JUCM®

THE JOURNAL OF URGENT CARE MEDICINE®

MAY 2026
VOLUME 20, NUMBER 8

URGENT CARE ASSOCIATION

COLLEGE OF URGENT CARE MEDICINE

URGENT CARE COLLEGE OF PHYSICIANS

www.jucm.com | The Official Publication of the UCA, CUCM, and UCCOP | CELEBRATING 20 YEARS

ALSO IN THIS ISSUE

CASE REPORT cme

Worst-Case Scenario: A Headache With Red Flags

Abbott

SAY AH!

SIMPLIFIED STREP A TESTING

ID NOW™ STREP A 2 TEST makes testing easy. Collect a single throat swab, test and provide treatment, all during the patient encounter.

- Actionable, reliable, molecular **results in 2–6 minutes**[1]
- 90% fewer false negatives than antigen tests*[2]
- No culture confirmation needed

For *in vitro* Diagnostic Use Only

ID NOW™ RESPIRATORY ASSAY MENU

COVID-19	Influenza A & B	Strep A	RSV
6–12 mins	5–13 mins[3]	2–6 mins[1]	≤ 13 mins

CONTACT YOUR DISTRIBUTOR REPRESENTATIVE TODAY OR VISIT **GLOBALPOINTOFCARE.ABBOTT**

*Test sensitivity performance comparison of antigen tests and the ID NOW™ Strep A 2

1. ID NOW™ Strep A 2 clinical trial data, held on file. **2.** Cohen JF, et al. Rapid antigen detection test for group A streptococcus in children with pharyngitis (Review). Cochrane Database Syst Rev. 2016 Jul 4;7(7):CD010502. **3.** ID NOW™ Influenza A & B 2 clinical trial data, held on file.

RDx-25000955-01 04/25

JUCM®

The Official Publication of the UCA, CUCM, and UCCOP

May 2026 | VOLUME 20, NUMBER 8

CASE REPORT

FOLLOW *JUCM* ON SOCIAL MEDIA

LinkedIn

JUCM: Journal of Urgent Care Medicine

X

@TheJUCM

DEPARTMENTS

TO SUBMIT AN ARTICLE:

JUCM utilizes the content management platform Scholastica for article submissions and peer review. Please visit our website for instructions at http://www.jucm.com/submit-an-article

At Odds: Do Clinical Practice Metrics Incentivize Bad Medicine?

Justin R. Murphy, MMSc, PA-C

We live in a world that revolves around data. If you have been in the medical field for a decade or longer, you have observed the trend toward increasingly data-driven medical practice. If you have been practicing more recently, you have lived it. Metrics continually shape our practice patterns and influence our care, and their utilization will only increase. Currently, analytics and artificial intelligence tools cannot directly process human cognition and emotion. Therefore, data is required.

The Conflict

Although most data-driven solutions are promised to make our lives easier, at times it feels like various clinical metrics are pulling us in different directions. Some data-backed incentives may even seem to directly oppose our moral or ethical obligations to the patient. Recently, a prime example of apparently conflicting clinical incentives has been on my mind. As urgent care clinicians, we are generally tasked with achieving high patient satisfaction scores while simultaneously implementing good antibiotic stewardship practices. We try to key in on patient wishes, and good antibiotic stewardship sometimes seems to run in opposition. I occasionally struggle with this tension and reflect on how challenging it is to consistently achieve both goals.

We all know how crucial it is that we continue to keep patients satisfied with their care and keep them returning to our clinics. However, let us remember the ever-increasing dangers around antibiotic resistance. Deaths attributable to antimicrobial resistance are estimated to reach 1.91 million globally by the year 2050.[1] Although there is potential these projections may change for the better, these numbers are cause for alarm.

Justin R. Murphy, MMSc, PA-C, is a student at High Point University in the Doctor of Medical Science Program.

The apparent clash between patient satisfaction and responsible antibiotic prescribing really came to the forefront for me over the past year when our urgent care group began openly publishing provider antibiotic prescribing data. Patient satisfaction scores have been broadcast in our group for years. But now seeing the antibiotic prescribing data, distributed to all, truly brought this conflict to light for me. The expectation to deliver on sound antibiotic stewardship practices while simultaneously pleasing our antibiotic-seeking viral patients was now plain as day. Can we have our cake and eat it too?

The Game-Changer

Education and reframing really helped to change my perspective on this. W. Kevin Broyles, MD, a veteran in our urgent care group, served as lead physician in the ambulatory antibiotic stewardship committee of our healthcare organization for many years. He was responsible for publishing and distributing our antibiotic stewardship data report. Along with that, he provided some pearls for our group that I believe every urgent care clinician should hear at least once. He promised to teach us how to frame the conversation around viral respiratory infections with patients in a positive way, somehow explaining the lack of necessity of antibiotics while still achieving high patient satisfaction. I was intrigued.

Dr. Broyles' teachings drew from the publication Dialogue Around Respiratory Illness Treatment (DART)[2] out of the University of Washington Department of Pediatrics. The core tenet of this framework includes a 4-part formula to assist in supporting both antibiotic stewardship and patient satisfaction. Step 1 is to review physical exam findings with the patient or parent out loud. The second step is to deliver a clear diagnosis, such as "viral pharyngitis." The third step is to provide a 2-part negative then positive treatment recommendation. As an example, "I have bad news and good news. The bad news

is that you have a virus, and antibiotics will not help. The good news is that there are some things that we can do to get you feeling better." The order of the delivery matters, as studies show a decrease in patient satisfaction when the recommendations end with bad news. The last step in the DART process is to include a contingency plan for follow-up.

The Evidence

Dr. Broyles shared his antibiotic prescribing rates and patient experience scores before and after he implemented this technique, and the numbers speak for themselves. He analyzed his own antibiotic prescribing patterns during a 4-month period in respiratory illness season before using the DART approach, and then he compared it to the same 4-month period the following year, in which he implemented the DART approach.[3] In the pre-intervention period, he saw 1,937 patients and noted a 41% antibiotic prescribing rate. In the intervention period, he saw 1,570 patients and noted a 25% antibiotic prescribing rate. Remarkably, his patient satisfaction scores were exactly the same during both periods. All this was accomplished by tactfully educating his patients.

Positive results have also been replicated in the literature. In a clinical trial by Kronman et al.[4], clinicians in a network of pediatric outpatient practices received training on the DART method. Overall antibiotic prescribing rates for acute respiratory tract infections were then compared to a baseline control period. The authors found a significant reduction in the antibiotic prescribing rate during the post-intervention period, and they call for broader dissemination of the DART training to clinicians based on their findings.

After learning about the DART approach, I have followed this formula on nearly every patient that I have seen with viral upper respiratory symptoms over the past year. While I don't have any objective data from my own practice, my experience is that this approach has been overwhelmingly well-received by my patients. Since implementing this method, I have begun to enjoy a sense of fulfillment that comes from providing evidence-based care while simultaneously maintaining high patient satisfaction.

The Big Picture

What is it that patients really want when they come in to see us in clinic? Patients are seeking safe, timely, and effective treatment, human connection and caring from staff, and a healing and comfortable care environment.[5] Our care should focus on consistently delivering across these three pillars. We all intend to do no harm, and focusing on these priority values can guide our efforts towards that aim, even in an increasingly complex, data-driven care environment with competing incentives.

"Since implementing this method, I have begun to enjoy a sense of fulfillment that comes from providing evidence-based care while simultaneously maintaining high patient satisfaction."

Conclusion

Through the process of implementing intentional patient-centered antibiotic stewardship, I have experienced greater harmony among aspects of clinical practice, including quality metrics, that I used to consider incongruent. You really can have the best of both worlds. ■

References

1. Naghavi M, Karamouzian M, Chitsaz A, et al; GBD 2021 Antimicrobial Resistance Collaborators. Global burden of bacterial antimicrobial resistance 1990–2021. *Lancet*. 2024;404(10459):1199-1226. doi:10.1016/S0140-6736(24)01867-1
2. Mangione-Smith R. *Dialogue Around Respiratory Illness Treatment: Optimizing Communication With Parents*. US Department of Health; 2025. Accessed September 23, 2025. https://health.gov/sites/oash/files/2025-01/mangione-smith-91317_0.pdf
3. Broyles WK. *Ambulatory Antimicrobial Stewardship Lecture*. Video 4. Presented for Wellstar Health System; August 2024
4. Kronman MP, Gerber JS, Grundmeier RW, et al. Reducing antibiotic prescribing in primary care for respiratory illness. *Pediatrics*. 2020;146(3):e20200038. doi:10.1542/peds.2020-0038
5. Adams C, Walpola R, Iqbal MP, Schembri A, Harrison R. The three pillars of patient experience: Identifying key drivers of patient experience to improve quality in healthcare. *BMC Health Serv Res*. 2024;24(1):25. doi:10.1186/s12913-024-10342-4

JUCM®

EDITOR-IN-CHIEF
Lindsey E. Fish, MD, FCUCM
editor@jucm.com

MANAGING EDITOR
Julie Miller
jmiller@jucm.com

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

SENIOR EDITOR, CLINICAL
Michael B. Weinstock, MD

SENIOR EDITORS, RESEARCH
Albert Botchway, PhD

EDITOR, PEDIATRICS
Brittany Wippel, MD

EDITOR, IMAGES
Amy Quinones, FNP-BC

EDITOR, ECG IMAGES
Benjamin Cooper, MD, MEd, FACEP

CONTRIBUTING EDITOR, ABSTRACTS
Ivan Koay, MBChB, MRCS, FCUCM, FRNZCUC, MD

SENIOR ART DIRECTOR
Tom DePrenda
tdeprenda@jucm.com

BRAVEHEART PUBLISHING

11 E Sundial Circle, PO Box 5156, Carefree, AZ 85377

PUBLISHER AND ADVERTISING SALES
Stuart Williams
swilliams@jucm.com • (480) 245-6400

RECRUITMENT ADVERTISING
Payton Wertz, Account Executive, MedGeo
payton.wertz@medgeoventures.com • (303) 615-7167

Mission Statement
JUCM The Journal of Urgent Care Medicine (ISSN 19380011) supports the evolution of urgent care medicine by creating content that addresses both the clinical practice of urgent care medicine and the practice management challenges of keeping pace with an ever-changing healthcare marketplace. As the Official Publication of the Urgent Care Association, the College of Urgent Care Medicine, and the Urgent Care College of Physicians, *JUCM* seeks to provide a forum for the exchange of ideas regarding the clinical and business best-practices for running an urgent care center.

Publication Ethics and Standards
JUCM adheres to industry standards for academic medical journals regarding ethical behavior on the part of authors, editors, reviewers, and staff. Authors should review and understand these guidelines to avoid misconduct in manuscript preparation and submission. The following definitions are provided to guide individuals in adhering to these declarations.

Study Design and Ethics of Research Involving Human Subjects
Research must be conducted to appropriately address the research question while strictly adhering to ethical standards for investigations involving human subjects. *JUCM* affirms the standards for research ethics outlined by the World Medical Association (WMA) in the Declaration of Helsinki, 1964 and its subsequent amendments (last updated 2018). Prospective authors are encouraged to review the Declaration prior to undertaking research, with consideration for conducting appropriate informed consent and whether intended subjects are considered a vulnerable population. Submissions to *JUCM* must comply with the principles of the Declaration (www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects). Research involving human subjects must comply with the respective Institutional Review Board (IRB) standards. Use of an independent IRB is acceptable for authors within an organization without an IRB. To determine if planned investigations fall within the definition of "human subjects research," consult the National Institutes of Health (NIH) decision tool for clarification: https://grants.nih.gov/policy/ humansubjects/hs-decision.htm. Manuscripts describing research involving human subjects must include a statement of approval or exemption for the study from an appropriate IRB or other research ethics committee. *JUCM* conforms to standards for research misconduct laid forth by the Office of Research Integrity (ORI) within the U.S. Department of Health and Human Services (HHS). The ORI specifies the following as instances of misconduct in proposing, performing, or reviewing research, or in reporting research results with the definitions cited on its website "Research Misconduct" accessed June 29, 2020, https://ori.hhsgov/definition-misconduct
(a) Fabrication is making up data or results and recording or reporting them.
(b) Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
(c) Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
(d) Research misconduct does not include honest error or differences of opinion.

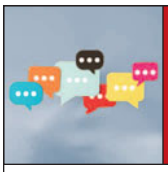
Editorial Decision-Making
JUCM aims to publish original manuscripts relevant to urgent care practice. Decisions regarding publication are made by multilevel editorial review with consideration for clarity, originality, and audience value. Publication decisions must subsequently be corroborated through the process of peer review. Authors may appeal rejections by resubmitting a revised manuscript with a detailed description of the changes and their grounds for appealing. In the event of publication of a manuscript where errors are subsequently identified, *JUCM* will promptly issue a written correction as appropriate. Concerns regarding errors can be addressed to editor@jucm.com.

Disclaimer
JUCM The Journal of Urgent Care Medicine (JUCM) makes every effort to select authors who are knowledgeable in their fields. However, JUCM does not warrant the expertise of any author in a particular field, nor is it responsible for any statements by such authors. The opinions expressed in the articles and columns are those of the authors, do not imply endorsement of advertised products, and do not necessarily reflect the opinions or recommendations of Braveheart Publishing or the editors and staff of JUCM. Any procedures, medications, or other courses of diagnosis or treatment discussed or suggested by authors should not be used by clinicians without evaluation of their patients' conditions and possible contraindications or dangers in use, review of any applicable manufacturer's product information, and comparison with the recommendations of other authorities.

Advertising Policy
Advertising must be easily distinguishable from editorial content, relevant to our audience, and come from a verifiable and reputable source. The Publisher reserves the right to reject any advertising that is not in keeping with the publication's standards. Advertisers and advertising agencies recognize, accept, and assume liability for all content (including text, representations, illustrations, opinions, and facts) of advertisements printed, and assume responsibility for any claims made against the Publisher arising from or related to such advertisements. In the event that legal action or a claim is made against the Publisher arising from or related to such advertisements, advertiser and advertising agency agree to fully defend, indemnify, and hold harmless the Publisher and to pay any judgment, expenses, and legal fees incurred by the Publisher as a result of said legal action or claim.

Address Changes
JUCM printed edition is published monthly except for August for $95.00 by Braveheart Group LLC, 11 E Sundial Circle, PO Box 5156, Carefree, AZ 85377. POSTMASTER: Send address changes to Braveheart Group
PO Box 5156
Carefree, AZ 85377

Email: address.change@ jucm.com



URGENT INTERACTIONS

"The patient doesn't read the textbook. Listen to their story and put the pieces together, even if it isn't a 'classic' textbook presentation."

— Lindsey E. Fish, MD, FCUCM
JUCM Editor in Chief

"Your chart is a story that should have a well-told beginning, middle, and end. The diagnosis should be supported by the data you have gathered during the encounter."

— Michael Weinstock, MD
JUCM Senior Clinical Editor

"Be aware of mimics. Pediatric heart failure is a great mimic, and 49% will go undiagnosed on their first presentation. Symptoms often mimic a simple upper respiratory infection, and while most cases will be a straightforward infection, it is important we remain diligent in looking for that needle in a haystack."

— Brittany Wippel, MD
JUCM Pediatrics Editor

ICYMI

Last month, many industry leaders shared their thoughts on the last 20 years of urgent care's evolution to help us celebrate *JUCM's* 20th anniversary. If you missed it, you can access the full issue from the archives.

Call for Manuscripts

JUCM accepts submissions on most topics related to urgent care medicine. Following are a few examples of the types of topics that would be of interest to the *JUCM* audience. If you have a question, please contact us at editor@jucm.com. To submit an article for consideration, access our author guidelines at https://www.jucm.com/author-instructions.

- How to increase clinically appropriate, timely use of ECGs
- Treatment approaches to anterior and posterior nose bleeds
- Distinguishing morbilliform and other measles-like skin rashes
- Who has clinical oversight when AI takes the lead?

Have a comment? Interested in sharing your perspective on a topic that appeared in *JUCM*? Not all letters will be published. Letters may be edited for length and clarity.
Send your letters to: editor@jucm.com

Unified. AI-Driven. Patient-Centered.

OPTIMIZE URGENT CARE REVENUE

Urgent care billing is fast-moving, high-volume, and unforgiving of errors. Have your claims, follow-ups, and payer activity managed, assisted by AI, to keep revenue moving quickly and predictably.

- Achieve faster reimbursements and improve cash flow
- Increase clean-claim rates and reduce denials
- Reduce billing headaches and avoid month-end surprises
- Surface performance issues by payer group, provider, procedure code, and more with real-time dashboards and automated alerts

97%
NET COLLECTION RATE

<20%
A/R OVER 120 DAYS

<30
DAYS DSO

See More Patients. Deliver Better Care. Optimize Revenue.

EXPLORE RCM

EXPERITY®
ExperityHealth.com | 815.544.7480

From Momentum to Action

Steve Sellars

May is a time to reflect, reset, and carry forward the momentum we've built over the first part of the year. Coming out of our 2026 Urgent Care Convention in Chicago, that momentum feels real and shared by all Urgent Care stakeholders. Over the past several months, we've talked about advocacy, about proving our value, and about the importance of showing up for one another as an industry. The Convention brought all of that into focus. It was a reminder that Urgent Care is not just a collection of centers, but a connected community working toward a common purpose.

I want to start by saying thank you. Thank you to the operators, leaders, and clinicians who showed up engaged, bringing real-world perspective to every conversation. Thank you to our speakers who challenged our thinking, our sponsors and partners who continue to invest in this field, and the Urgent Care Association (UCA) team for delivering a Convention that reflected the strength of this industry.

I also want to recognize and thank Gerry Cvitanovich, MD, for his leadership and service as our outgoing Board President. His guidance helped strengthen UCA's role as a unified voice for the field. At the same time, I welcome Cassandra Donnelly, DO, as our new Board President, along with our 2026 – 2027 Board of Directors. Their leadership, supported by our many volunteers, will continue shaping the direction of our association and our field.

What stood out most in Chicago was the level of engagement. Conversations were candid, practical, and forward-looking. Whether discussing policy and reimbursement, workforce challenges, payer strategies, employer relationships, or the impact of AI and automation, one thing was consistent: no one is solving these challenges alone.

