vaughn JL, Rickborn LR, Davis JA. Patients' attitudes toward medical student participation across specialties: a systematic review. *Teach Learn Med*. 2015;27(3):245-253.

Investigation and Assessment of Urine Culture Importance in the Evaluation of Uncomplicated Urinary Tract Infections in an Urgent Care Setting

Urgent message: With urinary tract infections being a common presentation to urgent care, firm guidance on the value of culture and sensitivity at time of presentation could both help improve outcomes and reduce unnecessary cost.

DIANNE TREACY LORE DNP, FNP-BC, CPNP-PC and MARLENA SEIBERT PRIMEAU DNP, FNP-BC, NHDP-BC, BSHEC

Citation: Lore DT, Primeau MS. Investigation and assessment of urine culture importance in the evaluation of uncomplicated urinary tract infections in an urgent care setting. *J Urgent Care Med.* 2021;16(2):37-41.

Abstract

Purpose

Urinary tract infections negatively affect over 150 million individuals globally each year. Traditional management encompasses evaluating a urine culture and sensitivity (C&S). Although the guidelines set forth by the American College of Obstetricians and Gynecologists and the European Association of Urology recommend against the use of culture and sensitivity at the outset of treatment of an uncomplicated urinary tract infection, there is no formal policy in place at many primary care and urgent care clinics.

Population and Setting

The population parameters consisted of healthy, nonpregnant females 18 to 65 years of age who presented to the urgent care clinic with symptoms of dysuria. The setting was a suburban urgent care clinic in the southeastern United States.

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Project Design

The project design consisted of the implementation of an evidence-based clinical practice guideline for quality improvement and development of a formal clinic policy in the treatment of uncomplicated urinary tract infections.

Author affiliations: Dianne Treacy Lore DNP, FNP-BC, CPNP-PC, The University of Alabama in Huntsville College of Nursing. **Marlena Seibert Primeau DNP, FNP-BC, NHDP-BC, BSHEC,** The University of Alabama in Huntsville College of Nursing.

Evidenced-Based Procedure

The quality improvement project collected and analyzed data involving patients who presented with urinary symptoms consistent with a diagnosis of an uncomplicated urinary tract infection. The data were collected pre- and postintervention from the electronic medical record. Using the current ACOG evidence-based clinical practice guideline for the treatment of uncomplicated urinary tract infections as the foundation, a quality improvement clinical education presentation was provided to the providers of one urgent care clinic. The intervention was not ordering a urine culture and sensitivity on the selected population.

Evaluation

The outcome of this project was determined after the analysis of the pre- and postintervention data using a sample T-test.

Results

ACOG guideline application resulted in a 30% reduction in the ordering of a C&S in this population with no increase in the rate of follow-up needed in this postintervention group. The anticipated results supported the current ACOG clinical practice guideline and provide a basis for a formal policy in the urgent care setting.

Conclusion and Implications

Projects such as the one discussed here demonstrate that outcomes can be improved by promoting and implementing evidence-based clinical practice guidelines.

Introduction

Bacterial infections such as urinary tract infections (UTIs) negatively affect over 150 million individuals globally each year.[1] A woman's risk of acquiring a UTI is greater than a man's due to their anatomical structure; the urethra of a female is both shorter and closer to the rectum than the male, increasing the risk of colonization of bacteria from the rectum. Other factors that place a female at increased risk for a UTI are sexual interaction, intercourse with a new partner, spermicidal use, poor hygiene, and history of UTIs as a child.[2] The majority of the UTIs diagnosed annually are labeled as uncomplicated.[2,3]

An uncomplicated UTI is defined as an infection in the lower urinary tract among healthy, nonpregnant women with symptoms of burning upon urination, urinary urgency and/or frequency, and without the presence of flank pain, fever, vaginal pain, or discharge. The diagnosis of an uncomplicated UTI is made after a collection of subjective and objective data, including a thorough history of current symptoms, a physical examination, and the presence of leukocytes, blood, and/or nitrates on a urinalysis.[2]

Although characterized as having an "uncomplicated" UTI, many patients are negatively impacted by this condition. In the United States, UTIs constitute more than 10 million healthcare appointments with expenditures estimated to be over $1 billion annually.[4] Approximately 70% of all adult women will acquire a UTI during their lifespan.[4]

Traditional management for an uncomplicated UTI encompasses evaluation of the results through use of a urine culture and sensitivity (C&S). A C&S provides key information such as the bacteria involved and the antibiotic appropriate in the management of an uncomplicated UTI.[5] Conventional treatment of UTIs utilizes C&S testing to ensure that bacteria-to-drug mismatches don't result in incomplete healing and return visits.

Although this has been the traditional standard of care, the American College of Obstetricians and Gynecologists, the Centers for Disease Control and Prevention, and the European Association of Urology now recommend against the use of a C&S at the outset of treatment of uncomplicated UTIs.[2,6,7] Since the bacteria *E coli* accounts for 75% to 95% of uncomplicated UTIs, a C&S does not alter the treatment or improve patient outcomes.[8,9] According to Stapleton,[9] a C&S should only be obtained for the diagnosis of complicated or recurrent UTIs.

Overall, laboratory tests can deliver valuable and lifesaving information for healthcare providers and are helpful in improving patient outcomes. When ordered appropriately, laboratory tests can assist directly in patient care and in the delivery of safe and affordable healthcare; however, when lab tests are ordered unnecessarily, these tests can add to the healthcare cost burden.[10] According to Carroll,[11] the Institute of Medicine reported that in 2013 over $200 billion was spent in America on "unnecessary services" such as superfluous laboratory tests.

The point-of-care testing (POCT) urinalysis, sometimes referred to as urine dip or dipstick, is a quick laboratory test performed onsite to detect substances in the urine sample.