In an increasingly complex and competitive healthcare environment, this alignment matters. Fragmentation is a risk. Alignment is an advantage. What we saw in Chicago was alignment taking shape. A shared understanding of where we need to go, recognition that Urgent Care plays a critical role in access, and growing confidence in the power of our collective voice.

But momentum requires continued engagement. This is where I want to be direct. The future of Urgent Care will not be shaped by observation; it will be shaped by participation.

Over the past year, many leaders have stepped forward to serve on the Board, participate on committees, and contributed to our advocacy efforts. That level of involvement is making a difference, but we need more. More operators becoming members. More leaders getting involved. More voices contributing to data, insight, and perspective. Because when more of us participate, we are more credible with policymakers, more effective with payers, better positioned with employers, and stronger in our communities.

This is not just about supporting UCA. It is about strengthening your organization and your market. Engagement at the national level helps shape the policies that affect your local operations and connects you with peers navigating the same challenges.

If you were in Chicago, I encourage you to build on that momentum. If you were not there, now is the time to raise your hand and join us. Become a member. Get involved. Your participation matters.

As we look to the remainder of 2026, our priorities remain clear: advancing advocacy with a unified voice, proving the value of Urgent Care through data and outcomes, and deepening engagement across our membership.

The Convention was an important moment, but it was not the finish line. It was a starting point for what comes next. I look forward to continuing this work with you in the months ahead. ■

Steve Sellars is Chief Executive Officer of the Urgent Care Association.

CONTINUING MEDICAL EDUCATION

Release Date: May 1, 2026
Expiration Date: April 30, 2028

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

Learning Objectives
Upon completion of this educational activity, the learner will be able to:
1. Provide best practice recommendations for the diagnosis and treatment of common conditions seen in urgent care
2. Review clinical guidelines wherever applicable and discuss their relevance and utility in the urgent care setting
3. Provide unbiased, expert advice regarding the management and operational success of urgent care practices
4. Support content and recommendations with evidence and literature references rather than personal opinion

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

MASTER CLINICIANS
THE ART OF MEDICINE

Credit Designation
Master Clinicians, LLC designates this journal-based activity for a maximum of *3 AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Faculty Disclosure
Master Clinicians, LLC has assessed all reported relationships with ineligible companies disclosed by faculty, speakers, authors, editors, and any other individuals who were in a position to control the content of this CME activity. For this activity, these individuals are **Lindsey E. Fish, MD, FCUCM; Michael B. Weinstock, MD; and Alan A. Ayers, MBA, MAcc**. Unless noted below, none of those in a position to control the content of this educational activity (planners, faculty, authors, etc.) have relevant financial relationship(s) with ineligible companies whose primary business is producing, marketing, selling, reselling, or distributing healthcare products used by or on patients to disclose. Prior to participating in this activity, please see the author financial relationship disclosure information at the beginning of each article.

Commercial Support
This activity has received no commercial support.

Instructions
To receive a statement of credit for up to 1.0 *AMA PRA Category 1 Credit*™ per article, you must:
1. Review the information on this page.
2. Read the journal article.
3. Successfully answer all post-test questions through **www.masterclinicians.net/courses/jucm-print-subscription.**
4. Complete the evaluation.

Estimated Time to Complete This Educational Activity
The estimated time to complete this issue's CME activity is 3 hours.

Fee
There is an annual subscription fee of $195 for this program, which includes up to 33 *AMA PRA Category 1 Credits*™.

Email inquiries to info@urgentcarecme.com

Medical Disclaimer
As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required. The authors have checked with sources believed to be reliable in their efforts to provide information that is complete and generally in accord with the standards accepted at the time of publication.

Although every effort is made to ensure that this material is accurate and up-to-date, it is provided for the convenience of the user and should not be considered definitive. Since medicine is an ever-changing science, neither the authors nor Master Clinicians, LLC nor *The Journal of Urgent Care Medicine* or any other party who has been involved in the preparation or publication of this work warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from the use of such information.

Readers are encouraged to confirm the information contained herein with other sources. This information should not be construed as personal medical advice and is not intended to replace medical advice offered by physicians. Master Clinicians, LLC and *The Journal of Urgent Care Medicine* will not be liable for any direct, indirect, consequential, special, exemplary, or other damages arising therefrom.

CONTINUING MEDICAL EDUCATION

JUCM CME subscribers can submit responses for CME credit at **www.masterclinicians.net/courses/jucm-print-subscription.** Post-test questions are featured below for your convenience. This issue is approved for up to *3 AMA PRA Category 1 Credits™*. Credits may be claimed for 2 years from the date of this issue.

When a Headache is the Worst-Case Scenario: A Case Report of Glioblastoma (page 11)

1. What device could be used to identify warning signs and red flags for evaluation of a patient presenting with headache?
a. SNOOP mnemonic
b. STARS mnemonic
c. HIPAA mnemonic
d. HEAT mnemonic

2. What is the median survival rate for glioblastoma?
a. 4 to 5 months from diagnosis
b. 14 to 15 months from diagnosis
c. 4 to 5 years from diagnosis
d. 14 to 15 years from diagnosis

3. What are some of the earliest symptoms of glioblastoma?
a. Cognitive deficits, altered motor function, and headaches
b. Ear pain and cough
c. Nausea and vomiting
d. All of the above

Gynecologic Causes of Abdominal and Pelvic Pain: Diagnosis and Management (page 15)

1. What is the leading cause of first-trimester maternal mortality?
a. Ectopic pregnancy
b. Dysmenorrhea
c. Ovarian cysts
d. Ultrasounds

2. What is the recommended course of action for urgent care clinicians when ovarian torsion is suspected?
a. Refer to primary care
b. Conduct on-site lab testing
c. Refer to emergency department
d. Administer ceftriaxone 500 mg intramuscularly

3. What is the imaging modality of choice for patients with suspected ovarian cysts?
a. Ultrasound
b. Radiography
c. Computed tomography
d. There are no imaging options

Urgent Care Evaluation and Management of De Quervain Tenosynovitis (page 23)

1. Which population is more likely to be affected by De Quervain tenosynovitis?
a. Children under age 5
b. Adults age 75 and older
c. Men
d. Women

2. Of these, which activity may lead to De Quervain tenosynovitis?
a. Sleeping in a prone position
b. Long-distance running
c. Repetitive thumb and wrist motions
d. Pointe ballet dancing

3. Which of these is a typical symptom of De Quervain tenosynovitis?
a. Pain
b. Swelling and stiffness
c. Popping or creaking sensation
d. All of the above

Unified. AI-Driven. Patient-Centered.

SIMPLIFY URGENT CARE WORKFLOWS

Urgent care demands speed, accuracy, and constant coordination. Connect your front desk, clinical, and billing workflows into one unified AI-driven platform, so every visit moves forward without friction.

- Throughput – Move patients from check-in to discharge without bottlenecks
- Revenue – Capture accurate charges and submit cleaner claims automatically
- Visibility – See patient flow, documentation, and performance in real time
- Patient Care – Stay present with patients while documentation happens in the background with AI Scribe

5
MINUTES SAVED PER VISIT ON DOCUMENTATION WITH AI SCRIBE**

<2
MINUTES TO REGISTER PATIENT**

1.5
HOURS SAVED STAFF TIME PER DAY*

* A commissioned study conducted by Forrester Consulting on behalf Experity, 2/21/25 ** Experity Data

See More Patients. Deliver Better Care. Optimize Revenue.

EXPLORE OUR
EMR/PM

EXPERITY®
ExperityHealth.com | 815.544.7480

Case Report

CME: This article is offered for AMA PRA Category 1 Credit.™
See CME Quiz Questions on page 9.

When a Headache is the Worst-Case Scenario: A Case Report of Glioblastoma

Urgent Message: While most headache presentations are not life-threatening, urgent care providers must remain vigilant in identifying patients with potentially serious conditions who require transfer to a higher level of care.

Elizabeth Minchau, DNP, APRN-BC; Saira George, MD; Stephanie Rellick, PhD; Carmen N. Burrell, DO

Citation: Minchau E, George S, Rellick S, Burrell CN. When a Headache is the Worst-Case Scenario: A Case Report of Glioblastoma. *J Urgent Care Med.* 2026; 20(8):11-14

Keywords: headache; glioblastoma; aphasia; intracranial mass; secondary headache; neurologic deficit

Abstract

Introduction: Patients often present to urgent care (UC) clinics for headaches. While most headaches are non-life-threatening, the UC provider must remain vigilant in identifying patients with potentially serious conditions who require expedited evaluation at a higher level of care.

Case Presentation: A 53-year-old man with a history of cervical strain for 4 months from a motor vehicle accident presented to the UC with worsening headaches that were increasing in both frequency and severity. The patient also complained of speech difficulties.

Physical Exam: Exam findings included a blood pressure of 150/100 mm Hg, right eye ptosis, and right pupillary dilation. The patient demonstrated difficulty with speech and displayed signs of emotional lability during the encounter.

Diagnosis: The UC provider referred the patient to the emergency department where imaging and subsequent biopsy revealed a multifocal glioblastoma in the left hemisphere.

Case Resolution: Neurosurgery performed a subtotal resection, and following surgery, the patient transferred

Author Affiliations: Elizabeth Minchau, DNP, APRN-BC, West Virginia University School of Nursing; Department of Emergency Medicine, West Virginia University. **Saira George, MD,** Department of Emergency Medicine, West Virginia University. **Stephanie Rellick, PhD,** Department of Emergency Medicine, West Virginia University. **Carmen N. Burrell, DO,** Department of Emergency Medicine, West Virginia University. Authors have no relevant financial relationships with any ineligible companies.

care to an out-of-state facility. His oncology team there performed a second resection, but unfortunately, he succumbed to his disease approximately 5 months following the initial UC presentation.

Conclusion: UC providers play a critical role in helping to identify patients presenting with vague symptoms. It remains important to gather a thorough patient-specific history, perform a comprehensive exam, and consider a broad differential diagnosis, especially in patients who complain of headache.

Introduction

The presentation of patients to an acute care setting with "headache" is quite common, with the majority of cases being benign (~96%).[1] There are 3 classifications of headaches, which must be differentiated at presentation: primary, including migraines or cluster headaches; secondary, where there is a known or suspected underlying causative factor; and lastly, neuropathies, facial pains, and other headaches.[2] It is the role of the urgent care (UC) provider to identify which patients may be at risk for a more serious, underlying condition and to decide what further actions are necessary. The SNOOP mnemonic **(Table 1)** can be used to identify warning signs and symptoms as well as "red flags" during the patient evaluation.[3]

Case Presentation

A 53-year-old man presented alone to the UC clinic with a complaint of a worsening headache. In a rear-end motor-vehicle incident 4 months earlier, he sustained a cervical strain. A computed tomography (CT) scan of the brain at the time of his car accident was normal. On the day of the UC visit, he reported feeling that his neck was still "out of place," and he believed that it may be contributing to his headache.

The patient described the location of his headaches as localized to the frontal and left temporal regions and described his pain as "intermittent" and like a "dull toothache." His headaches had recently increased in frequency and were now occurring daily. The patient also reported 3 weeks of difficulty with speaking, specifically, "getting out what I want to say." He reported that his friends and family had also noted that he seemed confused and was having difficulty with his speech. They had even become concerned that he may be using drugs or alcohol, which he denied. The patient also reported that he had felt more "emotional" lately and that he was having trouble controlling new-onset tearful outbursts. Due to the headaches, his primary care provider (PCP) had him start checking his blood pressure at home, and he reported that it had been "higher than normal."

On the day of the visit, he denied numbness, syncope, weakness, blurred vision, chest pain, shortness of breath, and facial drooping.

Table 1. SNOOP Mnemonic[11]

S	**S**ystemic signs and disorders
N	**N**eurologic symptoms
O	**O**nset new or changed; patient age >50 years
O	**O**nset in thunderclap presentation
P	**P**apilledema, **P**ulsatile tinnitus, **P**ositional provocation, **P**recipitated by exercise

Physical Exam Findings

At the UC visit, vital signs were normal except for a blood pressure of 150/100 mm Hg and a body mass index of 34. The patient was well appearing and personable. There was a subtle right eyelid droop and a slightly dilated right pupil, which had a normal reaction to light. The remainder of the cranial nerve exam was normal. A neurological exam found the patient alert and oriented to person, place, and time. He showed no mobility deficits or evidence of unilateral weakness. He demonstrated difficulty recalling words and appeared to be stuttering at times. He had difficulty finishing sentences and seemed frustrated with his inability to speak clearly and coherently. He had several crying spells over the course of the physical exam.

Medical Decision Making

The provider recognized several red flags including age greater than 50, labile emotions, right eyelid and pupillary abnormalities, personality changes, dysphasia, and a worsening headache pattern. The provider recommended immediate transfer to the emergency department (ED) for evaluation.

Differential Diagnosis and Final Diagnosis

The differential diagnoses at the time of transfer included hypertensive emergency, cerebrovascular accident, normal pressure hydrocephalus, brain mass, affective disorder, and substance use disorder. A CT angiogram with and without contrast showed a 4.5 cm ill-defined left frontal lobe mass with mass effect and vasogenic edema **(Figure 1)**. Magnetic resonance imaging (MRI) was suggestive of multifocal glioblastoma in the left hemisphere with compression of the right ventricle **(Figure 2)**. Dex-

Figure 1. Intracranial CT Angiogram

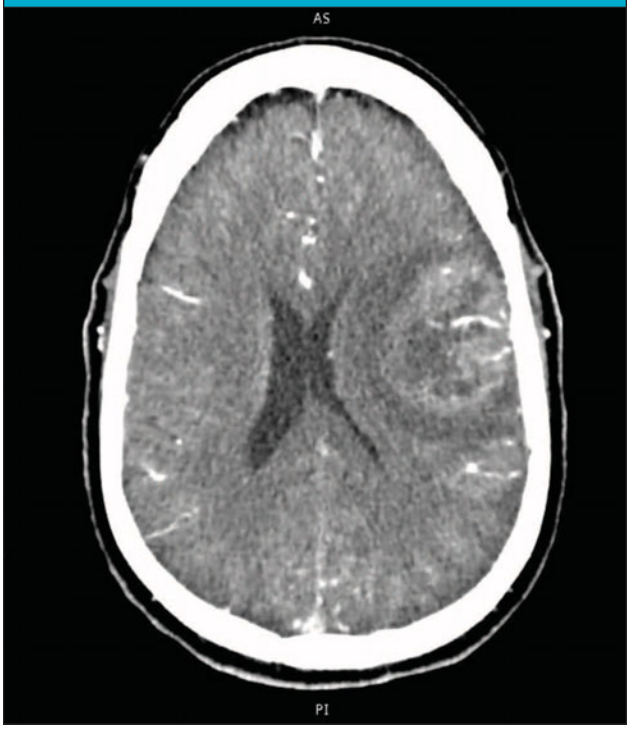
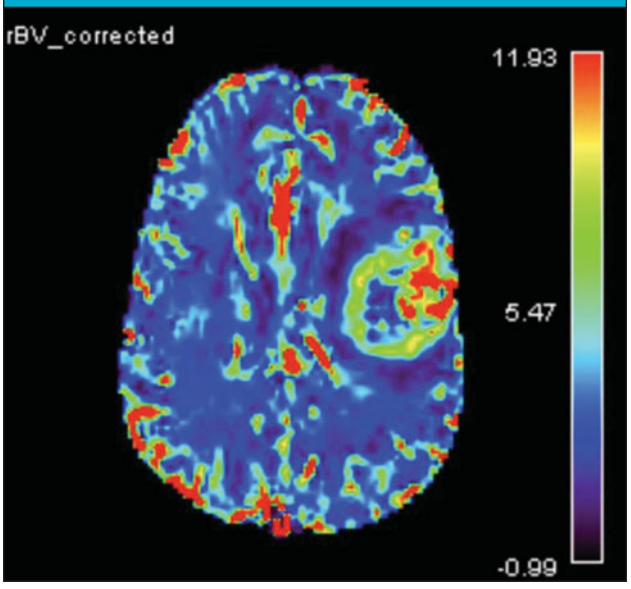


Figure 2. MRI Suggestive of Multifocal Glioblastoma



amethasone, famotidine, and levetiracetam were started. A biopsy result showed a "high-grade astrocytoma, favor glioblastoma." Neurosurgery performed a subtotal resection 10 days after initial presentation and temozolomide and ondansetron were started. The patient had pending appointments with local neuro-oncology and neuro-radiation clinics but opted to transfer his care to an out-of-state facility where a second resection was performed 8 weeks later. We were notified of his death almost 5 months after initial UC presentation.

Discussion

Glioblastoma multiforme is an aggressive form of a central nervous system glioma with a median survival rate of 14 to 15 months from diagnosis. Glioblastoma multiforme accounts for 60% of all brain tumors in adults.[4,5] Interestingly, this patient had undergone a head CT scan due to a motor vehicle crash 4 months prior to his headache presentation at the UC clinic. That CT scan was normal.

Some of the earliest symptoms reported at diagnosis of glioblastoma include cognitive deficits, dizziness, altered motor function, and headaches.[6,7] While rare, tumor-related headaches can mimic more common headaches, including tension headaches, migraine, and others.[8] The lifetime risk of developing a malignant tumor in the brain or spinal cord is less than 1%.[9] However, providers must consider tumor and other secondary causes in situations where symptoms are atypical. Some research studies have reported that preceding any visible or pronounced symptoms, subtle changes are noticed by loved ones or the patient themselves.[7] Patients may describe themselves as "feeling off,"[7] or as in this case, "having difficulty getting out what I want to say." The patient reported that his loved ones also noticed these changes and had shared their concerns related to the patient seeming "confused" when speaking several weeks before his first medical encounter. This highlights the importance of both educating patients to seek care for uncharacteristic changes in behavior or function and maintaining provider awareness of early warning signs of serious underlying conditions.[7]

Patients often present to the UC clinic for a complaint of headache. Clinic evaluation and treatment resources vary, but all UCs should be able to consider concerning secondary causes of headache.[10] In addition, UC clinics, when integrated within larger health systems, can rapidly communicate with a patient's PCP and ED providers to efficiently refer the patient for further evaluation or emergent follow-up care.

Although a chief complaint of headache is common across spheres of care, the incidence of the "worst-case scenario," remains rare.[9] Prompt evaluation of headache is vital in identifying all potential critical causes and initiating timely treatment. Providers must remain diligent in gathering patient-specific history and performing a comprehensive examination during encounters for complaints of headache.

Ethics Statement

We contacted next of kin and obtained verbal permission for publication of this case, allowing for the completion of a system-required, Authorization for Medical Case Study and Publication for the Use of Deidentified Medical Information form, placed in the patient's electronic health record by the provider.

Takeaways for Urgent Care Providers

- Perform a thorough history and physical examination to evaluate for headache "red flags."
- Headaches associated with neurological symptoms should prompt further investigation.
- Prompt evaluation of headache is vital in identifying concerning secondary causes and initiating timely treatment.
- Although rare, glioblastoma and other central nervous system malignancies must remain on the differential diagnoses of UC providers as they evaluate patients with headache. ■

Manuscript submitted August 13, 2025; accepted March 11, 2026.

References

1. Raam R, Tabatabai RR. Headache In The Emergency Department: Avoiding Misdiagnosis Of Dangerous Secondary Causes, An Update. *Emerg Med Clin North Am.* 2021;39(1):67-85. doi:10.1016/j.emc.2020.09.004
2. Headache Classification Committee of the International Headache Society. The International Classification Of Headache Disorders, 3rd Edition. Accessed June 10, 2025. https://ichd-3.org/
3. Hansen P. More Than A Simple Headache: Using The SNNOOP10 Criteria To Screen For Life-Threatening Headache Presentations. *J Urgent Care Med.* 2023;17(8):18-21.
4. Koshy M, Villano JL, Dolecek TA, et al. Improved Survival Time Trends For Glioblastoma Using The SEER 17 Population-Based Registries. *J Neurooncol.* 2012;107(1):207-212. doi:10.1007/s11060-011-0738-7
5. Hanif F, Muzaffar K, Perveen K, Malhi SM, Simjee SU. Glioblastoma Multiforme: A Review Of Its Epidemiology And Pathogenesis Through Clinical Presentation And Treatment. *Asian Pac J Cancer Prev.* 2017;18(1):3-9. doi:10.22034/apjcp.2017.18.1.3
6. IJzerman-Korevaar M, Snijders TJ, de Graeff A, Teunissen SCCM, de Vos FYF. Prevalence of symptoms in glioma patients throughout the disease trajectory: a systematic review. *J Neurooncol.* 2018;140(3):485-496. doi:10.1007/s11060-018-03015-9
7. Walter FM, Penfold C, Joannides A, et al. Missed Opportunities For Diagnosing Brain Tumours In Primary Care: A Qualitative Study Of Patient Experiences. *Br J Gen Pract.* 2019;69(681):e224-e235. doi:10.3399/bjgp19X701861
8. Dancy J. Evaluation Of Headaches In Urgent Care Part 1: Emergent Headaches. *J Urgent Care Med.* 2014;8(8):9-17.
9. American Cancer Society. Key Statistics For Brain And Spinal Cord Tumors. Accessed November 9, 2025. https://www.cancer.org/cancer/types/brain-spinal-cord-tumors-adults/about/key-statistics.html
10. Minen MT, Khanns D, Guiracocha J, et al. The Role Of Urgent Care Centers In Headache Management: A Quality Improvement Project. *BMC Health Serv Res.* 2022;22(1):162. doi:10.1186/s12913-021-07457-2
11. Do TP, Remmers A, Schytz HW, et al. Red And Orange Flags For Secondary Headaches In Clinical Practice: SNNOOP10 List. *Neurology.* 2019;92(3):134-144. doi:10.1212/WNL.0000000000000669

CME: This peer-reviewed article is offered for AMA PRA Category 1 Credit.™
See CME post-test questions on page 9.

Gynecologic Causes of Abdominal and Pelvic Pain: Diagnosis and Management

Urgent Message: Abdominal and pelvic pain are common presentations to urgent care. Clinicians need to maintain a broad differential to make the correct diagnosis and offer appropriate treatment.

Anisah Chauhdry, MS; Naushair Hussain, DO; Michael B. Weinstock, MD

Citation: Chauhdry A, Hussain N, Weinstock MB. Gynecologic Causes of Abdominal and Pelvic Pain: Diagnosis and Management. *J Urgent Care Med*. 2026;20(8): 15-21

Keywords: pelvic pain; ectopic pregnancy; pelvic inflammatory disease; ovarian torsion; ovarian cysts; dysmenorrhea

Editor's Note: *The patient case scenario is hypothetical to enhance educational value.*

Abstract

Causes of abdominal and pelvic pain in reproductive-aged women include many diagnoses as well as some potential gynecologic emergencies. This review article highlights key gynecologic etiologies including ectopic pregnancy, pelvic inflammatory disease, ovarian torsion, ovarian cysts, endometriosis, and dysmenorrhea. A thorough history, abdominal and pelvic examinations, and ultrasound are essential for diagnosis, appropriate triage, and treatment for patients who present with these complaints.

Introduction

Abdominal and pelvic pain are common clinical complaints.[1] Urgent care clinicians must understand how to diagnose, triage, and manage these cases effectively. High consideration should be given for gynecologic etiologies, which include pregnancy-related, infectious/inflammatory, structural/mechanical, and hormonal factors, as well as ectopic pregnancy, pelvic inflammatory disease (PID), ovarian torsion, ovarian

Author affiliations: Anisah Chauhdry, MS, medical student, Lincoln Memorial University, DeBusk College of Osteopathic Medicine. **Naushair Hussain, DO,** internal medicine resident, Indianapolis University School of Medicine. **Michael B. Weinstock, MD,** Adena Health System; Department of Emergency Medicine, Wexner Medical Center at The Ohio State University; *The Journal of Urgent Care Medicine*. Authors have no relevant financial relationships with any ineligible companies.

cysts, and dysmenorrhea. Ectopic pregnancy remains the leading cause of first-trimester maternal mortality and must be ruled out in any patient with pelvic pain and potential pregnancy.[2] PID is a common, clinically diagnosed infection requiring prompt broad-spectrum antibiotics to prevent infertility and chronic pain. Ovarian torsion represents a surgical emergency due to the risk of ovarian ischemia, while ovarian cysts are frequently benign but may cause pain or torsion. Dysmenorrhea, the most common gynecologic condition, is pain related to menstruation.[3]

Case Presentation

A 25-year-old G1P1 (gravida 1, para 1, ie, 1 pregnancy and 1 birth) woman presented to urgent care with 2 days of right lower quadrant (RLQ) sharp and stabbing abdominal pain. She reported it began gradually and was progressively worsening. The pain was 8 out of 10 in intensity, without radiation of the pain. Her last menstrual period was roughly 6 weeks ago. She had been sexually active with her male partner, but they had been inconsistent with using condoms. She denied dysuria, increased urinary frequency or hesitancy, vomiting, diarrhea, or vaginal discharge. The urine pregnancy test was positive.

- **Past medical history:** None
- **Medications**: None
- **Social history:** Occasionally smokes; minimal alcohol
- **Physical exam:** Temperature of 37.2°C; heart rate of 105 beats per minute; blood pressure of 100/60 mm Hg; respiratory rate of 15 breaths per minute; and oxygen saturation of 99% on room air
- **General:** No acute distress; appeared uncomfortable
- **Chest**: Tachycardic rate and regular rhythm; no murmurs or bruits
- **Lungs**: Clear to auscultation bilaterally; no wheezes or rhonchi
- **Abdomen**: Normal appearance without surgical scars; soft, moderately to severely tender to palpation in RLQ with mild guarding; no rebound tenderness
- **Pelvic exam:** Blood in the vaginal vault; positive cervical motion tenderness; right adnexal tenderness

Epidemiology

Abdominal pain in women has a broad differential diagnosis, ranging from benign to life-threatening conditions. According to the Centers for Disease Control and Prevention (CDC), stomach and abdominal pain were the number 1 reason for emergency department visits in the United States from 2016 to 2022.[1]

When a female patient presents with abdominal pain, providers must consider a wide range of etiologies, including gynecologic, gastrointestinal, urinary, musculoskeletal, and traumatic etiologies. However, this review will focus specifically on gynecologic etiologies, which can be categorized into 4 broad groups:

- Pregnancy-related
- Infectious/inflammatory
- Structural/mechanical
- Hormonal

There are many diagnoses that may be considered in each of these groups; however, this review will focus on the following etiologies:

- Pregnancy-related—ectopic pregnancy
- Infectious/inflammatory—pelvic inflammatory disease
- Structural/mechanical—ovarian torsion, ovarian cysts, and endometriosis
- Hormonal—dysmenorrhea

Pregnancy-Related Causes: Ectopic Pregnancy

Ectopic pregnancy is defined as the implantation of a fertilized ovum outside the normal uterine cavity. The fallopian tube is the most common site of implantation, accounting for more than 90% of cases.[4] In the United States, ectopic pregnancies occur in approximately 1–2% of all reported pregnancies.[5] Despite being relatively uncommon, ectopic pregnancy remains the leading cause of pregnancy-related death in the first trimester, responsible for 3–6% of such fatalities, primarily due to complications related to tubal rupture.[2] The classic triad of ectopic pregnancy includes amenorrhea, abdominal or pelvic pain, and vaginal bleeding. However, these symptoms are often nonspecific, making clinical diagnosis challenging.

Risk factors for ectopic pregnancy primarily involve conditions that lead to tubal inflammation or scarring, such as a history of pelvic inflammatory disease and prior pelvic or fallopian tube surgeries. Women with a history of ectopic pregnancy have an increased risk of recurrence. After 1 prior ectopic pregnancy, the recurrence risk is approximately 10%, rising to more than 25% after 2 or more prior ectopic pregnancies. Additional risk factors include maternal age over 35 years, use of fertility medications, history of in vitro fertilization, and tobacco use.[4]

On physical exam, several findings are associated with ectopic pregnancies. Examples include the pres-

"In urgent care, initial evaluation for any woman of reproductive age presenting with abdominal pain or vaginal bleeding should begin with a urine pregnancy test. If an ultrasound to rule in IUP is not available, the patient should be referred to the emergency department for further evaluation."

ence of an adnexal mass without evidence of an intrauterine pregnancy (IUP), which has a favorable likelihood ratio (LR+) of 111; cervical motion tenderness, which has an LR+ of 4.9; and adnexal tenderness, which has an LR+ of 1.9.[2] Given these limitations, physical examination should always be interpreted in the context of the complete clinical picture.

In urgent care, initial evaluation for any woman of reproductive age presenting with abdominal pain or vaginal bleeding should begin with a urine pregnancy test. If an ultrasound to rule in IUP is not available, the patient should be referred to the emergency department (ED) for further evaluation.

In the ED, an ultrasound should be performed to either rule in IUP, or if a fetus (with heart tones) is not seen, then a transvaginal ultrasound (TVUS) should be done to evaluate for ectopic pregnancy.[4] β-hCG quantitative testing is helpful in the evaluation but cannot alone confirm or exclude ectopic pregnancy. A "discriminatory level" of β-hCG refers to the threshold above which an intrauterine gestation should be visible on TVUS.[4] According to the American College of Obstetricians and Gynecologists, if no IUP is visualized when the β-hCG exceeds 3,500 mIU/mL, this strongly suggests a likely nonviable gestation, either ectopic or early pregnancy loss.[4] When the clinical picture raises concern for an abnormal gestation, a repeat β-hCG level after 48 hours is indicated; its interpretation depends on serial measurements and correlation with ultrasound findings. Falling β-hCG levels may indicate a failing intrauterine pregnancy or an ectopic pregnancy, which should prompt continued observation and follow-up with OB/GYN specialists.

TVUS is the diagnostic modality of choice. The presence of a gestational sac containing a yolk sac or fetal pole outside the uterus is diagnostic of ectopic pregnancy.[2] Ultrasound identifies an ectopic pregnancy in many cases, most commonly appearing as a heterogeneous adnexal mass that is separate from the ovary, which is seen in roughly 60% of patients.[2] Free intraperitoneal fluid on ultrasound raises concern for hemoperitoneum and may warrant emergent operative intervention.[6]

Management depends on the patient's hemodynamic stability and presence of rupture. For hemodynamically stable patients with confirmed, unruptured ectopic pregnancies, medical management with methotrexate is a safe and effective treatment. Although single-dose methotrexate regimens are more convenient, multidose protocols have demonstrated higher success rates.[6] Medical management avoids surgical risks but requires multiple office visits and close monitoring of β-hCG levels to ensure resolution. In contrast, surgical management, typically via laparoscopy with salpingectomy, is necessary for unstable patients who have evidence of rupture or who fail medical therapy.

Infectious/Inflammatory Causes: Pelvic Inflammatory Disease

PID is an ascending infection of the upper female reproductive tract that primarily affects young, sexually active women.[7] It is a significant clinical concern in urgent care and emergency department settings due to its often subtle presentation and the potential for serious complications, which include ectopic pregnancy, infertility, tubo-ovarian abscess (TOA), and chronic pelvic pain.[7]

According to analyses of data from the National Health and Nutrition Examination Survey 2013–2014, approximately 4.4% of sexually active women aged 18–44 years in the United States reported a history of PID, equating to roughly 2.5 million women.[8]

PID may affect any part of the upper genital tract, including the uterus (endometritis), fallopian tubes (salpingitis), ovaries (tubo-ovarian abscess), and even the peritoneum (pelvic peritonitis). The infection can spread to the perihepatic area, leading to inflammation of the liver capsule and the formation of perihepatic adhesions (ie Fitz-Hugh–Curtis syndrome, which is pathognomonic for PID).[7]

PID most commonly results from the ascent of pathogens from the lower genital tract. Sexually transmitted infections (STIs) are frequent culprits, particularly *Chlamydia trachomatis* and *Neisseria gonorrhoeae*.[7] Approximately 15% of untreated chlamydial infections progress to PID.[9] Bacterial vaginosis (BV) has also been associated with increased PID risk, although no evidence

Table 1. Ovarian-Adnexal Reporting and Data System (O-RADS) Risk Stratification for Adnexal Masses[13]

O-RADS	Malignancy Risk	Example Findings
0	Not applicable	• Incomplete evaluation
1	Not applicable	• Normal ovary, follicle development, corpus luteum
2	<1%	• Simple cyst <10 cm in size
3	<10%	• Larger unilocular cysts ≥10 cm • Larger typically benign lesions ≥10 cm • Multilocular cysts <10 cm
4	10-49%	• Multilocular cysts ≥10 cm • Unilocular cysts with solid components (0–3 papillary projections) • Solid cysts
5	≥50%	• Unilocular cysts with ≥4 papillary projections • Multilocular cysts with solid components • Ascites and/or peritoneal nodules

exists that screening for BV reduces PID incidence.[9]

Key risk factors for PID include:[9]

- Age <25 years
- Multiple or new sexual partners
- Unprotected intercourse with a symptomatic partner
- Early onset of sexual activity (<15 years)
- History of STIs or previous PID episodes

The diagnosis of acute PID can be challenging due to its nonspecific presentation. Patients often report lower abdominal or pelvic pain, which may be accompanied by abnormal uterine bleeding, dyspareunia, dysuria, nausea, or vomiting. Despite the severity of the underlying infection, more than half of patients may be afebrile on presentation. Systemic signs such as fever or sepsis tend to occur only in more advanced or severe cases.[7] PID is a diagnosis usually made clinically.

Findings on pelvic examination may include mucopurulent cervical discharge, cervical motion tenderness, and adnexal tenderness. A bimanual and speculum exam should be performed in suspected cases. Lab testing, including complete blood count and inflammatory markers like erythrocyte sedimentation rate and C-reactive protein are not typically done, but may become abnormal in severe cases.[7] STI testing reveals chlamydia and gonorrhea in approximately 20–30% of cases, and BV is present in more than 50%.[7]

According to CDC guidelines, outpatient management of PID should include:[7,10]

- Ceftriaxone 500 mg intramuscularly once at diagnosis
- Doxycycline 100 mg orally twice daily for 14 days
- Metronidazole 500 mg orally twice daily for 14 days

Structural/Mechanical Causes: Ovarian Torsion

Ovarian torsion is a gynecologic surgical emergency. Approximately 30% of adnexal torsion cases occur in women under age 20.[11] Ovarian torsion is the partial or complete rotation of the ovary around the infundibulopelvic ligament, leading to obstruction of ovarian blood flow. Ovarian torsion occurs more frequently on the right side due to the restrictive presence of the descending colon on the left, which limits ovarian mobility.[12] Prompt diagnosis is critical, as delays can result in ischemia, necrosis, and reduced fertility.

Risk factors for ovarian torsion include:[11]

- History of pelvic mass >5 cm found on physical exam or imaging modality
- Prior pelvic surgery
- Congenitally long ovarian ligaments
- Excessive pelvic ligament laxity
- Small uterus

The hallmark symptom of ovarian torsion is sudden-onset, non-radiating, intermittent unilateral lower abdominal pain (present in more than 80% of patients), often accompanied by nausea and vomiting.[11] Given the nonspecific symptoms, a high index of suspicion is recommended. Rebound tenderness and peritoneal signs are only present in 12–27% of patients.[11]

Unfortunately, lab tests are not helpful in confirming the diagnosis.[11] Transabdominal ultrasound is the first-line imaging modality, with a sensitivity of 92% and specificity of 96%. Common findings include:[11]

- Enlarged, heterogeneous ovary

- Asymmetric ovarian size (torsed ovaries may be up to 12 times the volume of the unaffected ovary)
- Peripheral displacement of follicles
- Whirlpool sign (twisted vascular pedicle, which is highly specific but difficult to detect)

Ultrasound Doppler flow studies have limitations: Up to 60% of confirmed torsion cases demonstrate normal arterial flow due to intermittent or collateral circulation.[11] While computed tomography (CT) and magnetic resonance imaging (MRI) can also be used, no clinical or imaging finding can definitively exclude torsion. Emergent diagnostic laparoscopy is the gold standard.[11]

Structural/Mechanical Causes: Ovarian Cysts

Ovarian cysts are a common finding in both premenopausal and postmenopausal women. These fluid-filled sacs arise from the ovary and can be classified as physiologic (functional) or pathologic. While the vast majority of ovarian cysts are benign, ovarian cancer must remain on the differential. Stage 1 ovarian cancer can be cured in up to 90% of patients, however, as the ovarian cancer spreads and metastasizes, advancing to stages 3 and 4, the survival rate drastically drops to 20% or less.[13,14]

Most ovarian cysts are discovered incidentally on imaging.[13] When symptomatic, patients may present with abdominal or pelvic pain, a sensation of pressure or fullness, or complications such as torsion or rupture—causing peritoneal inflammation with the fluid that is inside the cyst wall.