It is a quick and inexpensive technique that is both sensitive (75%) and specific (82%) when searching for leukocytes or nitrates in urine.[2] Per ACOG, the treatment of a symptomatic and uncomplicated UTI with leukocytes, blood, or nitrates noted on a POCT urinalysis does not require a C&S. A POCT urinalysis is a low-

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cost solution to contain healthcare expenses while providing quality patient care.[2]

Methods

Over the past year, there has been increased discussion among providers at a university-affiliated urgent care clinic in North Carolina regarding the advantages and disadvantages of a C&S as part of the protocol for the treatment of uncomplicated UTIs. The debate between providers embodied the pros and cons of both approaches, as well as considerations of patient and provider time costs and ultimately the cost-effectiveness of the laboratory procedure.

A quality improvement project was developed to address this concern. Based on current ACOG clinical guidelines, the project's goal was to ascertain the occurrence of unresolved UTI symptoms if C&S were not initially ordered for patients being treated for uncomplicated UTIs in healthy, adult nonpregnant females 18 to 65 years of age in an urgent care setting.

The urgent care clinic where the investigation took place is fast-paced and diverse, and an institution where patients visit for a myriad of urgent healthcare concerns throughout their lifespan. A substantial number of women within the target population present to this facility with UTI complaints. Based upon peer provider discussions, urine cultures represent a significant portion of the laboratory specimens obtained.

The population chosen for the project were healthy, nonpregnant females, 18 to 65 years of age, who presented to the urgent care setting with burning upon urination, urinary urgency and/or frequency, and possible blood, leukocytes, and nitrates identified in their POCT urinalysis results. However, these patients did not present with flank pain, fever, vaginal irritation, or discharge. The exclusion criteria were males, pregnant females, females with a history of recent UTIs, recent antibiotic use, diabetes, kidney disease, immunosuppression, or females below 18 or above 65 years of age.

Data were collected from electronic medical records (EMRs) retrospectively via chart review for 1 month prior to the intervention. During the preintervention phase, the number of patients treated for an uncomplicated UTI was compared to the number of patients who either returned to the urgent care with unresolved symptoms after initial treatment or were called and needed follow-up for unresolved symptoms postvisit.

Using the current, evidence-based ACOG guidelines for the treatment of uncomplicated UTIs as the foundation, a quality improvement clinical education session was presented to the clinic providers. The intervention advised against the use of C&S laboratory tests in the assessment of uncomplicated UTIs, and showed the evidence supporting this change. With no C&S laboratory tests being ordered for the subject population, postintervention data were collected through chart review for 1 month.

Table 1. QI Project Data Collection Results

	Preintervention	Postintervention
Number of participants	20	20
Mean age	39.35 years	36.85 years
Burning upon urination (%)	13 (65%)	17 (85%)
Urinary urgency	11 (55%)	5 (25%)
Urinary frequency	17 (85%)	14 (70%)
Blood in urine	14 (70%)	17 (85%)
Nitrates in urine	5 (25%)	6 (30%)
Leukocytes in urine	15 (75%)	13 (65%)
Urine culture and sensitivity sent	17 (85%)	11 (55%)
Full resolution of symptoms	12 (60%)	19 (95%)
Postvisit ED follow-up	2 (10%)	1 (5%)
Postvisit PCP visit	4 (20%)	0 (0%)
Postvisit urgent visit	2 (10%)	0 (0%)

Results

A total of 40 women met the inclusion criteria for both pre- and postintervention sampling. Data were collected from 20 preintervention EMRs and 20 postintervention EMRs. The preintervention data showed the average age of the women in this group to be 39.35 years of age. A C&S was sent for 17 (85%) of the women. When called postvisit, eight (40%) did not have full resolution. Two (10%) stated they needed to follow up in the emergency department. Four (20%) followed up with their primary care provider, and two (10%) returned to an urgent care. (See **Table 1**). The postintervention data showed the average age of the women in this group to be 36.85 years of age. A C&S was sent for 11 (55%) of the women. When called postvisit, one (5%) did not have full resolution. One (5%) stated they needed to follow up in the ED, none followed up with their PCP, and none returned to UC. ACOG guideline application resulted in a 30% reduction in the ordering of a C&S in

this population with no increase in the rate of follow-up needed in this postintervention group.

Conclusions

The results of the quality improvement project supported ACOG's clinical guidelines regarding the assessment of uncomplicated UTIs in the nonpregnant, adult female population. The educational session attended by the providers appeared to play a key role in reducing unnecessary C&S studies and increasing provider awareness of ACOG guidelines for current evidence-based practice. These findings also supported the position that quality patient care can be maintained while healthcare costs are reduced for this population in the urgent care setting.

Projects such as the one discussed here improve patient care outcomes by promoting and implementing evidence-based clinical practice guidelines. Ensuring guideline implementation and sustainability involves ongoing open communication and active involvement by all stakeholders of the urgent care team.

Limitations

The project improved patient outcomes and reduced unnecessary lab testing, but did have limitations. The sample size was lower than the projected sample size. There was a reduction in the number of patients who presented to the urgent care during the time of data collection, possibly due to the impact of COVID-19. Replication of this project on a larger or continued scale, or using an experimental study format, would be helpful in confirming these findings. ■