TVUS is the imaging modality of choice due to its accessibility, cost-effectiveness, and diagnostic utility.[13] Simple cysts up to 10 cm in diameter are typically benign. Concerning features include septations, irregular margins, solid components, or increased vascularity.[13]

The American College of Radiology developed O-RADS (Ovarian-Adnexal Reporting and Data System) to standardize ultrasound reporting and risk stratification for malignancy **(Table 1).** If TVUS is inconclusive or technically limited, MRI is the next best modality.[13]

Most ovarian cysts are benign and can be managed conservatively with follow-up imaging. Current recommendations are to have a repeat TVUS in 8–12 weeks for simple or hemorrhagic cysts measuring 5–10 cm.[13] If a hemorrhagic cyst persists beyond this period, referral to gynecology is warranted. Oral contraceptives are no longer recommended for the prevention or treatment of ovarian cysts.[13] Patients who present with persistent pain, an increase in cyst size, or any imaging features suggestive of malignancy should be referred for surgical evaluation.

"For patients with dysmenorrhea not seeking pregnancy, hormonal contraception is considered first-line therapy, either alone or in combination with nonsteroidal anti-inflammatory drugs."

Hormonal Causes: Dysmenorrhea

Dysmenorrhea is painful menstruation and is the most common gynecologic condition affecting women.[3] Pain severity can range from minimal to debilitating.

Primary dysmenorrhea refers to painful menstruation without an underlying pelvic pathology. In contrast, secondary dysmenorrhea is associated with an additional pelvic diagnosis, such as endometriosis, PID, uterine fibroids (leiomyomas), or interstitial cystitis.[3]

Primary dysmenorrhea typically begins with the onset of ovulatory menstrual cycles, usually within 6–12 months of menarche, though it may occur up to 2 years later in some adolescents.[3] The prevalence decreases with age. The pain is characteristically crampy, fluctuates in intensity, and begins shortly before or at the start of menstruation, often lasting up to 72 hours.[3] It is most commonly localized to the suprapubic region and may radiate to the lower back or upper thighs.

Risk factors include:[3]

- Age <30 years
- Body mass index <20
- Smoking
- Early menarche (before age 12)
- Longer or heavier menstrual periods
- Irregular cycles
- History of sexual assault
- Family history of dysmenorrhea

Physical examination typically reveals a mobile, nontender uterus of normal size with no adnexal masses, uterosacral nodularity, or mucopurulent discharge. In patients with a concern for a diagnosis, such as PID, toxic shock, foreign body, or mass, a pelvic exam is recommended.[15]

For patients with dysmenorrhea not seeking pregnancy, hormonal contraception is considered first-line therapy, either alone or in combination with nonsteroidal anti-inflammatory drugs (NSAIDs). These therapies reduce endometrial proliferation and prostaglandin production, thereby relieving pain.[15] Options include combined oral contraceptives, progestin-only

methods, and intrauterine devices (IUDs).

Other therapies may include:

- **NSAIDs**: A nonhormonal option, they work by inhibiting prostaglandin synthesis and are superior to both placebo and acetaminophen for treating primary dysmenorrhea. They should be initiated 1–2 days before the onset of menses and continued during the first 2–3 days of bleeding.[15]
- **Nonpharmacologic options:** While physical activity, acupuncture, and high-frequency transcutaneous electrical nerve stimulation have been studied, none have demonstrated superiority compared with hormonal or NSAID therapies. Small studies suggest potential benefits from Chinese herbal medicine and dietary supplements, but these findings require further validation.[15]

Structural/Mechanical Causes: Endometriosis

Endometriosis should be considered in the gynecologic differential diagnosis of chronic pelvic pain. This chronic, estrogen-dependent inflammatory disease is characterized by ectopic endometrial-like tissue outside the uterine cavity and affects approximately 10% of reproductive-age women worldwide. It is a prevalent cause of chronic pelvic pain and infertility, with most patients reporting dysmenorrhea, noncyclic pelvic pain, or dyspareunia, and approximately one-quarter experiencing infertility.[16] Established risk factors include early menarche, shorter menstrual cycle length, lower body mass index, nulliparity, and obstructive Müllerian anomalies.[16]

Diagnosis is frequently delayed by several years, often following evaluation by multiple clinicians. Although a definitive diagnosis requires laparoscopic visualization with histologic confirmation, a clinical diagnosis is commonly made based on characteristic symptoms supported by examination and imaging findings.[16] TVUS is useful for identifying ovarian endometriomas, and pelvic magnetic resonance imaging may assist in detecting deep infiltrating disease; however, normal imaging does not exclude endometriosis. For patients not seeking pregnancy, first-line management consists of hormonal suppression with combined estrogen-progestin contraceptives or progestin-only therapies. Gonadotropin-releasing hormone analogs, antagonists, and surgical excision are reserved for persistent or refractory symptoms, although recurrence remains a recognized limitation of treatment.[16]

Case Resolution

Given the high concern for ectopic pregnancy, the patient was sent to the emergency department where an OB/GYN specialist was consulted. The patient was then taken to surgery for diagnostic laparoscopy where she was confirmed to have a ruptured right tubal ectopic pregnancy. Right salpingectomy was performed. The patient had an uneventful post-op course and made a full recovery.

Pitfalls in Abdominal and Pelvic Pain Diagnosis and Management

Several common diagnostic errors can delay appropriate management of gynecologic causes of abdominal and pelvic pain. A urine pregnancy test should be obtained in all reproductive-age patients presenting with abdominal or pelvic pain, as ectopic pregnancy may present with subtle or nonspecific findings.[2,4,5,6] Ectopic pregnancy should not be excluded based solely on a β-hCG value below the discriminatory threshold or a single nondiagnostic ultrasound.[2,4,5,6]

A thorough pelvic examination remains essential. Failure to perform a speculum and bimanual examination may result in missed findings such as cervical motion tenderness, adnexal tenderness, uterine enlargement, or abnormal discharge, which help distinguish ectopic pregnancy and PID from other etiologies.[7,9] Isolated pyuria without bacteriuria should prompt consideration of STI or PID rather than empiric treatment for urinary tract infection.[7,9,10]

Ovarian torsion cannot be excluded by preserved Doppler flow, as normal arterial perfusion may be present in confirmed cases.[11,12] Likewise, the presence of free pelvic fluid without a discrete adnexal mass does not rule out ruptured ovarian cyst.[13] In patients with chronic pelvic pain, symptoms should not be attributed to primary dysmenorrhea without evaluating for secondary causes such as endometriosis or uterine leiomyomas, which are frequently underrecognized and associated with delayed diagnosis.[3,16]

Conclusion

Pelvic pain in women can range from benign to life-threatening, with delays in diagnosis leading to significant morbidity, including surgical complications, infertility, and mortality. Given that abdominal pain is one of the most common clinical complaints, urgent care facilities must understand how to triage and manage these cases effectively. As reviewed, several common etiologies of acute abdominal pain in women can be identified through a thorough history, physical examination, and the use of ultrasound, all of which are critical in making a timely diagnosis and preventing further complications.

Takeaway Points

- Ectopic pregnancy is the leading cause of first-trimester maternal mortality. In women of childbearing age with abdominal or pelvic pain, always perform a urine pregnancy test.
- PID is a clinical diagnosis typically seen in young and sexually active women. It requires broad-spectrum antibiotics, given promptly to prevent infertility and other sequelae.
- Ovarian torsion is a surgical emergency that should be referred to an ED.
- Ovarian cysts are common and usually benign, but ovarian cancer should remain on the differential.
- Dysmenorrhea is best managed with NSAIDs and/or hormonal contraception. ■

Manuscript submitted November 25, 2025; accepted March 15, 2026.

References

1. National Center for Health Statistics. Emergency Department Visits in the United States, 2016–2022. Centers for Disease Control and Prevention. Accessed July 2025. https://www.cdc.gov/nchs/dhcs/ed-visits/index.htm
2. Jeffers K, Koyfman A, Long B. Updates in emergency medicine: Ectopic pregnancy. *Am J Emerg Med*. 2024;85:90-97. doi:10.1016/j.ajem.2024.09.005
3. Ferries-Rowe E, Corey E, Archer JS. Primary Dysmenorrhea: Diagnosis and Therapy. *Obstet Gynecol*. 2020;136(5):1047-1058. doi:10.1097/AOG.0000000000004096
4. American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Gynecology. ACOG Practice Bulletin No. 193: Tubal Ectopic Pregnancy. *Obstet Gynecol*. 2018;131(3):e91-e103. doi:10.1097/AOG.0000000000002560
5. Hendriks E, Rosenberg R, Prine L. Ectopic Pregnancy: Diagnosis and Management. *Am Fam Physician*. 2020;101(10):599-606.
6. Schreiber CA, Sonalkar S. Tubal Ectopic Pregnancy. *N Engl J Med*. 2025;392(8):798-805. doi:10.1056/NEJMcp2402787
7. Frock-Welnak DN, Tam J. Identification and Treatment of Acute Pelvic Inflammatory Disease and Associated Sequelae. *Obstet Gynecol Clin North Am*. 2022;49(3):551-579. doi:10.1016/j.ogc.2022.02.019
8. Kreisel K, Torrone E, Bernstein K, Hong J, Gorwitz R. Prevalence of pelvic inflammatory disease in sexually experienced women of reproductive age—United States, 2013–2014. *MMWR Morb Mortal Wkly Rep*. 2017;66(3):80-83. doi:10.15585/mmwr.mm660303
9. Curry A, Williams T, Penny ML. Pelvic Inflammatory Disease: Diagnosis, Management, and Prevention. *Am Fam Physician*. 2019;100(6):357-364.
10. Centers for Disease Control and Prevention. Pelvic inflammatory disease (PID) - STI treatment guidelines. www.cdc.gov. Published 2022. Accessed July 2025. https://www.cdc.gov/std/treatment-guidelines/pid.htm
11. Adnexal Torsion in Adolescents: ACOG Committee Opinion No, 783. *Obstet Gynecol*. 2019;134(2):e56-e63. doi:10.1097/AOG.0000000000003373
12. Bridwell RE, Koyfman A, Long B. High risk and low prevalence diseases: Ovarian torsion. *Am J Emerg Med*. 2022;56:145-150. doi:10.1016/j.ajem.2022.03.046
13. Farkas AH, Abumusa H, Rossiter B. Structural Gynecological Disease: Fibroids, Endometriosis, Ovarian Cysts. *Med Clin North Am*. 2023;107(2):317-328. doi:10.1016/j.mcna.2022.10.010
14. Elias KM, Guo J, Bast RC Jr. Early Detection of Ovarian Cancer. *Hematol Oncol Clin North Am*. 2018 Dec;32(6):903-914. doi: 10.1016/j.hoc.2018.07.003. Epub 2018 Sep 28. PMID: 30390764; PMCID: PMC6376972.
15. McKenna KA, Fogleman CD. Dysmenorrhea. *Am Fam Physician*. 2021;104(2):164-170.
16. As-Sanie S, Mackenzie SC, Morrison L, et al. Endometriosis: a review. *JAMA*. 2025;334(1):64-78. doi:10.1001/jama.2025.2975

Unified. AI-Driven. Patient-Centered.

TREAT MORE URGENT CARE PATIENTS

Attract, book, and re-engage more patients with increased online visibility, digital-first experiences, faster charting with AI Scribe, and always-on communication with Care Agent.

- Improve show rates and visit readiness
- Drive repeat visits through ongoing engagement
- Increase patient satisfaction with a seamless end-to-end experience
- Stay connected after care so more patients show up, pay, and return

100+
STAFF HOURS
SAVED WITH AUTOMATION

100K+
ANNUAL REVENUE
PER CLINIC

2.7
MORE VISITS
PER CLINIC PER DAY

See More Patients. Deliver Better Care. Optimize Revenue.

EXPLORE OUR PATIENT ENGAGEMENT

EXPERITY®
ExperityHealth.com | 815.544.7480

CME: This article is offered for AMA PRA Category 1 Credit.™
See CME Quiz Questions on page 9.

Urgent Care Evaluation and Management of De Quervain Tenosynovitis

Urgent Message: Patients presenting with radial wrist pain that is exacerbated by thumb and wrist motion may raise the suspicion for De Quervain tenosynovitis (DQT). Utilizing a clinically focused framework is important for the evaluation and management of DQT.

Jacob Welch OMS-3; William O'Neal MD

Citation: Welch J, O'Neal W. Urgent Care Evaluation and Management of De Quervain Tenosynovitis. *J Urgent Care Med.* 2026;20(8):23-28

Keywords: wrist pain; De Quervain tenosynovitis; Finkelstein test; Eichhoff test; thumb spica splint

Editor's Note: *The patient case scenario is hypothetical to enhance educational value.*

Abstract

De Quervain tenosynovitis (DQT) is a frequent cause of radial-sided wrist pain, resulting from tendinopathy of the first extensor compartment. DQT is associated with repetitive movements of the thumb and wrist, and is characterized by inflammation of the tendons within this compartment—the abductor pollicis longus and extensor pollicis brevis. This review provides a clinically focused framework for the urgent care provider on the evaluation and management of DQT, structured around common questions faced at the bedside. The pathophysiology is discussed, highlighting a modern understanding that includes both degenerative changes and a secondary inflammatory response.

Diagnosis is primarily clinical, based on a history of gradual-onset pain over the radial styloid, exacerbated by movement. The physical exam is notable for point tenderness and a positive provocative maneuver, such as the Finkelstein or Eichhoff tests. While imaging is not required for diagnosis, radiography is appropriate to rule out underlying bony pathology, such as osteoarthritis or fracture in the hand or wrist.

Urgent care management is centered on conservative, non-operative therapies. The most crucial components include comprehensive patient education on activity modification, immobilization with a thumb spica splint, and a course of oral or topical nonsteroidal anti-inflammatory drugs. The provider must also be able to differentiate DQT from "red flag" conditions (eg, scaphoid fracture, septic tenosynovitis) and common mimics (eg, Wartenberg syndrome). Patients with severe or refractory symptoms unresponsive to initial conservative

Questions for the Clinician at the Bedside

1. What historical clues point toward De Quervain tenosynovitis (DQT) over other causes of wrist pain?
2. How is the Finkelstein test properly performed, and what does it signify?
3. What are the key components of initial conservative management for DQT in the urgent care setting?
4. Which patients with radial wrist pain require imaging or immediate referral?

Author Affiliations: Jacob Welch, BS, medical student, University of Pikeville, Pikeville, Kentucky. **William O'Neal, MD,** Adena Health System, Ohio.
Authors have no relevant financial relationships with any ineligible companies.

management warrant referral for specialty evaluation, which may include corticosteroid injections or surgical consultation.

Clinical Scenario

A 21-year-old female college senior presented to urgent care. She said she had been typing a term paper and practicing for the spring softball intramural league. She reported pain on the radial aspect of her right wrist, which she described as dull and throbbing. The pain began 4 days prior and was worse with range of motion. She denied fever, numbness, or injury to the hand or wrist.

Her vital signs and general appearance were normal. She was breathing comfortably, and the right wrist was normal in appearance. There was tenderness to palpation over the radial aspect of the distal forearm, which was worse with range of motion, particularly ulnar deviation of the wrist. There was no erythema or swelling. Her neurovascular status was intact with 2+ radial pulse, and sensation was intact in the distribution of the radial, ulnar, and median nerves.

Background and Epidemiology

De Quervain tenosynovitis (DQT) is a common cause of wrist pain with clear demographic patterns. The condition affects women more often than men, with an incidence rate of 2.8 cases per 1,000 person-years, compared to just 0.6 in men.[1] The peak age of onset is typically between 40 and 59 years.[2] It is famously linked to pregnancy and the postpartum period, with a cumulative incidence of 2.1% in pregnant women.[3] Rheumatoid arthritis is also a significant risk factor; tenosynovitis is a known feature of rheumatoid arthritis, with one study showing its presence in 47.7% of patients with the disease.[4]

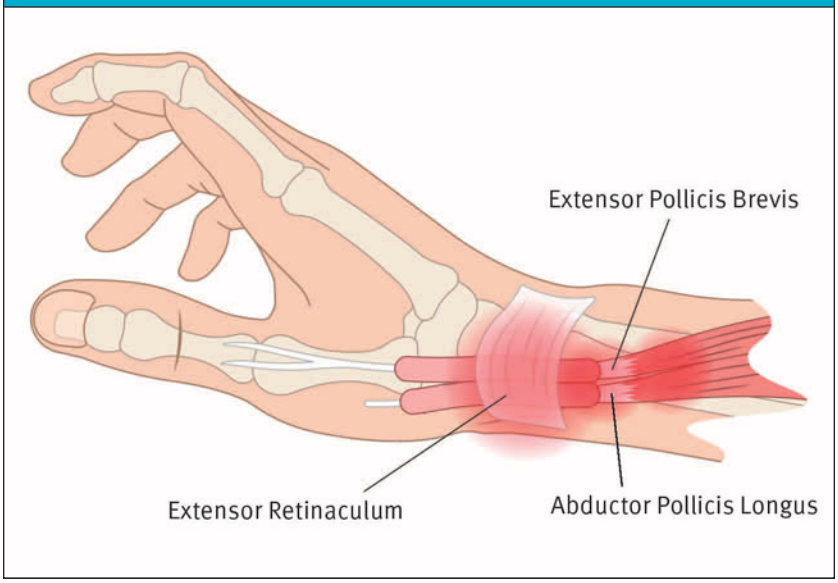
The condition is strongly associated with activities involving repetitive thumb and wrist motion, including certain sports. Increased training time in professional volleyball players has been shown to increase the likelihood of the disease,[5] and it is also identified in amateur tennis players, particularly those using a grip that promotes radial-sided wrist movements.[6] DQT has also been linked to frequent texting,[7] and a survey of teenagers who play mobile games found a positive Finkelstein test in 49% of participants, with the risk increasing with prolonged play time and frequent changes in wrist position.[8] Despite popular belief, there is no association between the disease and manual labor.[9]

Relevant Anatomy

DQT involves the first extensor compartment of the wrist, a fibro-osseous tunnel situated on the radial side of the wrist, directly over the radial styloid process. Two key tendons responsible for thumb movement travel through this sheath: the abductor pollicis longus (APL) and the extensor pollicis brevis (EPB).[10] (**Figure 1**)

Anatomical variations within this compartment are common and have significant clinical implications, particularly regarding the failure of treatment. Septations within the compartment are a key anatomical variation contributing to DQT. A complete or partial septum dividing the compartment is found in 40%–60% of cases.[11,12] The presence of a septum isolating the EPB tendon in its own subcompartment may be a primary reason for the failure of corticosteroid injections if the medication fails to reach both subcompartments.[11,12] Multiple variations of tendons of the APL, found in all specimens in one cadaveric study, are also considered clinically relevant to the development of DQT.[13]

Figure 1. First Extensor Compartment Anatomy in De Quervain Tenosynovitis



Pathophysiology

Historically, DQT has been considered a noninflammatory, degenerative process, making the "-itis" suffix

in "tenosynovitis" a misnomer.[14,15] Histopathological studies have consistently characterized the condition to be without inflammation, but with thickening of the EPB and APL tendon sheaths and the accumulation of mucopolysaccharide, an indicator of myxoid degeneration.[15] These changes were considered pathognomonic, resulting from intrinsic degenerative mechanisms.[14,15] This thickening of the EPB and APL tendons or the extensor retinaculum itself causes impaired gliding of the tendons within the extensor retinaculum, resulting in mechanical impairment.