References

1. Flores-Mireles A, Walker J, Caparon M, Hultgren S. Urinary tract infections: epidemiology, mechanisms of infection and treatment options. *Nat Rev Microbiol*. 2015;13(5):269-284.
2. ACOG.org. Treatment of urinary tract infections in nonpregnant women. 2021. Available at: https://www.acog.org/-/media/project/acog/acogorg/clinical/files/practice-bulletin/articles/2008/03/treatment-of-urinary-tract-infections-in-nonpregnant-women.pdf. Accessed February 3, 2021.
3. Poon E, Self L, McLeod S, et al. Uncomplicated urinary tract infections in the emergency department: a review of local practice patterns. *CJEM*, 2017;20(4):572-577.
4. Abou Heidar NF, Degheili JA, Yacoubian AA, Khauli RB. Management of urinary tract infection in women: a practical approach for everyday practice. *Urol Ann*. 2019;11(4):339-346.
5. Mishra B, Srivastava S, Singh K, et al. Symptom-based diagnosis of urinary tract infection in women: are we over-prescribing antibiotics? *Int J Clin Pract*. 2012;66(5):493-498.
6. Uroweb.org. 2021. Available at: https://uroweb.org/wp-content/uploads/EAU-Guidelines-on-Urological-Infections-2018-large-text.pdf. Accessed February, 2021.
7. CDC.gov. 2021. Adult treatment recommendations | community | antibiotic Use | CDC. Available at: https://www.cdc.gov/antibiotic-use/community/for-hcp/outpatient-hcp/adult-treatment-rec.html. Accessed February 3, 2021.
8. Hopkins L, McCroskey D, Reeves G, Tanabe P. Implementing a urinary tract infection clinical practice guideline in an ambulatory urgent care practice. *Nurse Pract*. 2014;39(4):50-54.
9. Stapleton A. Urine culture in uncomplicated UTI: interpretation and significance. *Curr Infect Dis Rep*. 2016;18(5):15.
10. Salinas M, Flores E, López-Garrigós M, Leiva-Salinas C. 2018. Laboratory test inappropriateness: lessons revisited and clarified in seven questions. *J Lab Precis Med*. 2018;3:34-47.
11. Carroll A. The high costs of unnecessary care. *JAMA*. 2017;318(18):1748.

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COL-07436 09/21

INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 1

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

If you would like to submit a case for consideration, please e-mail the relevant materials and presenting information to *editor@jucm.com*.

A 75-Year-Old with Chest Pressure

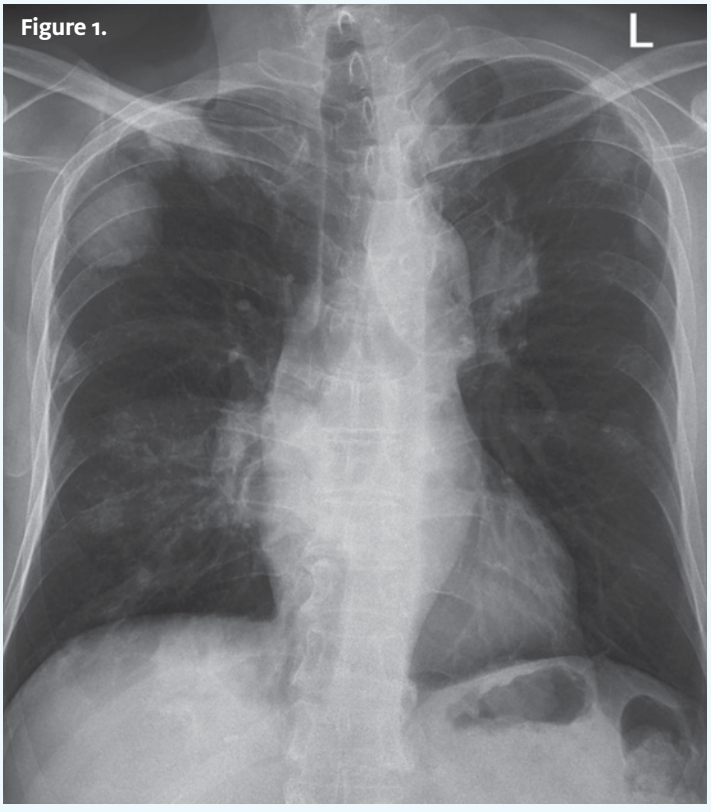


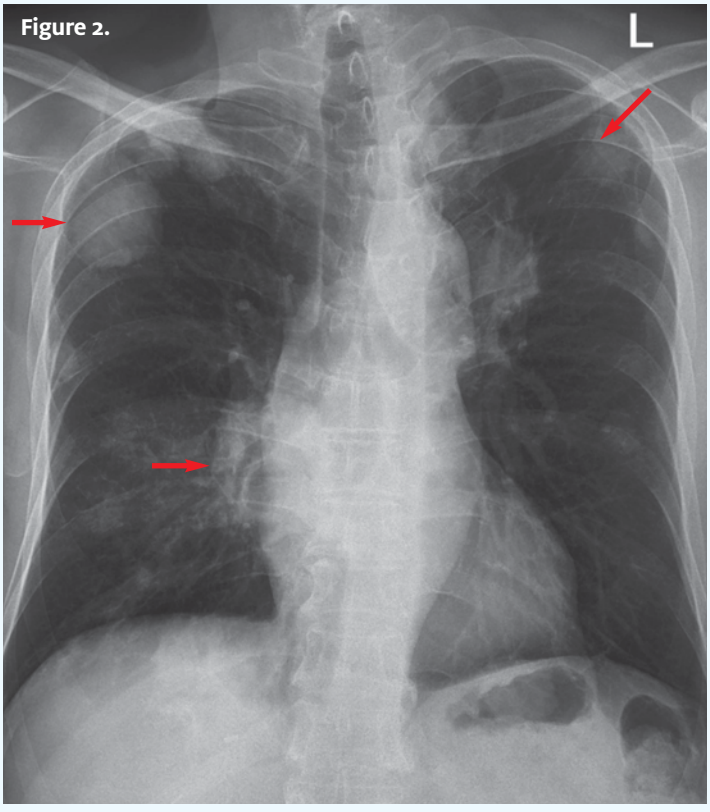
Figure 1.

Case

The patient is a 75-year-old male who presents with a primary complaint of pressure in his chest. He denies chest pain, dizziness, or "anything like a heart attack."