More recent research has provided direct evidence that an inflammatory response is present in DQT. A study found that inflammatory markers, including neutrophil elastase and cyclooxygenase, were present and increased with the severity of collagen disorganization. The study also identified macrophage infiltration in more advanced stages of the disease, providing clear evidence for the role of inflammatory cells and factors in its pathophysiology.[16] This suggests that the pathology of DQT is likely a combination of both degenerative changes and a secondary inflammatory response, which helps explain the clinical efficacy of anti-inflammatory treatments.

History

A thorough clinical history is essential, as the diagnosis of DQT is based primarily on patient presentation.[17] The onset of symptoms is typically gradual over weeks to months and is not associated with a single acute traumatic event.[18]

Pain is the most prominent symptom, localized to the radial side of the wrist over the styloid process. Painful sensation may radiate proximally into the forearm or distally into the thumb. The pain is constant but is exacerbated by specific movements, such as grasping objects, abducting the thumb, and ulnar deviation of the wrist. It is crucial to inquire about aggravating activities, which often involve repetitive or unaccustomed hand use. Common examples include lifting a child ("mommy's thumb"), wringing out clothes, using scissors, or engaging in hobbies like golf. [17,18] The pain can be severe enough to disturb sleep or render the hand immobile.[18] While pain is the primary complaint, patients may also report stiffness or swelling. Patients may also report a sensation of "popping" or "creaking." Typically, symptoms are relieved with rest, icing, or immobilization.[17]

Physical Examination

The diagnosis of DQT is primarily clinical,[17,19] established via patient history and physical examination.[20] The cardinal finding is localized tenderness upon palpation of the first extensor compartment at the radial styloid.[20] Visual inspection may also reveal localized swelling or fullness over the compartment, though the physical appearance is often normal.[20]

The diagnosis is supported by provocative maneuvers, though significant confusion persists in the literature regarding the "Finkelstein test."[21] The maneuver most commonly employed in clinical practice is the Eichhoff test, wherein the patient flexes the thumb into their palm and closes the fingers over it, after which the examiner passively ulnar-deviates the wrist.[19,21] This test is frequently, and incorrectly, referred to as the Finkelstein test.[19] The true Finkelstein test, as originally described in 1930,[22] involves the examiner grasping the patient's thumb and applying sharp ulnar abduction.[19,22] This original maneuver is noted to be sensitive but less specific as described in the most recent European HANDGUIDE consensus from 2014, as it may elicit pain in asymptomatic individuals.[19] More recent studies from 2018, however, have shown that the opposite is true: the Finkelstein test produces fewer false positives than the Eichhoff test.[23]

To improve diagnostic precision, the wrist hyperflexion and abduction of the thumb (WHAT) test has been proposed as a more precise tool.[21] A prospective study that used sonography as the diagnostic standard found the WHAT test demonstrated a greater sensitivity (0.99) and an improved positive predictive value (0.95) when compared to the Eichhoff test.[21]

The physical examination must also exclude common pathologies with similar presentations.[19] This differential diagnosis includes carpometacarpal osteoarthritis, which can be assessed using a "grind test" (axial compression and rotation). Other pathologies include Wartenberg syndrome (superficial radial nerve irritation), assessed by checking for a Hoffmann-Tinel sign (percussion over the nerve eliciting radiating paresthesia), and intersection syndrome, which presents as pain 4-8 cm proximal to the radial styloid.[19]

Diagnostic Imaging

While the diagnosis is clinical, imaging serves to confirm clinical suspicion and, more importantly, to rule out other underlying pathologies.[20]

Radiography

According to the American College of Radiology (ACR) Appropriateness Criteria, initial radiography of the wrist is "usually appropriate" for the evaluation of chronic wrist pain.[24] Radiographs are effective in assessing for

bony pathologies, such as a scaphoid fracture, radial styloid fracture, or osteoarthritis of the carpometacarpal joint.[19,25]

Although Finkelstein's original paper reported radiographs as "uniformly negative,"[22] subsequent evidence contradicts this. A study demonstrated that a focal radial styloid abnormality is a significant radiographic indicator of DQT.[25] These radiographic findings may include cortical erosion, sclerosis, or periosteal bone apposition. These osseous changes are hypothesized to be a reactive process secondary to the adjacent, thickened, and abnormal tendon sheath.[25]

Advanced Modalities

The ACR considers that ultrasound (US) "may be appropriate" for the initial evaluation of chronic wrist pain.[24] Both sonography and magnetic resonance imaging (MRI) can demonstrate findings consistent with DQT, including tendon sheath thickening and surrounding soft-tissue edema.[25]

If initial radiographs are negative and diagnostic uncertainty persists or other pathology is suspected, the ACR lists MRI of the wrist without IV contrast as "usually appropriate" as the next imaging study.[24]

Laboratory Testing

Laboratory tests are not indicated unless the clinical picture is atypical. If significant systemic inflammation or polyarthralgia is present, referral for rheumatoid testing may be warranted to investigate for an underlying inflammatory arthritis.[4]

Urgent Care Management

The management of DQT in the urgent care setting is centered on conservative, non-operative therapies.[19] The primary goals are to reduce pain, decrease inflammation of the tendon sheath, and modify activities to prevent recurrence.[19] Treatment is typically initiated in a stepwise fashion, beginning with the least invasive options.[19]

Non-Pharmacological

Patient Education and Activity Modification

Providing adequate patient education is the most crucial step in treating DQT.[19] Conservative management hinges on the patient's understanding of the nature of the injury. The European HANDGUIDE consensus emphasizes that patients should always receive instructions on activity modification, such as avoiding repetitive thumb and wrist movements and avoiding movements that cause pain.[19]

Splinting

Immobilization with a splint is a foundational component of conservative management. The European HANDGUIDE consensus recommends a "long lower-arm-based splint" that immobilizes the wrist, which can either include or exclude the interphalangeal (IP) joint of the thumb.[19] This is typically worn for 3 to 8 weeks. If a patient does not comply with splinting and activity modification, the underlying mechanical friction will continue, leading to treatment failure, frequent return visits, and progression to a chronic condition requiring more invasive intervention.[19]

Pharmacological

Nonsteroidal Anti-Inflammatory Drugs

Oral nonsteroidal anti-inflammatory drugs (NSAIDs) are commonly used as a first-line agent, particularly for mild symptoms. A study on conservative management found that for patients with minimal symptoms, splinting and NSAIDs provided adequate relief.[26] For patients with minimal symptoms (acute and mild symptoms), splinting combined with oral NSAIDs has been shown to be an effective initial treatment.[19,26] However, this combination was notably less effective for patients with moderate to severe symptoms.[26]

Glucocorticoids

Although not routinely performed in the urgent care setting, local corticosteroid injection (CSI) is a highly effective primary treatment for DQT. A 2009 randomized controlled trial demonstrated that 1 or 2 local injections of triamcinolone acetonide (TCA) provided significant short-term improvement in symptoms compared to a placebo injection, with a number needed to treat of 2.[27] This beneficial effect was maintained in responders at a 12-month follow-up.[27] Experts recommend using intermediate-acting corticosteroids, such as methylprednisolone or triamcinolone, mixed with a local anesthetic.[19,28]

The role of splinting as an adjunct to CSI is debated in the literature. A 2014 study found that combining CSI with a thumb spica cast resulted in a significantly higher treatment success rate (93%) compared to CSI alone (69%).[28] However, a 2020 prospective randomized trial found that immobilization following CSI did not contribute to improved patient outcomes and noted that CSI alone was superior for the resolution of wrist pain.[29]

Providers must be cautious regarding the rare but serious complication of a tendon rupture following corticosteroid injection. A recent review of tendon ruptures after local steroid injection for stenosing tenosynovitis

of the hand identified that this complication is frequently associated with the use of triamcinolone acetonide at doses of 10 mg or greater.[30] While the risk is often linked to repeated injections, instances of rupture have been documented after as few as 1 or 2 applications.[30]

Referral and Follow-up

Sports Medicine

For patients whose symptoms are refractory to initial conservative measures—specifically splinting, activity modification, and NSAIDs—referral to a non-operative sports medicine specialist for further evaluation and possible corticosteroid injection is the most appropriate next step.[19]

Orthopedic Surgery

Referral to an orthopedic hand surgeon is indicated for patients whose symptoms are refractory to conservative management, which typically involves failing 1 or 2 corticosteroid injections.[19] Surgical intervention is also a primary consideration for patients presenting with severe, chronic symptoms. Surgical management has a high rate of success. A retrospective study found a surgical cure rate of 91%, with 88% of patients reporting full satisfaction with the outcome.[31]

Next Level Urgent Care Pearls

- **Know the difference between the Finkelstein and Eichhoff tests.** The maneuver most taught—making a fist over the thumb followed by ulnar deviation—is the Eichhoff test.
- **Upgrade your diagnostic testing.** Consider using the wrist hyperflexion and abduction of the thumb (WHAT) test. Recent studies suggest the WHAT test demonstrates greater sensitivity and an improved positive predictive value compared to the traditional Eichhoff test.
- **Consider anatomic variations in refractory cases.** A complete or partial septum dividing the first extensor compartment is found in 40% to 60% of cases. If a patient fails conservative management or injection therapy, it may be due to a septation preventing medication from reaching the subcompartment.
- **Screen for texting thumb.** Modern usage of mobile devices is a significant risk factor. Ensure patient education includes modification of how to hold and use handheld devices.
- **Consider mimics such as Wartenberg syndrome.** Prominent numbness, tingling, or paresthesia over the dorsum of the hand and thumb should raise suspicion for Wartenberg syndrome, an entrapment of the superficial branch of the radial nerve.[19,32] This condition can mimic DQT or, importantly, coexist with it.[33,34]

Red Flags and Legal Pitfalls

- **Delaying or failing to initiate effective conservative treatment**. DQT can progress from an acute, manageable condition to a chronic state.[19] As symptoms become more severe and persistent (ie, lasting over 3-6 months), patients are less likely to respond to simple measures and often necessitate corticosteroid injections or surgical referral.[19] The condition should not be dismissed as minor, as it can be associated with significant disability, impairing a patient's work and daily activities.[35]
- **Failing to consider a differential diagnosis in the context of trauma**. A history of a fall on an outstretched hand or a direct blow to the wrist changes the clinical picture. Radial-sided wrist pain, especially with tenderness in the "anatomic snuffbox," must be evaluated to rule out a scaphoid fracture.[36]
- **Confusing DQT with osteoarthritis of the thumb carpometacarpal (CMC) joint.**[19,35] The conditions can coexist, but a positive "grind test" eliciting pain or crepitus upon axial loading and rotation of the thumb metacarpal points toward CMC arthritis.[37] Misdiagnosis is a key reason for the persistence of symptoms; in analyses of failed De Quervain surgery, a notable number of patients are found to have underlying CMC osteoarthritis that was the true source of their pain.[38]
- **The provider must be alert for signs of septic tenosynovitis**. Clinical features not typical of De Quervain, such as significant erythema, warmth, fever, or severe, unrelenting pain at rest, warrant an urgent workup for infection.

Clinical Scenario Conclusion

The patient's history of repetitive wrist and thumb motion from typing and softball, combined with her physical exam findings, was highly suggestive of DQT. She was diagnosed clinically in urgent care. The patient was provided with a forearm-based thumb spica splint and educated on activity modification, including taking breaks from typing and adjusting her grip during athletic activities. A course of over-the-counter naproxen was recommended for pain and inflammation. She was given instructions to follow up with her primary care physician or student health services if her symptoms failed to improve after 2-3 weeks of conservative treatment.

Takeaway Points

- DQT affects the APL and EPB tendons in the first extensor wrist compartment.
- Suspect DQT in patients with radial wrist pain exacerbated by thumb and wrist motion, especially new parents or those with jobs requiring repetitive hand movements.
- The diagnosis is clinical; positive Finkelstein, Eichhoff, or WHAT tests combined with point tenderness over the radial styloid is highly suggestive.
- Initial UC management is conservative: immobilize with a thumb spica splint, advise NSAIDs and ice, and educate on avoiding painful activities.
- Imaging is only necessary to rule out a bony pathology; refer patients who fail conservative treatment for specialty evaluation and possible corticosteroid injection. ■

Manuscript submitted December 16, 2025; accepted March 11, 2026.

References

1. Wolf JM, Sturdivant RX, Owens BD. Incidence of de Quervain's tenosynovitis in a young, active population. *J Hand Surg Am.* 2009;34(1):112-115. doi:10.1016/j.jhsa.2008.08.020
2. Hassan K, Sohn A, Shi L, Lee M, Wolf JM. De Quervain Tenosynovitis: An Evaluation of the Epidemiology and Utility of Multiple Injections Using a National Database. *J Hand Surg Am.* 2022;47(3):284.e1-284.e6. doi:10.1016/j.jhsa.2021.04.018
3. Bae KJ, Baek GH, Lee Y, Lee J, Jo YG. Incidence and Risk Factors for Pregnancy-Related de Quervain's Tenosynovitis in South Korea: A Population-Based Epidemiologic Study. *Clin Orthop Surg.* 2023;15(1):145-152. doi:10.4055/cios22099
4. Rowbotham EL, Freeston JE, Emery P, Grainger AJ. The prevalence of tenosynovitis of the interosseous tendons of the hand in patients with rheumatoid arthritis. *Eur Radiol.* 2016;26(2):444-450. doi:10.1007/s00330-015-3859-0
5. Rossi C, Cellocco P, Margaritondo E, Bizzarri F, Costanzo G. De Quervain disease in volleyball players. *Am J Sports Med.* 2005;33(3):424-427. doi:10.1177/0363546504268134
6. Tagliafico AS, Ameri P, Michaud J, Derchi LE, Sormani MP, Martinoli C. Wrist injuries in nonprofessional tennis players: relationships with different grips. *Am J Sports Med.* 2009;37(4):760-767. doi:10.1177/0363546508328112
7. Ali M, Asim M, Danish SH, Ahmad F, Iqbal A, Hasan SD. Frequency of De Quervain's tenosynovitis and its association with SMS texting. *Muscles Ligaments Tendons J.* 2014;4(1):74-78. Published 2014 May 8.
8. Ma T, Song L, Ning S, Wang H, Zhang G, Wu Z. Relationship between the incidence of de Quervain's disease among teenagers and mobile gaming. *Int Orthop.* 2019;43(11):2587-2592. doi:10.1007/s00264-019-04389-9
9. Stahl S, Vida D, Meisner C, Stahl AS, Schaller HE, Held M. Work related etiology of de Quervain's tenosynovitis: a case-control study with prospectively collected data. *BMC Musculoskelet Disord.* 2015;16(1):126. doi:10.1186/s12891-015-0579-1
10. Wehbé MA. Anatomy of the extensor mechanism of the hand and wrist. *Hand Clin.* 1995;11(3):361-366.
11. Bahm J, Szabo Z, Foucher G. The anatomy of de Quervain's disease. A study of operative findings. *Int Orthop.* 1995;19(4):209-211. doi:10.1007/BF00185223.
12. Jackson WT, Viegas SF, Coon TM, Stimpson KD, Frogameni AD, Simpson JM. Anatomical variations in the first extensor compartment of the wrist. A clinical and anatomical study. *J Bone Joint Surg Am.* 1986;68(6):923-926.
13. Thwin SS, Fazlin F, Than M. Multiple variations of the tendons of the anatomical snuffbox. *Singapore Med J.* 2014;55(1):37-40. doi:10.11622/smedj.2013216
14. Kay NR. De Quervain's disease. Changing pathology or changing perception? *J Hand Surg Br.* 2000;25(1):65-69. doi:10.1054/jhsb.1999.0277
15. Clarke MT, Lyall HA, Grant JW, Matthewson MH. The histopathology of de Quervain's disease. *J Hand Surg Br.* 1998;23(6):732-734. doi:10.1016/s0266-7681(98)80085-5
16. Kuo YL, Hsu CC, Kuo LC, et al. Inflammation is present in de Quervain Disease—correlation study between biochemical and histopathological evaluation. *Ann Plast Surg.* 2015;74 Suppl 2:S146-S151. doi:10.1097/SAP.0000000000000459
17. Adams JE, Habbu R. Tendinopathies of the Hand and Wrist. *J Am Acad Orthop Surg.* 2015;23(12):741-750. doi:10.5435/JAAOS-D-14-00216
18. Moore JS. De Quervain's tenosynovitis. Stenosing tenosynovitis of the first dorsal compartment. *J Occup Environ Med.* 1997;39(10):990-1002. doi:10.1097/00043764-199710000-00011
19. Huisstede BM, Coert JH, Fridén J, Hoogvliet P; European HANDGUIDE Group. Consensus on a multidisciplinary treatment guideline for de Quervain disease: results from the European HANDGUIDE study. *Phys Ther.* 2014;94(8):1095-1110. doi:10.2522/ptj.20130069
20. Ilyas AM, Ast M, Schaffer AA, Thoder J. De quervain tenosynovitis of the wrist. *J Am Acad Orthop Surg.* 2007;15(12):757-764. doi:10.5435/00124635-200712000-00009
21. Goubau JF, Goubau L, Van Tongel A, Van Hoonacker P, Kerckhove D, Berghs B. The wrist hyperflexion and abduction of the thumb (WHAT) test: a more specific and sensitive test to diagnose de Quervain tenosynovitis than the Eichhoff's Test. *J Hand Surg Eur Vol.* 2014;39(3):286-292. doi:10.1177/1753193412475043
22. Finkelstein H. Stenosing tendovaginitis at the radial styloid process. *J Bone Joint Surg.* 1930;12(3):509-540.
23. Wu F, Rajpura A, Sandher D. Finkelstein's Test Is Superior to Eichhoff's Test in the Investigation of de Quervain's Disease. *J Hand Microsurg.* 2018;10(2):116-118. doi:10.1055/s-0038-1626690.
24. Stensby JD, Fox MG, Nacey N, Blankenbaker DG, Frick MA, Jawetz ST, Raizman NM, Said N, Stephens LA, Subhas N, Walker EA, Wright CL, Chang EY; Expert Panel on Musculoskeletal Imaging. ACR Appropriateness Criteria chronic hand and wrist pain: 2023 update. *J Am Coll Radiol.* 2024;21(6):S65-S78.
25. Chien AJ, Jacobson JA, Martel W, Kabeto MU, Marcantonio DR. Focal radial styloid abnormality as a manifestation of de Quervain tenosynovitis. *AJR Am J Roentgenol.* 2001;177(6):1383-1386. doi:10.2214/ajr.177.6.1771383
26. Lane LB, Boretz RS, Stuchin SA. Treatment of de Quervain's disease:role of conservative management. *J Hand Surg Br.* 2001;26(3):258-260. doi:10.1054/jhsb.2001.0568
27. Peters-Veluthamaningal C, Winters JC, Groenier KH, Meyboom-DeJong B. Randomised controlled trial of local corticosteroid injections for de Quervain's tenosynovitis in general practice. *BMC Musculoskelet Disord.* 2009;10:131. doi:10.1186/1471-2474-10-131
28. Mardani-Kivi M, Karimi Mobarakeh M, Bahrami F, Hashemi-Motlagh K, Saheb-Ekhtiari K, Akhoondzadeh N. Corticosteroid injection with or without thumb spica cast for de Quervain tenosynovitis. *J Hand Surg Am.* 2014;39(1):37-41. doi:10.1016/j.jhsa.2013.10.013
29. Ippolito JA, Hauser S, Patel J, Vosbikian M, Ahmed I. Nonsurgical Treatment of De Quervain Tenosynovitis: A Prospective Randomized Trial. *Hand* (N Y). 2020;15(2):215-219. doi:10.1177/1558944718791187
30. Inomori Y, Shimura H, Wakabayashi Y, Fujita K, Nimura A. Tendon rupture after local steroid injection for stenosing tenosynovitis of hand: A report of three cases and literature review. *JOS Case Reports*. 2023;2(2):19-22. doi:10.1016/j.joscr.2023.02.001
31. Ta KT, Eidelman D, Thomson JG. Patient satisfaction and outcomes of surgery for de Quervain's tenosynovitis. *J Hand Surg Am.* 1999;24(5):1071-1077. doi:10.1053/jhsu.1999.1071
32. Kuschner SH, Berihun H. Robert Wartenberg Syndrome and Sign: A Review Article. *Open Orthop J.* 2021;15:13-16. doi: 10.2174/1874325002115010013
33. Lanzetta M, Foucher G. Association of Wartenberg's syndrome and De Quervain's disease: a series of 26 cases. *Plast Reconstr Surg.* 1995;96(2):408-412. doi:10.1097/00006534-199508000-00023
34. Siddiq MAB. de Quervain's Tenosynovitis with Accessory Abductor Pollicis Longus Tendon and 'Wartenberg's syndrome' - A Case Report. *Curr Rheumatol Rev.* 2023;19(2):230-234. doi:10.2174/1573397118666220920095156
35. Currie KB, Tadisina KK, Mackinnon SE. Common Hand Conditions: A Review. *JAMA.* 2022;327(24):2434-2445. doi:10.1001/jama.2022.8481
36. Clementson M, Björkman A, Thomsen NOB. Acute scaphoid fractures: guidelines for diagnosis and treatment. *EFORT Open Rev.* 2020;5(2):96-103. Published 2020 Feb 26. doi:10.1302/2058-5241.5.190025
37. Merritt MM, Roddey TS, Costello C, Olson S. Diagnostic value of clinical grind test for carpometacarpal osteoarthritis of the thumb. *J Hand Ther.* 2010;23(3):261-268. doi:10.1016/j.jht.2010.02.001
38. Urbán F, Bábás G, Czinke Z, Rimaszèki Z, Bajdik B. Failure of Surgical Treatment in the De Quervain Tenosynovitis: What Is the Reason? What Is the Reason? *HAND.* 2016;11(1_suppl):102S-103S. doi:10.1177/1558944716605559gr

CME CONTENT

DELIVERED

JUCM CME Subscription

- Includes 11 mailed copies of the Journal, each containing 3 CME articles
- ACCME accredited through Master Clinicians
- 33 articles available annually, each providing up to 1 *AMA PRA Category 1 Credits*™
- Individual and bulk corporate subscriptions available

Begin your journey or sharpen your skills while earning your CME credits with IUCM — the proven leader in practical mastery for urgent care professionals.

IUCM®
INSTITUTE OF URGENT CARE MEDICINE

LEARN MORE

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

MASTER CLINICIANS
THE ART OF MEDICINE

844-814-9135
info@urgentcarecme.com

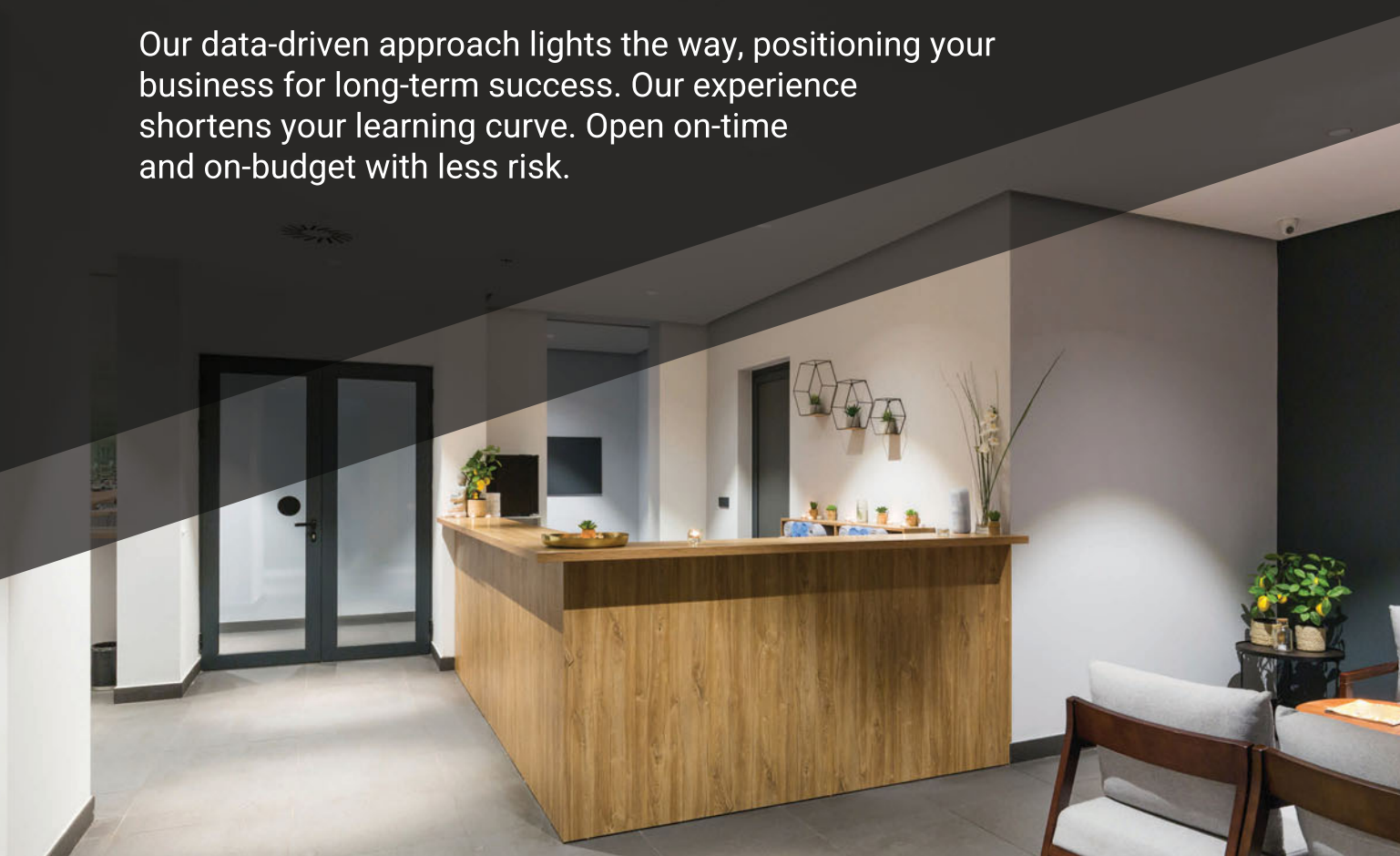
www.masterclinicians.net/courses/jucm-print-subscription

Urgent Care Consultants

If you had started a year ago, you'd be open now...

Starting an urgent care? Illuminate your path to success with our 20+ years of expertise in developing and growing hundreds of urgent care centers nationwide.

Our data-driven approach lights the way, positioning your business for long-term success. Our experience shortens your learning curve. Open on-time and on-budget with less risk.



To learn how to get started, schedule a discovery call today!

UrgentCareConsultants.com @ info@urgentcareconsultants.com

How Off-Duty Statements Create On-Duty Liability

Urgent Message: There is effectively no right to "free speech" in a private employer-employee relationship. That means private healthcare employers have the authority to terminate staff whose off-duty statements violate professional ethics or harm the organization's reputation.

Alan A. Ayers, MBA, MAcc

Citation: Ayers AA. How Off-Duty Statements Create On-Duty Liability. *J Urgent Care Med.* 2026;20(8):31-33

Keywords: free speech; social media; healthcare liability; malpractice risk; employment law; professional ethics; reputational risk; risk management

In today's polarized political climate, the line between private citizen and public professional hasn't vanished, but social media has made it dangerously easy to cross—often without a second thought regarding the professional consequences.

Increasingly, healthcare workers are voicing inflammatory opinions online—sometimes even while wearing their scrubs. But what happens when a worker's off-duty digital commentary contradicts their on-duty oath? Specifically, when a licensed professional makes public pronouncements that alienate patients, how does this create a professional liability?[1,2,3]

The Oath to Do No Harm

At its core, clinical licensure requires compassion for all patients. When a provider publicly wishes harm upon people—regardless of the political context—it fundamentally undermines their fitness to offer "care."

Moreover, clinicians are held to a legal standard of care regardless of a patient's beliefs or standing. When a provider's expressed biases suggest they might deviate from this standard, employers must act. For instance, in 2020, the Ohio State Medical Board permanently revoked the license of a physician who was terminated from 2 residency programs after old antisemitic tweets surfaced—including a post in which she threatened to give Jewish patients the wrong medications.[4,5]

Similarly, in January 2026, a labor and delivery nurse at Baptist Health Boca Raton (Florida) Regional Hospital was terminated after a TikTok video appeared to show her making graphic, violent comments about White House Press Secretary Karoline Leavitt, who had recently announced her pregnancy.[6]

These are not just public relations problems. They

Author affiliations: Alan A. Ayers, MBA, MAcc, is President of Urgent Care Consultants and is Senior Editor of *The Journal of Urgent Care Medicine.*

are serious liability risks. What message does it send to the community if a healthcare employer retains staff who have wished harm upon patients, even in jest? Worse, consider the legal exposure: If an adverse outcome were to occur with a patient from that targeted group, would any jury believe it was unintentional?

"A private employer has the right to restrict a private employee's use of social media and to discipline the employee when he or she makes statements that violate the policy, especially when the statements may put the employer in a bad light."

Federal Law Protects Private Employers

A private employer has the right to restrict a private employee's use of social media and to discipline the employee when he or she makes statements that violate the policy, especially when the statements may put the employer in a bad light. Nothing "limits a private employer's ability to discipline employees for expression."[7]

Courts have noted that while the First Amendment of the Constitution protects individuals from government restraint on their freedom of speech, it does not restrict private entities, such as employers, from imposing limits upon an employee's public statements.[8] It's not uncommon for employers to place restrictions on employee speech. However, courts have established that a state cannot condition public employment on a basis that infringes the employee's constitutionally protected interest in freedom of expression.[9]

The primary distinction is public vs private employment. Many healthcare professionals mistakenly believe that because their employer accepts federal funds (like Medicare and Medicaid) or operates under strict state licensure, the organization is effectively a state actor bound by the First Amendment. However, courts have firmly rejected this view, establishing that even heavy government involvement does not transform a private business into a public one.

Note that the mere fact that a business is subject to state regulation does not by itself convert its action into that of the state for purposes of the Fourteenth Amendment. In *Jackson v. Metropolitan Edison Co*,[10] the Supreme Court stated that the "fact that a business is subject to state regulation does not by itself convert its action into that of the State."[10] In that case, the court held that a heavily regulated, privately owned utility was not a state actor.[10] The court explained that the "mere existence" of a "regulatory scheme" did not render the utility a state actor.[10] Nor did it matter whether the state had authorized the utility to provide electric service to the community, or whether the utility was the only entity providing electric service to much of that community.[11]

Malpractice Risk: Weaponizing the Joke

While offensive speech alone typically does not meet the strict legal definition of medical malpractice—which requires a deviation from the standard of care resulting in physical injury—it creates a serious vulnerability in the event of an adverse outcome.

Medical errors and adverse events are an unfortunate reality of clinical practice. In a standard malpractice defense, the argument is often that the provider did their best but a known complication occurred. However, if that provider has a history of inflammatory public statements—even if made "in jest"—that defense becomes weak.

Imagine a scenario where a patient suffers a complication, and the plaintiff's attorney introduces a social media post where the provider "joked" about harming that specific demographic of patients. At that point, a jury may not be looking at a clinical error. They may be looking at potential intent or malice. No amount of clinical brilliance can explain away a prior statement of hostility toward a patient group. What might have been a defensible medical judgment becomes an indefensible breach of trust, exposing the practice to possible liability and punitive damages.

From Negligence to Criminal Intent

Beyond the financial impacts of a malpractice verdict, criminal liability is a far more troubling prospect for the clinician.

In a standard medical error case, the legal system generally assumes the provider intended to help but failed due to negligence. However, if a provider has previously expressed a desire to harm a specific group of patients—even if they claim it was "in jest"—and then a patient in that group suffers an injury, that presumption of good faith vanishes.

Prosecutors can utilize those public statements as evidence of *mens rea* (criminal intent). As a result, an in-

correct dosage or a missed diagnosis is no longer viewed as an accident; it is viewed as the execution of a threat. For example, if a physician tweets about giving the "wrong meds" to a specific group and subsequently commits a medication error affecting a patient in that group, the physician could face charges of criminal battery or even manslaughter. The speech may contribute to a case being interpreted as a targeted criminal act.

Reputational Risk

Notwithstanding the seemingly limited risks of malpractice and criminal liability, the reputational risk to a healthcare organization is very real. Reputational risk is the result of negative public opinion and publicity concerning business practices. It can be a significant threat to a company's standing.[12] These risks can damage credibility, public image, market value, and stakeholder relationships.[13]

For example, consider a major healthcare system that relies on significant philanthropy from the Jewish community. The fear created by a provider's threats of physical harm—or even the perception of the institution's tolerance of antisemitism—has the potential to cost millions in lost services, revenue, and withdrawn financial support. Patients and donors alike will not sustain a relationship with an organization where they do not feel safe or welcome.

Misinformation and deceptive or incorrect interpretations of health information—both prevalent in social media—negatively impact public perception of healthcare. As such, they may dissuade people from seeking the preventive care and treatments they need.[14] Thus, assessing and managing reputational risk is non-negotiable. Private employers must recognize that when a provider's speech violates ethical or licensing standards, it is no longer a personal matter—it is a fundamental performance failure that justifies, and often necessitates, disciplinary action to protect the institution's integrity.[15]

Conclusion

While the First Amendment restricts the government, it does not strip private employers of the right to protect their reputations and their patients. Legal precedent confirms that nothing limits a private employer's ability to discipline employees for expression that violates company policy.

The bottom line is simple: A medical license is a privilege that places the preservation of patient trust above a clinician's impulse to post. If a clinician cannot distinguish between these elements, they may no longer be suitable for the profession. ■

"Private employers must recognize that when a provider's speech violates ethical or licensing standards, it is no longer a personal matter—it is a fundamental performance failure that justifies, and often necessitates, disciplinary action to protect the institution's integrity."