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

THE RESOLUTION



Differential Diagnosis

- Diffuse panbronchiolitis
- Pulmonary metastases
- Septic pulmonary emboli
- Silicosis
- Tuberculosis

Diagnosis

The x-ray shows multiple bilateral, well-circumscribed, rounded masses. The largest appears in the right posterior perihilar region. There are many causes for multiple pulmonary masses, however metastases are the most common.

Learnings/What to Look for

- The priority is to identify the lesion in the lung and distinguish a nodule from a mass
  - A pulmonary nodule is defined as a small (<30 mm), well-circumscribed lesion, completely surrounded by normal lung parenchyma
  - A pulmonary mass is defined as a pulmonary opacification of >30 mm
- Common causes of pulmonary nodules are hamartomas, mucous gland adenoma, histiocytoma, and lipomas. The most common cause of pulmonary mass is malignancy. Other causes of pulmonary masses include autoimmune disease, fungal infections, and tuberculosis.

Pearls for Urgent Care Management

- After ruling out cardiac causes for the patient's symptoms, additional imaging with a CT scan is indicated
- A rapid referral to an oncologist is often frequently warranted

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

A 6-Year-Old Boy with a Lesion on His Ear

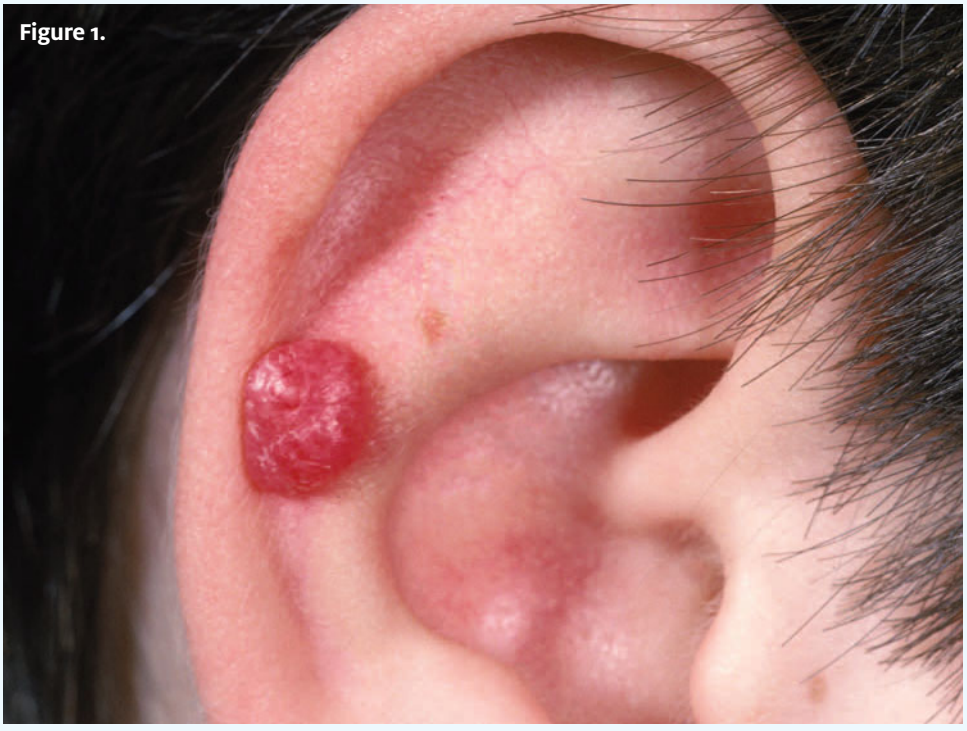


Figure 1.

Case

The patient, a 6-year-old boy, presented to a pediatric urgent care center for a well-child visit. In the exam room, the father pointed out a red lesion on the helical rim of the patient's ear. The papule was smooth and well-defined and didn't seem to bother the boy. The father reports that he and the boy's mother have grown concerned as they've noticed it develop over several months.

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

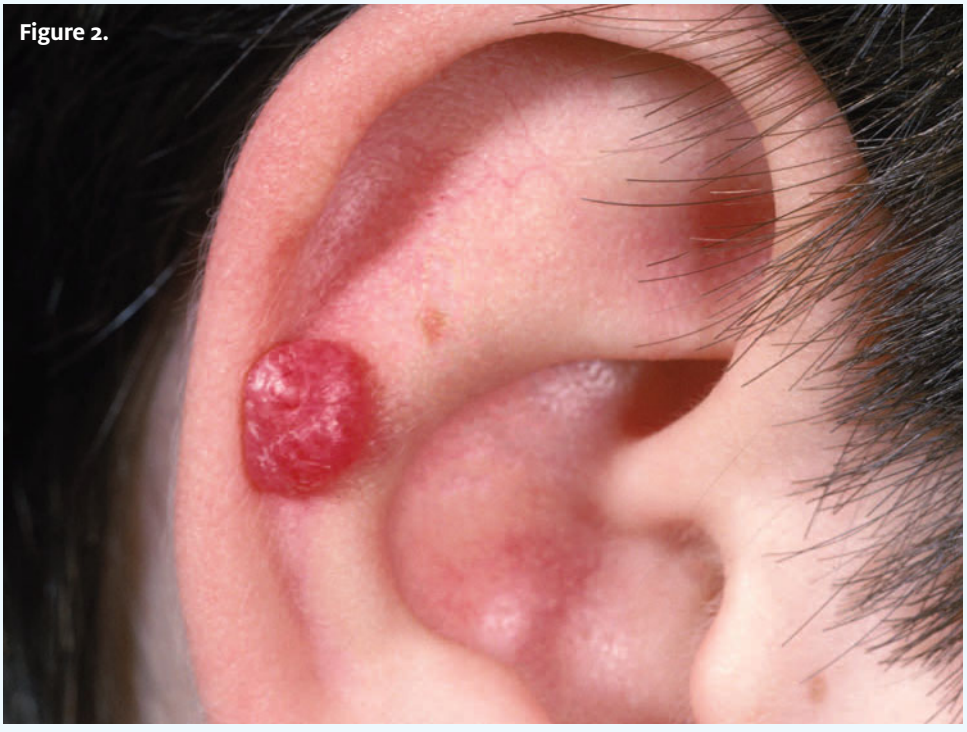


Figure 2.