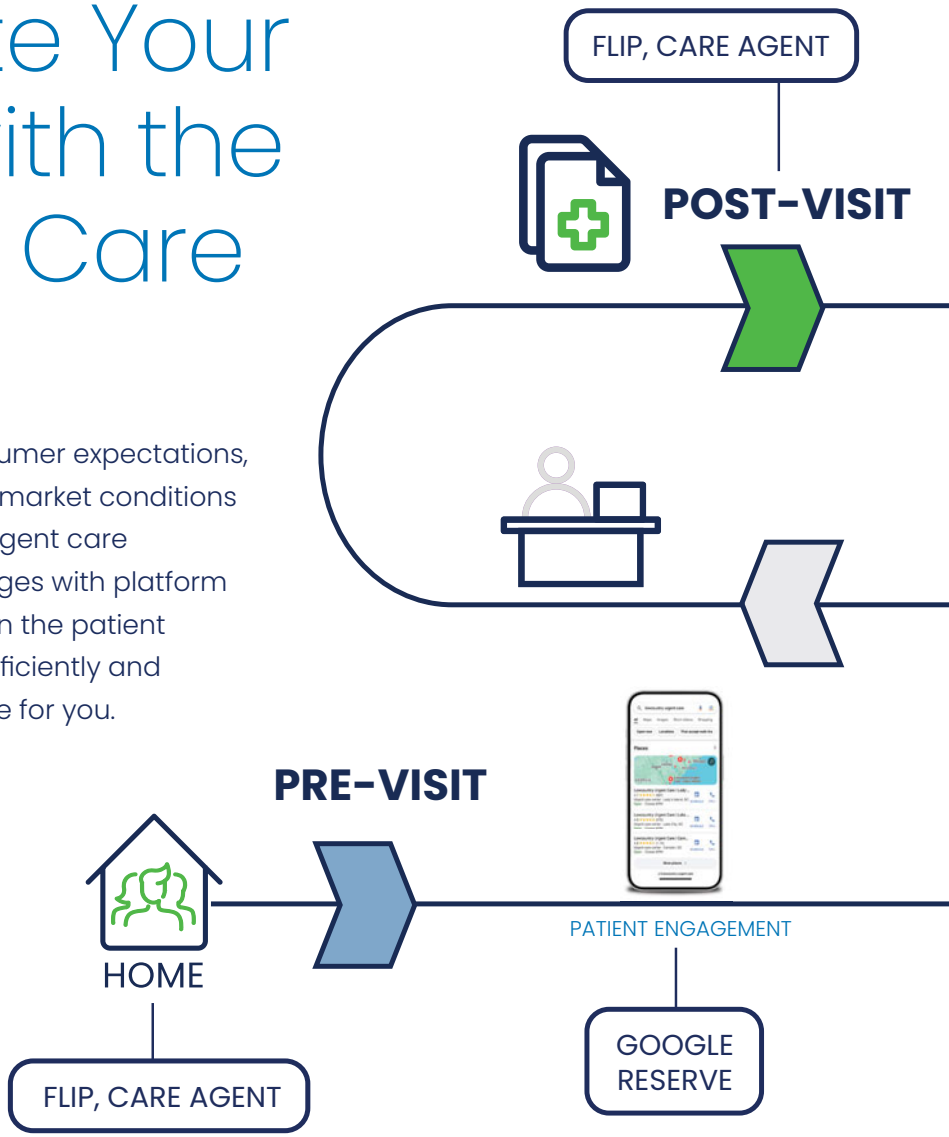
References

1. Roberts R. Democracy at risk: the public employee freedom of speech crisis. *Adm Soc.* 2023;55:613-631.
2. Sandefur C. Protecting free speech in medicine. Cato Institute. Summer 2017. https://www.cato.org/regulation/summer-2017/protecting-free-speech-medicine
3. Weiner S. Is spreading medical misinformation a physician's free speech right? It's complicated. AAMC. December 26, 2023. https://www.aamc.org/news/spreading-medical-misinformation-physician-s-free-speech-right-it-s-complicated
4. Ohio doctor who boasted she would give Jews the wrong medications loses license. *Times of Israel.* August 25, 2020. https://www.timesofisrael.com/ohio-doctor-who-boasted-she-would-give-jews-the-wrong-medications-loses-license/.
5. Schweikart SJ. Constitutional regulation of speech (and false beliefs) in health care. *AMA J Ethics.* 2018;20(11):E1041-1048. doi: 10.1001/amajethics.2018.1041.
6. BenteFri K. Boca Raton nurse fired after graphic TikTok targeting Karoline Leavitt. CBS 12 News. January 23, 2026. https://cbs12.com/news/local/boca-raton-nurse-fired-after-graphic-tiktok-targeting-pregnant-white-house-official-karoline-leavitt-white-house-press-secretary-karoline-leavitt-baptist-health-boca-raton-regional-hospital-january-23-2026
7. *Barnett v Aultman Hosp.*, 2012 U.S. Dist. LEXIS 156073, ¶ 18 (N.D. Ohio Oct. 31, 2012). *Knopp v Bhd of Locomotive Eng'rs*, 699 F Supp 3d 615, 621 (N.D. Ohio 2023).
8. *Knopp v Bhd of Locomotive Eng'rs*, 699 F Supp 3d 615 (N.D. Ohio 2023). *Eastwood Mall v Slanco*, 68 Ohio St 3d 221, 223, 1994-Ohio-433, 626 NE2d 59 (Ohio 1993). *Manhattan Cmty Access Corp v Halleck*, 587 US 802, 139 S Ct 1921, 1926 (2019). *Jackson v Metro Edison Co.*, 419 US 345, 352 (1974).
9. *Connick v Meyers*, 461 US 138, 142 (1983). *Garcetti v Ceballos*, 547 US 410, 418 (2006). *Kennedy v Bremerton Sch Dist*, 597 US 507, 527 (2022). *Lee v York Cnty Sch Div*, 484 F3d 687, 693 (4th Cir 2007). *Polk v Montgomery Cty Pub Sch*, No. 25-1136, 2026 US App LEXIS 2140, at *29-30 (4th Cir Jan. 28, 2026).
10. *Jackson v Metro Edison Co.*, 419 US 345, 352 (1974).
11. *Manhattan Cmty Access Corp v Halleck*, 587 US 802, 815, 139 S Ct 1921, 1932 (2019).
12. Reputational risk explained. *LogicGate.* October 28, 2025. *Anderson v AHS Hillcrest Med Ctr Ltd Liab Co.*, No. 19-CV-468-TCK-JFJ, 2021 US Dist LEXIS 149861, at *25-26 (N.D. Okla. Aug. 10, 2021). *Wheat v Chase Bank*, 2014 US Dist LEXIS 14003, 2014 WL 457588, at *19 (S.D. Ohio Feb. 3, 2014). *Ellis v Bank of New York Mellon Corp.*, No. CV 18-1549, 2020 US Dist LEXIS 88567, 2020 WL 2557902, at *12 (W.D. Pa. May 20, 2020).
13 .Mira JJ, Lorenzo S, Navarro I. Hospital reputation and perceptions of patient safety. *Med Princ Pract.* 2024;23:92-94.
14. Recognize, assess, and manage reputational risk. LightStream Insights. November 29, 2023. https://www.thelightstreamgroup.com/recognize-assess-and-manage-reputational-risk/
15. Teichman PG. Documentation tips for reducing malpractice risk. *Fam Pract Manag.* 2000;7(3):29-33.

Accelerate Your Growth with the #1 Urgent Care Platform

Shifting visit volumes, rising consumer expectations, fragmented demand, and other market conditions are making growth difficult for urgent care businesses. Adapt to these changes with platform that connects every touchpoint in the patient journey. You deliver care more efficiently and grow at a pace that makes sense for you.

- EMR/PM
- RCM/BILLING
- PATIENT ENGAGEMENT
- TELERADIOLOGY
- BUSINESS INTELLIGENCE



EXPERITY®

Unified. AI-Driven. Patient-Centered.

$3B
COLLECTED FOR RCM PATIENTS IN LAST 5 YEARS

RCM AUTOMATION

RCM/BILLING

BUSINESS INTELLIGENCE

CARE AGENT

HOME

TELERADIOLOGY

EXAM ROOM

MASTER CLINICIANS, AI SCRIBE

150M+
PATIENTS SEEN ON EXPERITY

CLINIC

50%
URGENT CARE CLINICS RUN ON EXPERITY

EMR/PM

AI INSURANCE MATCHING

Solve Challenging Cases Quickly

visualDx

How VisualDx Can Help:

- ☑ Save time
- ☑ Improve operational efficiency
- ☑ Reduce unnecessary referrals

JUCM Readers Get

$50 OFF

visualdx.com/jucm

Don't pay out of pocket, use your CME Money!*

*We accept CME reimbursement, as long as your employer allows it. Check with them to confirm. Learn more: visualdx.com/earn-cme

The Effect of Computer Use in the Exam Room on Patient Satisfaction in Urgent Care

Urgent Message: The use of a computer in the urgent care examination room does not significantly impact patient satisfaction. As such, clinicians can use medical technologies in the exam room while maintaining confidence in the clinician-patient relationship.

Justin Bowles, MD; Mitchell Lopes, MS4; Chaya Pflugeisen, MSc, MEd

Citation: Bowles J, Lopes M, Pflugeisen C. The Effect of Computer Use in the Exam Room on Patient Satisfaction in Urgent Care. *J Urgent Care Med.* 2026;20(8):37-42

Keywords: electronic health records; physician-patient relations; patient satisfaction; ambulatory care facilities; communication; surveys and questionnaires

Abstract

Objectives*:* Primary care literature has shown that the use of technology in the examination room does not impact patient satisfaction. The purpose of this study was to evaluate the effects of medical provider exam-room computer use on patient satisfaction and patient perceptions of provider interpersonal skills in an urgent care setting.

Methods*:* In a single urgent care setting in suburban Puget Sound (Washington), care days were randomized to in-room computer use or non-use, with all providers staffing a given day adhering to randomization status. Following the visit, patients were surveyed to assess the provider's ability to make eye contact, listen, talk, understand their concerns, empathize, foster a healing relationship, collect information, and provide information, as well as overall satisfaction with their provider and their urgent care experience. Mann-Whitney U tests were performed to evaluate the relationships between each measure and computer use/non-use.

Results*:* Across intervention days, 302 patients per group (use/non-use; n=604) responded to the survey, representing roughly 50% of patients seen in the clinic on the study days. All relationships were nonsignificant (each p≥0.33), suggesting the provider's computer use

Author Affiliations: Justin Bowles, MD, Indigo Urgent Care, Puyallup, Washington. **Mitchell Lopes, MS4,** Pacific Northwest University of Health Sciences Yakima, Washington. **Chaya Pflugeisen, MSc, MEd,** Institute for Research & Innovation, Tacoma, Washington. Authors have no relevant financial relationships with any ineligible companies.

leads to no difference in patient satisfaction with provider interpersonal behaviors or overall satisfaction with the provider/encounter. Spearman correlations showed especially strong (r>0.9) relationships between several interpersonal behavior measures, but only moderate ($0.4 \leq r \leq 0.69$) relationships between measures of overall satisfaction and interpersonal behavior measures.

Conclusion*:* This study is consistent with previous findings in other medical settings that technology use by medical providers does not significantly impact patient satisfaction. As such, urgent care clinicians can use medical technologies in the exam room without impacting patient satisfaction.

Introduction

The use of an electronic health record (EHR) during the clinical encounter is a standard part of modern medical practice[1] and using a computer during the information gathering segments of the visit is widely considered to be both "appropriate and expected by patients."[2] EHRs are designed to optimize the quality and efficiency of healthcare delivery.[1] They facilitate collection and analysis of patient information, diagnosis, decision making, development of treatment plans, and sharing of medical information in ways not previously possible.[3,4] However, using the EHR in a way that preserves a satisfying clinical experience for both the patients and the healthcare provider can be challenging.[1]

Physicians report spending 42% of their consultation time in contact with the computer.[5] This has led some to view the EHR as a "third agent" in the exam room,[6] shifting the traditional doctor-patient dyad into a triadic relationship.[7] With the many popups, alerts, messages, warnings, flags, and alarms, the price a provider pays for the EHR is distraction.[1] Multitasking clinicians may miss opportunities for authentic engagement with their patients due to demands from the EHR.[2] Many medical providers are concerned about the impact of the EHR on their ability to look at, listen to, and understand the patient's concerns.[5] Conversely, providers who do not occasionally enter information into the computer during the encounter risk patients questioning if their concerns are being taken seriously.[2] Additionally, they carry the extra cognitive load of recalling correct details later.

Despite physicians' concerns regarding the impact of computer use on patient-physician communication, patients' perceptions of the same interaction are mostly positive.[5] Patients' attitudes toward the EHR occasionally have generational, cultural, and socioeconomic differences,[8] however, meta-analyses of patient perceptions of EHR use show almost exclusively positive or neutral effects on both patient satisfaction and patient–physician communication.[1,7,9,10] Patients' estimates are lower than those of their physicians regarding the amount of time the computer is used for completing the chart review, recording patient data, prescribing treatments, placing referrals, internet research, and internal communication.[5]

A meta-analysis of 53 studies on the impact of EHR use on the patient–physician relationship and communication concluded that since patient perceptions are not affected by their providers computer use, medical providers should embrace these technologies in a patient centered way.[10] An intervention as small as a 1-hour lecture on patient centered EHR use with a structured debrief made a significant difference on medical students' performance on a clinical skills examination.[11]

Urgent care is a unique and expanding medical specialty.[4] According to the Urgent Care Association's 2022 Benchmarking Report, the percentage of urgent care centers that operate in retail spaces nearly doubled from 2019 to 2022.[12] In recent years, many acute care clinics have adopted a "retail health" model, with a heavy focus on the consumer experience, adhering to the philosophy that the key to success in urgent care is providing patient experiences that yield "positive reviews and word-of-mouth referrals."[13]

A majority of studies regarding the impact of EHR on patient satisfaction were conducted in adult, outpatient, primary care settings.[2,3] It has been proposed that patient's acceptance of their provider's EHR use may be due to a previously established, strong patient–physician relationship,[10] confounding the interpretation of the impact of technology use. Thus, the next step to understanding the impact of computer use in the exam room should be investigation at low-continuity and medical-specialty settings.[10] As urgent care is often viewed by patients as more transactional than traditional medical settings, primary care literature exploring the impact of computer use in the exam room on patient satisfaction may not be generalizable to this clinical setting. The aim of this study was to evaluate the effect of computer use in the exam room on patient perceptions of the medical provider's ability to communicate, empathize, foster a healing relationship, and balance their attention in an urgent care setting.

Methods

Setting and Participants

This study was conducted in a single, free-standing ur-

Table 1. Clinic and Patient Demographics

	No Use (10 days)		Use (11 days)		Total	
Number of Providers in Clinic	**N**	**%**	**N**	**%**	**N**	**%**
1 Provider	59	19.50%	84	27.80%	143	23.70%
2 Providers	117	38.70%	155	51.30%	272	45.00%
3 Providers	126	41.70%	63	20.90%	189	31.30%
Total	302	100%	302	100%	604	100%
	No Use		**Use**		**Total**	
Patient Gender	**N**	**%**	**N**	**%**	**N**	**%**
Female	201	66.80%	201	67.20%	402	67.00%
Male	95	31.60%	93	31.10%	188	31.30%
Nonbinary	5	1.70%	5	1.70%	10	1.70%
Total	301	100%	299	100%	600	100%
	No Use		**Use**		**Overall**	
Patient Age in Years - Mean (SD)	38.5 (16.7)		37.2 (14.7)		37.9 (15.7)	
Patient Age in Years - Median (IQR)	36 (24)		34 (18)			
Patient Age in Years - Range	2-85		5-85			
	No Use		**Use**		**Overall**	
	N	**%**	**N**	**%**	**N**	**%**
White Patients	224	74.20%	213	70.50%	437	73.80%

gent care clinic situated in a suburban retail space in the South Puget Sound region of Washington State. Each provider averages 3-4 patient encounters an hour. A total of 13 providers (3 physicians, 6 nurse practitioners, 4 physician assistants) participated in the study. Study days were selected according to the principal investigator's (PI) clinic schedule to ensure appropriate and consistent study oversight and management. These days were randomly assigned as "computer use" or "no computer use" using a balanced design. All providers working that day were assigned to the same group, and all patients seen on these days were invited to participate in the study by completing a brief survey at the time of discharge. The medical providers were not blinded to the objectives of the study or the survey instrument. Parents completed surveys with or on behalf of minors.

Instrument

A 10-item survey inventory was adapted from relevant previous studies.[2,5] The impact of computer use was evaluated using a 6-point Likert-type scale question without a neutral response option (Very Satisfied to Very Unsatisfied) and assessed the patient's perception of the provider's ability to make eye contact, listen, talk, understand their concerns, empathize, foster a healing relationship, collect information, and provide information. Patients were also asked to rate their general satisfaction with their medical provider and their overall experience before self-reporting basic demographic information including age, gender, and race. Built and distributed using a REDCap survey,[14] the questionnaire did not collect any patient identifying information, was not tied to a specific encounter or provider, and responses were not accessible to the providers. The study was reviewed by our organization's Institutional Review Board and approved as exempt (IRB number 2024/08/01).