Differential Diagnosis

- Dermatofibroma
- Lobular capillary hemangioma
- Melanoma
- Spitz nevus

Diagnosis

The lesion shown in the photo was diagnosed as a Spitz nevus. Spitz nevi, also known as spindle and epithelial cell nevi or benign juvenile melanoma, are benign melanocytic nevi that occur most commonly in childhood and adolescence. Rarely, congenital Spitz nevi present at birth.

Learnings/What to Look for

- Spitz nevus lesions are often red, pink, or (less commonly), dark brown, and appear as well-defined, smooth, firm, flat- or dome-shaped nodules and papules often <6 mm in diameter
- The majority of lesions are solitary, but rarely they can be multiple and widespread (eruptive disseminated) or localized (agminated) in one area
- The importance of these lesions lies in their frequent histopathologic confusion with melanoma. Spitz nevi represent the benign diagnosis within a spectrum, which extends to contain increasingly atypical features in atypical Spitz tumors and Spitz melanomas
- Lesions can develop slowly or appear quite rapidly. Without excision, lesions may remain stable for years, evolve into compound nevi, flatten over time, or involute spontaneously

Pearls for Urgent Care Management

- Benign lesions do not require treatment but should be monitored for changes. Measuring and photographing the lesion is useful in this regard
- Referral to dermatology is recommended for nevi that exhibit concerning features or new changes

Acknowledgment: *Images and case presented by VisualDx (www.VisualDx.com/JUCM).*

CLINICAL CHALLENGE: CASE 3

A 65-Year-Old Man with Shortness of Breath and a History of Heart Failure

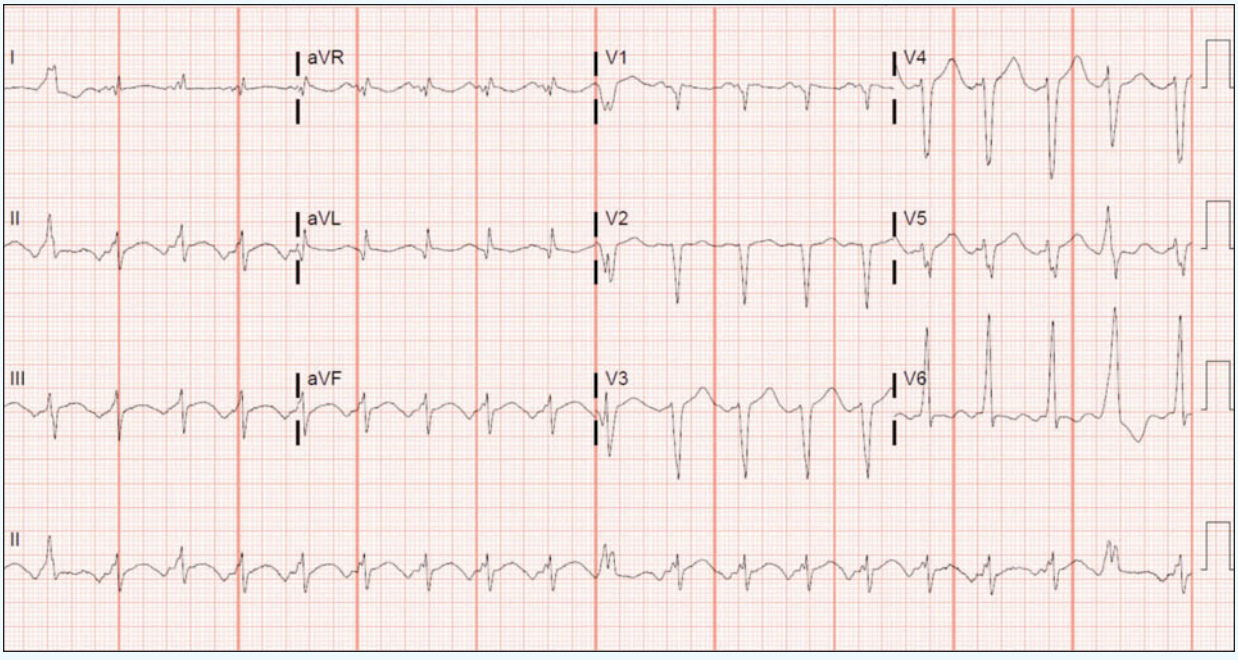


Figure 1.

A 65-year-old male with a history of heart failure presents to an urgent care center with shortness of breath of 2 days duration. He denies chest pain, nausea, or vomiting. He reports that he ran out of his medications about a week ago.

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

(Case presented by Catherine Reynolds, MD, McGovern Medical School, Department of Emergency Medicine, The University of Texas Health Science Center of Houston.)

THE RESOLUTION

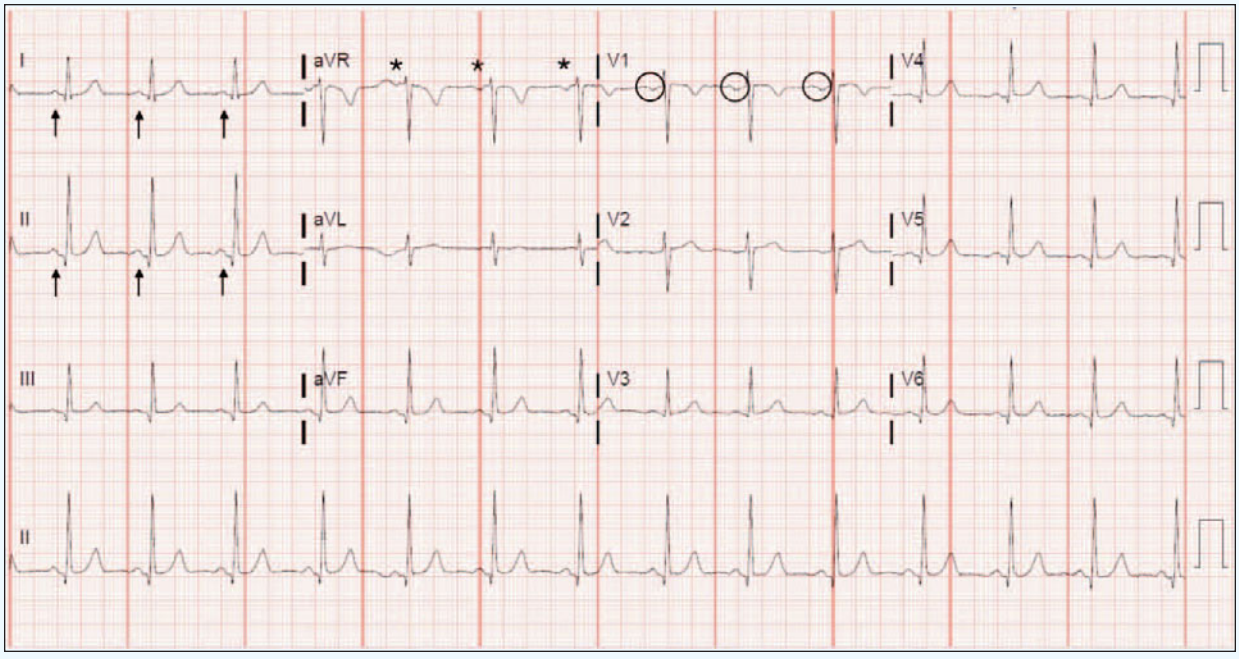


Figure 2. An example of a sinus rhythm with a normal P wave axis—upright in leads I and II (↑), inverted in aVR (*), and biphasic in V1 (circle).

Differential Diagnosis

- Myocardial ischemia
- Myocardial infarction
- Nonspecific intraventricular conduction delay
- Atrial tachycardia
- Hyperkalemia

Diagnosis

The correct diagnosis is atrial tachycardia with abnormal P wave axis. The ECG illustrates an atrial tachycardia with a rate around 115 beats per minute, with three PVCs.

Learnings/What to Look for

Atrial tachycardia is an arrhythmia that occurs when the electrical signal in the heart originates from an atrial site other than the sinoatrial node. An ectopic atrial focus can be recognized by identifying the P wave axis.

The P wave represents atrial depolarization. Sinus rhythm is present when the sinoatrial node generates a signal that depolarizes the atria.

The sinoatrial node is a complex cluster of cells that exists at the junction of the superior vena cava and the right atrium and is the dominant pacemaker under normal circumstances. When the sinoatrial node generates the depolarizing impulse, the P wave will have an axis between 0° and +75°—upright in leads I and II, inverted in aVR, and frequently biphasic in V1. Depolarization of the right followed by left atria fuse together to form the typical monophasic P wave seen in leads I and II (**Figure 2**).

Derangements of the P wave axis are caused by an impulse originating from an ectopic atrial focus instead of the sinoatrial node. In our case, the P wave is inverted in the inferior leads and upright in aVR, indicating impulse generation from a low atrial site (**Figure 3**).

The inverted P waves on our patient's ECG merge with the T waves to give the appearance of ischemic T wave inversions; however, a holistic approach to the ECG will help to reveal the presence of P waves consistent with atrial tachycardia. This rhythm is not inherently dangerous, as it is very similar to a sinus tachycardia. It is important to note, however, that as with most cases of tachycardia, atrial tachycardia may serve as a compensatory mechanism in patients with hypo/hypervolemia, sepsis, or many other conditions. Atrial tachycardia usually results from enhanced automaticity, the accelerated generation of an action potential by drugs, various forms of cardiac disease, electrolyte disturbances, or alterations of autonomic nervous system tone.[1–3]

THE RESOLUTION

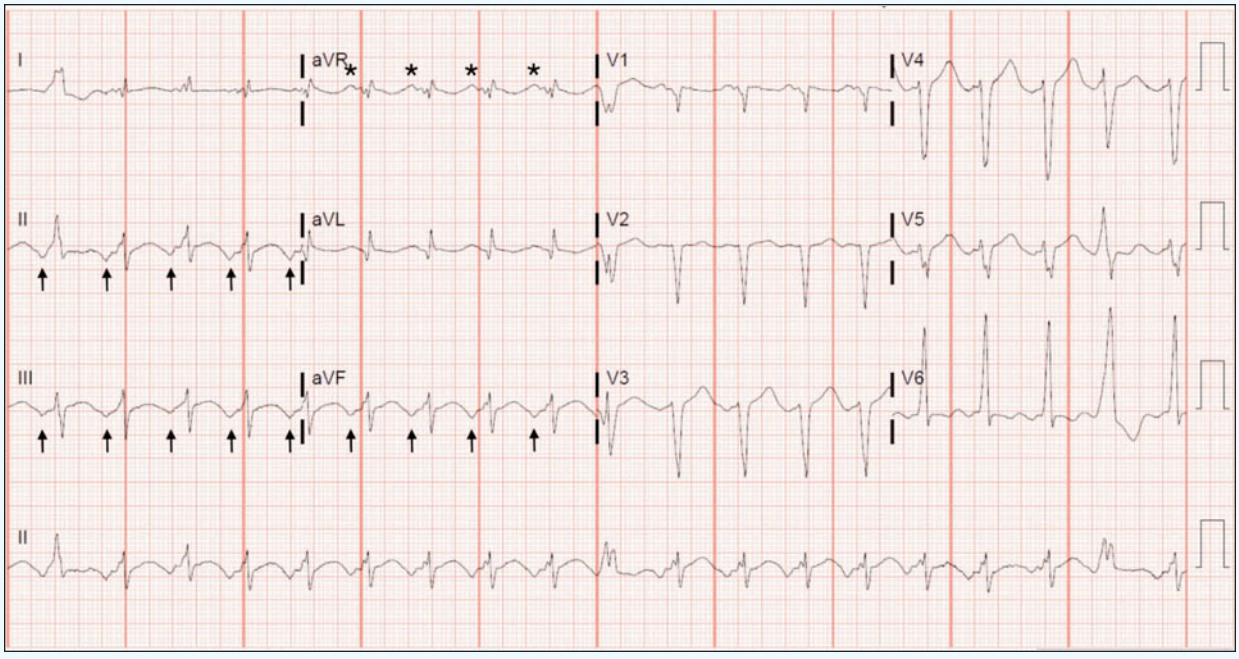


Figure 3. Inverted P waves (↑) in the inferior leads and upright P waves in aVR (*).

Pearls for Urgent Care Management

- An abnormal P wave axis is the key to recognizing that a rhythm is not originating from the sinus node, but from an ectopic atrial focus
- Stable atrial tachycardia is not usually dangerous, but transfer may be considered in symptomatic patients or when the tachycardia is excessive
- Consider compensatory etiologies and treat the underlying condition if it exists; otherwise, outpatient referral to cardiology is sufficient

References

1. Mattu A, Tabas J, Brady W. *Electrocardiography in Emergency, Acute, and Critical Care*. 2nd ed. Dallas, TX: The American College of Emergency Physicians; 2019.
2. Butta C, Tuttolomondo A, Giarrusso L, Pinto A. Electrocardiographic diagnosis of atrial tachycardia: classification, P-wave morphology, and differential diagnosis with other supraventricular tachycardias. *Ann Noninvasive Electrocardiol*. 2015;20(4):314-327.
3. Poutiainen AM, Koistinen MJ, Airaksinen KE, et al. Prevalence and natural course of ectopic atrial tachycardia. *Eur Heart J*. 1999;20(9):694-700.

ECG STAMPEDE

Billing for Midlevels: Your Questions Answered

MONTE SANDLER

One of the biggest challenges for urgent care practices is staffing. Midlevels are a great solution. As states pass laws giving midlevels more autonomy to compensate for physician shortages, however, there is some confusion on how to bill for these providers' services. I will attempt to answer some of your billing questions.

- *Do I need to credential my midlevels?* Yes and no. This is dependent on your contract. For some group contracts, any new provider will be viewed the same as the rest of the group. You will just need to notify the plan. Some contracts, however, will require full credentialing for all providers.
- *I know government payers (ie, Medicare, Medicaid, and TRICARE) have to be billed under the rendering provider. What about nongovernment payers?* Correct. There is no flexibility for government payers. All midlevels will need to be credentialed. For nongovernment payers, claims need to be submitted under the rendering provider when the contract requires it. Risks of violating your contracts include increased scrutiny of claims, recoup of previous payments, and even the loss of your contract.
- *What if they are temporary and will only work as needed to cover absences?* Unlike physicians, there is no fee-for-time compensation arrangement (formerly called locum tenens) for midlevels. Even though the midlevel is temporary, practices need to credential the same as they would for a permanent hire.
- *What if the physician signs off on all the charts?* Signing the chart does not matter from a billing perspective. It fulfills requirements of your collaborative practice agreement. These requirements will vary by state. Billing requirements are dictated by federal guidelines and payer policies.

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

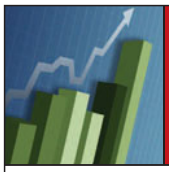
"These challenges arise only when contracts require full credentialing. This is a good reason to let a credentialing professional handle your contracting. That will help ensure you get the best plans possible for your practice."

- *What about "incident-to" guidelines?* If requirements are met and the payer allows it, midlevels may report their services as incidental to a physician's treatment plan. Unfortunately, this is extremely rare in the urgent care setting where patients present for new or worsening conditions.
- *What are the requirements for "incident-to"?* Services must be an integral, although incidental, part of the physician's professional service. The billing physician must provide direct supervision. For a service to be incidental, it must be a part of a physician's treatment plan. This eliminates new patients, existing patients with new conditions, and patients who are not meeting treatment goals. If the midlevel makes an adjustment to the treatment plan (eg, a change in medication), it is no longer "incident-to."
- *Our standard protocol is for the midlevel to share medical decision-making with the physician. Can't I bill under the physician?* Again, this is dependent on your contract. If full credentialing is required, the provider that performs the face-to-face service is the billing provider.
- *What if we both see the patient?* A "shared" visit is when the level of service is determined by documentation from both the physician and a midlevel provider for a date of service. The physician and midlevel each personally perform a portion of the visit. The encounter could then be billed under the physician. In the office setting, the incident-to guidelines described previously must be met, so this is also extremely rare.
- *What if we code the level based on time?* That may be a good solution. If both the midlevel and the physician see the

patient, you can add each provider's time together and level the visit based on the total. You can only count one provider per minute if both the midlevel and the physician are seeing the patient at the same time.

- *What are the other requirements to bill based on time?* The total time includes both face-to-face and non–face-to-face time on the date of service. You can count time when the patient is not in the office (eg, reviewing lab results or charting). You can't count time spent by clinical staff (eg, nurses or medical assistants). You also can't count the time spent performing procedures, including diagnostic testing. As explained previously, you can include time spent by midlevels.
- *Are the requirements for nurse practitioners and physician associates (formerly physician assistants) the same?* No, they are not always the same. Some plans may require full credentialing of nurse practitioners, but the physician associate can bill under their supervising physician and vice versa.
- *So, what do I do with the claims while the midlevel is being credentialed?* You have two options. Of course, they both have pros and cons. The first is to bill the services out-of-network. This may result in a higher bill for the patient. The second is to hold the claims until the provider's credentialing is effective. However, not all plans will allow retroactive effective dates so you may see timely filing denials.
- *What if the midlevel is documenting for me?* Services would be reported by the rendering provider when a midlevel is working as a scribe. The role of a medical scribe is to chart encounters in real time for the provider.
- *How do I document when a midlevel is a scribe?* When a midlevel provider operates as a scribe, they would not have their own schedule as they are not working independently and are not performing any portion of the service. The scribe would be documenting as the rendering provider. The midlevel's signature is not required on the note. Instead, they would add a note similar to "Jane Doe scribing for Dr. Smith for this encounter on 03/24/2021." The documentation should clearly identify who performed the service and be signed and dated by the rendering provider with a statement that they agree the documentation is accurate and complete.

Take heart—it's not all doom and gloom. These challenges arise only when contracts require full credentialing. This is a good reason to let a credentialing professional handle your contracting. That will help ensure you get the best plans possible for your practice. ■



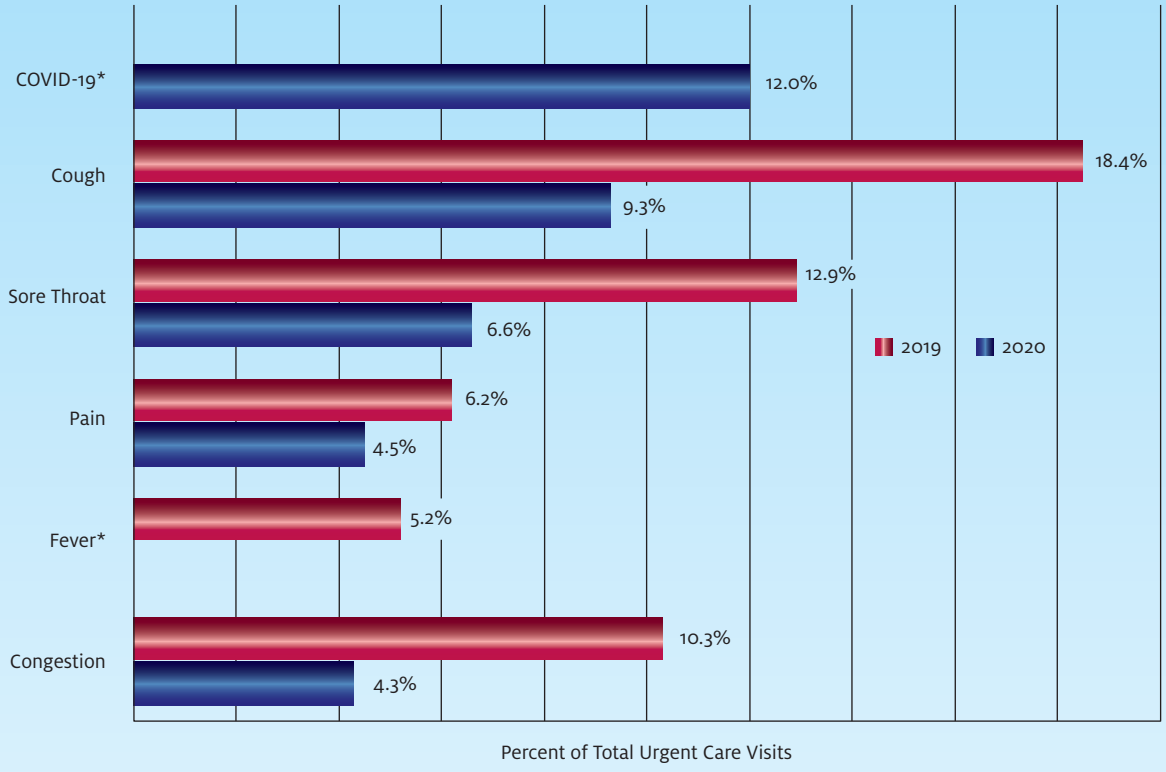
DEVELOPING DATA

Will Urgent Care Visits Return to 'Normal' as the Pandemic Turns Endemic?

In spite of the fact that urgent care was overlooked as an essential partner in the fight against COVID-19 in the early days of the pandemic, the virus had a major impact on the complaints that drove patients to visit an urgent care center. In fact, according to *JUCM* research, most of 2019's top 5 chief complaints fell by at least half as a proportion of all urgent care visits. COVID-19, which was essentially a nonentity in 2019 in the U.S. urgent care marketplace, became the most-cited chief complaint in 2020.

This begs the question: What will happen if COVID-19 transitions from a pandemic to an endemic disease, as expected? The comparison between 2019 and 2020, below, might offer some helpful historical context. ■

PATIENTS' CHIEF COMPLAINTS WHEN PRESENTING TO URGENT CARE 2019 VS 2020



*COVID-19 was not mentioned as a chief complaint in 2019

**Fever dropped to the sixth most-cited chief complaint (3.1% of visits) in 2020

Data source: *JUCM* 2019 *Urgent Care Chart Survey* (reflecting 8.7 million blinded patient visits to 1,000 urgent care centers) and *JUCM 2020 Urgent Care Chart Survey* (reflecting 10.6 million blinded patient visits to 1,000 urgent care centers).

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AN EXPERITY EVENT

Save the Date

March 2-3, 2022 | Nashville, TN

Learn **what's new** and
what's next in urgent care

Kick-off 2022 with the largest urgent care conference of the year, hosted by Experity.

Prepare for the future and learn more ways to optimize your urgent care. Scan the QR code to learn more and register today or visit ***experityhealth.com/events/urgent-care-connect/***

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