Data Collection

An *a priori* power calculation identified a sample of 600 participants (300 per group) to have a 99% power to

Table 2. Participant Ratings of Patient Care Behaviors, Provider, and Overall Satisfaction, Between Encounters Where Providers Did Not Use (No Use) or Did Use (Use) the Computer

	a) Eye contact				b) Listen to me				c) Talk with me				d) Understand concerns				e) Empathize			
	No Use		Use		No Use		Use		No Use		Use		No Use		Use		No Use		Use	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Very Unsatisfied	4	1%	1	0%	4	1%	1	0%	4	1%	1	0%	4	1%	1	0%	4	1%	1	0%
Unsatisfied	0	0%	1	0%	1	0%	0	0%	1	0%	0	0%	1	0%	0	0%	0	0%	0	0%
Somewhat Unsatisfied	2	1%	0	0%	0	0%	1	0%	0	0%	0	0%	0	0%	0	0%	3	1%	1	0%
Somewhat Satisfied	0	0%	1	0%	1	0%	1	0%	1	0%	1	0%	3	1%	0	0%	0	0%	3	1%
Satisfied	19	6%	19	6%	16	5%	17	6%	13	4%	16	5%	14	5%	17	6%	18	6%	20	7%
Very Satisfied	277	92%	280	93%	280	93%	282	93%	283	94%	283	94%	279	93%	282	94%	275	92%	276	92%
Total	**302**	**100%**	**302**	**100%**	**302**	**100%**	**302**	**100%**	**302**	**100%**	**301**	**100%**	**301**	**100%**	**300**	**100%**	**300**	**100%**	**301**	**100%**
Mann-Whitney U p Value	**0.63**				**0.73**				**0.84**				**0.48**				**0.96**			
	f) Foster healing				**g) Collect information**				**h) Provide information**				**i) Satisfied w/provider**				**j) Satisfied overall**			
	No Use		Use		No Use		Use		No Use		Use		No Use		Use		No Use		Use	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Very Unsatisfied	4	1%	1	0%	4	1%	1	0%	4	1%	1	0%	0	0%	3	1%	1	0%	2	1%
Unsatisfied	0	0%	0	0%	0	0%	0	0%	1	0%	0	0%	0	0%	0	0%	1	0%	1	0%
Somewhat Unsatisfied	2	1%	3	1%	1	0%	1	0%	0	0%	1	0%	1	0%	0	0%	1	0%	0	0%
Somewhat Satisfied	3	1%	5	2%	3	1%	0	0%	3	1%	3	1%	2	1%	3	1%	2	1%	5	2%
Satisfied	25	8%	26	9%	19	6%	19	6%	17	6%	20	7%	23	8%	25	8%	34	11%	28	9%
Very Satisfied	264	89%	265	88%	273	91%	281	93%	276	92%	275	92%	276	91%	271	90%	261	87%	266	88%
Total	**298**	**100%**	**300**	**100%**	**300**	**100%**	**302**	**100%**	**301**	**100%**	**300**	**100%**	**302**	**100%**	**302**	**100%**	**300**	**100%**	**302**	**100%**
Mann-Whitney U p Value	**0.93**				**0.33**				**0.98**				**0.47**				**0.73**			

Patient care behaviors (a-h), provider (i), overall satisfaction (j). The N values vary slightly because not all participants answered every survey question.

detect a small-medium effect size using Cohen's d (d=0.3).[15] During the morning huddle on intervention days, the principal investigator (JB) shared the day's randomization status with the providers staffing the clinic that day and reminded them of the study protocols. He ensured that QR codes were accessible in the clinic rooms to facilitate survey completion following the encounter. At the time of discharge, patients were invited to scan the QR code to access the survey on their personal phone to be completed at that time or later. Survey result data were accessible only to the research team.

Data Analysis

We used descriptive statistics to explore patient demographic distributions and assessed these for significant differences between the computer-use and no-use groups using Fisher's Exact, t-tests, and z-tests, as appropriate. Frequency distributions by intervention group were generated for each of the 10 core measures (8 interpersonal skills, satisfaction with provider, and overall satisfaction). We used the nonparametric Mann-Whitney U test to assess each of those distributions for significant differences by group with a significance threshold of $\alpha<0.01$ to account for multiple testing.

We also examined Spearman correlations between measures to better understand the relationship between the 8 assessed interpersonal-skills and between those skills and satisfaction with the provider and the encounter. We then used Fisher's r-to-z transformation to calculate z test statistics and compare these correlations between groups. Any absolute $z>2.576$ was considered significant at the 0.01 level. Randomization and all data analysis was performed in the R statistical computing environment.[14]

Results

The study captured 10 days without provider computer use in the exam room ("no use") and 11 days with computer use ("use"). Across these intervention days, 302 patients completed surveys from each group, representing 53.8% and 52.3% of patients seen on those days, respectively. Participants were 67.0% female and 1.7% nonbinary with no difference in gender distribution between groups (Fisher's Exact test, p=0.85). Ages ranged from 2–85 years old at the time of the encounter, with a mean age of 37.9 ±15.7 years and no significant difference in age distribution between groups (Student's

Table 3. Spearman Correlations Between Measures Among Patients Whose Providers Did Not Use The Computer And Those Whose Providers Used The Computer During The Encounter

Patient reported satisfaction with provider ability to:	Listen to me		Talk with me		Understand my concerns		Empathize with me		Foster a healing relationship		Collect information		Provide information		Satisfaction with provider	
Computer Used?	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
a) Listen to me																
b) Talk with me	**0.93**	**0.89**														
c) Understand my concerns	**0.91**	**0.78**	0.88	0.88												
d) Empathize with me	0.84	0.79	**0.82**	**0.73**	**0.89**	**0.78**										
e) Foster a healing relationship	0.74	0.68	0.72	0.63	**0.73**	**0.59**	0.76	0.72								
f) Collect information	0.86	0.87	0.83	0.87	0.82	0.81	0.76	0.81	0.76	0.68						
g) Provide information	0.82	0.79	0.79	0.79	0.78	0.74	0.67	0.70	0.65	0.59	**0.86**	**0.77**				
h) Satisfaction with provider	0.54	0.66	0.50	0.61	0.50	0.61	0.50	0.58	0.50	0.52	0.56	0.64	0.59	0.61		
i) Overall satisfaction	0.43	0.44	0.39	0.38	0.39	0.47	0.39	0.48	0.40	0.50	0.43	0.46	0.50	0.44	0.72	0.71

Correlation strength is considered moderate at 0.4-0.69, strong at 0.7-0.89, and very strong from 0.9-1.0. Bolded correlations significantly differ between groups at the 0.01 level.

t-test, p=0.31). Self-reported race/ethnicity also did not differ significantly between groups, with 73.8% of the respondents self-reporting as Non-Hispanic White (z-test, p=0.36) **(Table 1)**.

Respondents generally reported very high satisfaction across the 10 measures, with 97-100% of respondents indicating that they were satisfied or very satisfied with any given measure across intervention groups. All Mann-Whitney U p-values were ≥0.33, suggesting no difference in satisfaction with provider interpersonal behaviors, overall satisfaction with the provider, or overall satisfaction with the encounter among patients whose providers used the computer during the encounter and those whose providers did not **(Table 2)**.

Each interpersonal measure was strongly ($0.7 \leq r \leq 0.89$) to very strongly ($0.9 \leq r \leq 1.0$) correlated with the others **(Table 3)**. Correlations between the interpersonal behaviors and overall satisfaction with the provider or the encounter were moderate ($0.4 \leq r \leq 0.69$). Several significant differences in correlations between computer use and no computer use did exist **(Table 3, bold)**. Although no statistical difference in satisfaction was identified **(Table 2)**, we saw stronger correlations in the no-use group in the relationships between providers listening and talking with the patient, listening and understanding, empathizing and talking with the patient, understanding and fostering a healing relationship, and the provider's ability to both collect and provide information to the patient.

Discussion

This study is consistent with the current body of literature[1,6,7,9,10] in finding that there is no significant difference in overall experience or any of the 8 interpersonal behaviors when providers use or don't use the computer in the exam room. Since providers' technology use is not associated with patient satisfaction, urgent care providers can feel confident in using the clinical interaction style that they find most efficient.

This topic has been well studied, including several meta-analyses[7,9,10] in the outpatient primary care setting. However, a previously established patient–physician relationship may function as a confounder.[10] This study expands the body of work to the retail health urgent care setting, where pre-existing patient-provider relationships frequently do not exist, thus removing it as a possible confounder.

A recent study, involving nearly 33 million patient encounters from a nationwide urgent care network in 2024, found that "more than half of net promoter score (NPS) is likely determined by non-quantifiable" factors that are described as "intangibles."[13] This study makes an additional contribution to the literature by exploring the relationship between key interpersonal skills used by our providers. A very strong correlation was found between the patient's perception of the provider's abilities to listen and talk with them, as well as listen and understand their concerns. These correlations were significantly higher when the provider was not using a computer in the room. Similarly, computer non-use showed significantly higher correlations between providers listening and talking with the patient, listening and understanding the patient, empathizing and talking with the patient, understanding and fostering a healing

"This study is consistent with previous findings that technology use by medical providers does not affect patient satisfaction and expands this finding to the urgent care setting. Therefore, urgent care clinicians can use medical technologies in the exam room without impacting patient satisfaction."

relationship, and the provider's ability to both collect and provide information to the patient. This finding suggests that even though patient satisfaction was not statistically different between the computer-use and no-use groups, it's possible that there are less tangible, yet meaningful, differences in urgent care clinical interactions when the computer is used in the examination room.

Studies have shown that providers who deliberately apply skills like screen sharing,[1] looking more frequently at their patients,[6] maintaining eye contact,[6] limiting EHR use during difficult and emotional topics,[1] and employing other nonverbal cues when patients are describing their complaints[6] can increase the amount of sensitive information shared with them. These providers are also perceived by patients as more trustworthy and genuine.[1] It is reassuring for all providers to remember these skills can improve the patient interaction,[6] and that these skills can be learned.[11]

This study has several notable limitations. First, the patients surveyed received their care at a single urgent care clinic, limiting generalizability to other urgent care centers or regions. Much of the previous literature included only experienced primary care physicians, which limits comparability. Ideally, each of the 13 providers included in the study would have completed an equal number of encounters with and without using the computer in the room, however, this was not feasible in this real-world setting. Furthermore, the medical providers were not blinded to the intervention or assessment tool. It is possible that they behaved differently during different study protocol days.

Conclusion

In a healthcare market where urgent care clinics are required to ensure a positive consumer experience, medical providers must accept that much of the patient's satisfaction will be derived from the patient-physician interaction[13] and use of the EHR. This study is consistent with previous findings that technology use by medical providers does not affect patient satisfaction and expands this finding to the urgent care setting. Therefore, urgent care clinicians can use medical technologies in the exam room without impacting patient satisfaction. ■

Manuscript submitted July 14, 2025; accepted March 23, 2026.

References

1. Wolfe L, Chisolm MS, Bohsali F. Clinically excellent use of the electronic health record: review. *JMIR Hum Factors.* 2018;5(4):e10426. doi:10.2196/10426
2. Ratanawongsa N, Barton JL, Lyles CR, Wu M, Yelin EH, Martinez D, Schillinger D. Association between clinician computer use and communication with patients in safety-net clinics. *JAMA Intern Med.* 2016;176(1):125-128. doi:10.1001/jamainternmed.2015.6186
3. Makoul G, Curry R, Tang P. The use of electronic medical records. *J Am Med Inform Assoc.* 2001;8:610-615.
4. Urgent Care Association. 2021 UCA Urgent Care data summary. https://urgentcareassociation.org/about/urgent-care-data/. Accessed June 2025.
5. Sobral D, Rosenbaum M, Figueiredo-Braga M. Computer use in primary care and patient physician communication. *Patient Educ Couns.* Published online July 8, 2015. doi:10.1016/j.pec.2015.07.002
6. Rathert C, Mittler JN, Banerjee S, McDaniel J. Patient-centered communication in the era of electronic health records: what does the evidence say? *Patient Educ Couns.* 2017;100(1):50-64. doi:10.1016/j.pec.2016.07.031
7. Pearce CM, Kumarapeli P, de Lusignan S. Effects of exam room EHR use on doctor-patient communication: a systematic literature review—triadic and other key terms may have identified additional literature. *Inform Prim Care.* 2013;21(1):40-42. doi:10.14236/jhi.v21i1.39
8. Shachak A, Reis S, Pearce C. Patient-physician interactions and electronic health records. *JAMA.* 2013;310(17):1857-1858. doi:10.1001/jama.2013.277969
9. Rozenblum R, Donzé J, Hockey PM, Guzdar E, Labuzetta MA, Zimlichman E, Bates DW. The impact of medical informatics on patient satisfaction: a USA-based literature review. *Int J Med Inform.* 2013;82(3):141-158. doi:10.1016/j.ijmedinf.2012.12.008
10. Alkureishi MA, Lee WW, Lyons M, Press VG, Imam S, Nkansah-Amankra A, Werner D, Arora VM. Impact of electronic medical record use on the patient-doctor relationship and communication: a systematic review. *J Gen Intern Med.* 2016;31(5):548-560. doi:10.1007/s11606-015-3582-1
11. Lee WW, Alkureishi ML, Wroblewski KE, Farnan JM, Arora VM. Incorporating the human touch: piloting a curriculum for patient-centered electronic health record use. *Med Educ Online.* 2017;22(1):1396171. doi:10.1080/10872981.2017.1396171
12. Urgent Care Association. 2022 UCA benchmarking report. https://urgentcareassociation.org/resources/2022-uca-operations-benchmarking-report/. Accessed June 2025.
13. Ayers AA. Shorter visits drive greater patient satisfaction in urgent care. *J Urgent Care Med.* 2025;19(6):37-43.
14. R Core Team. R: a language and environment for statistical computing. R Foundation for Statistical Computing; 2023. https://www.R-project.org. Accessed June 2025.
15. Cohen J. Statistical power analysis for the behavioral sciences. 2nd ed. Routledge; 1988. doi:10.4324/9780203771587

Variation in Pretibial Laceration Management

Take Home Point: Assessment and management of pretibial lacerations lack consistent standardized guidelines, which is needed to improve patient outcomes.

Citation: Shafi S, Shaw A, Koubeh W, et al. Management of pretibial lacerations: A systematic review. *Injury*. 2026;57(4):113101. doi: 10.1016/j.injury.2026.113101

Relevance: Pretibial lacerations are commonly encountered in both emergency departments (EDs) and urgent care (UC) settings, especially among older adults. Despite their frequency, management approaches vary widely across settings and regions.

Study Summary: This was a systematic review conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist. MEDLINE, EMBASE, CINAHL, the Cochrane Central Register of Controlled Trials (CENTRAL), and ClinicalTrials.gov databases were used in the literature search to identify studies reporting on the assessment and/or management of pretibial lacerations.

A total of 29 studies involving 2,893 patients were included: 6 randomized controlled trials (RCTs); 12 cohort studies; and 11 case series. There was substantial variability in how lacerations were assessed, treated, and how outcomes were reported.

In studies that reported on operative management, the mean time to complete wound healing ranged from 13 to 70 days. Among the 3 RCTs that reported this outcome, mean time to complete wound healing ranged from 13 to 42 days. In contrast, studies that reported on nonoperative management were associated with longer wound healing times, ranging from 18 to 123 days. In the nonoperative RCTs, mean time to complete wound healing ranged from 32 to 123 days. Infection was the most common complication across both groups (0% to 63%). One month mortality rates were as high as 15%. Significant heterogeneity in study design and inconsistent definitions of outcomes and adverse events precluded meta-analysis. Comorbidities were inconsistently reported, though commonly noted conditions included ischemic heart disease, diabetes, chronic obstructive pulmonary disease/asthma, and long-term steroid use.

Editor's Comments: The review highlights marked variability in treatment approaches and a lack of high-quality evidence to guide practice. No studies from low- or middle-income countries were identified, which may reflect under-reporting, differences in coding practice, or publication bias rather than absence of cases.

There is a clear need for standardized wound classification systems and consistent outcome measures, including patient-reported outcomes for pretibial lacerations. Future RCTs comparing operative and nonoperative strategies—and techniques within each—are needed to better inform clinical decision-making. ■

Ivan Koay MBChB, MRCS, FCUCM, FRNZCUC, MD, is an urgent care physician and Convenor of Ireland and UK Faculty of the Royal New Zealand College of Urgent Care as well as the London Representative Faculty of Prehospital Care of the Royal College of Surgeons, Edinburgh.

Can We Age Adjust D-Dimer to Rule Out Deep Vein Thrombosis?

Take Home Point: Using an age-adjusted D-dimer cutoff may safely exclude deep vein thrombosis (DVT) while reducing unnecessary imaging.

Citation: Le Gal G, Robert-Ebadi H, Thiruganasambandamoorthy V, et al. ADJUST-DVT Investigators. Age-Adjusted D-Dimer Cutoff Levels to Rule Out Deep Vein Thrombosis. *JAMA*. 2026 Feb 3;335(5):416-424. doi: 10.1001/jama.2025.21561.

Relevance: D-dimer testing is a widely used tool to exclude DVT in patients with low or intermediate clinical probability (based on Wells Score). However, its specificity decreases with age, limiting its usefulness in older adults.

Study Summary: This was a multicenter, multinational prospective diagnostic management outcome study, involving 27 hospitals in 4 countries (Belgium, Canada, France, and Switzerland). Patients presenting to EDs in the participating hospitals with a suspected DVT were recruited into the study. Clinical pretest probability of DVT was assessed using the Wells score. Patients with a low

or intermediate pretest probability had a D-dimer test performed. The D-dimer result was interpreted according to the age-adjusted cutoff; in patients younger than 50 years, DVT was excluded in those with a D-dimer value below 500 µg/L. In patients 50 years or older, the D-dimer test was considered negative if the result was below their age multiplied by 10, in µg/L (same as age-adjusted D-dimer for pulmonary embolism). Those with a positive D-dimer test underwent Doppler ultrasonography, while those with a negative test result had no further testing. All patients were followed for 3 months.

In total, 3,205 patients were enrolled and 2,169 (67.7%) had low or intermediate pretest probability. Of those, 692 patients (31.9% [95% confidence interval {CI} 30.0%-33.9%]) had a negative D-dimer result according to the age-adjusted cutoff. 531 (24.5% [95% CI 22.7%–26.4%]) had a D-dimer level less than 500 µg/L, and 161 additional patients (7.4% [95% CI 6.4%–8.6%]) had a D-dimer level between 500 µg/L and their age adjusted cutoff. This resulted in a 7.4% (95% CI 6.4%–8.6%) absolute increase, or a 23.3% (95% CI 20.3%–26.6%) relative increase, in the proportion of negative D-dimer results. There were no events among the 161 patients with a D-dimer level greater than 500 µg/L but below their age-adjusted D-dimer cutoff (0/161; 0.0% [95% CI 0.0%–2.3%]).

Editor's Comments: D-dimer assays were not standardized, with 11 different assays used, leading to some variability in interpretation. Additionally, the study was not randomized, limiting direct comparison between standard and age-adjusted D-dimer level cutoff strategies. There was a relatively low overall DVT prevalence, which may also influence generalizability.

Despite these limitations, the findings support the potential value of using age-adjusted D-dimer thresholds to improve diagnostic efficiency in the evaluation of DVT. This approach may help clinicians reduce unnecessary imaging while maintaining safety when applied correctly to symptomatic patients. ■

Casting Vs Surgery For Unstable Lateral Malleolus Fractures

Take Home Point: Cast immobilization was non-inferior to surgery for the treatment of unimalleolar Weber B ankle fractures with a congruent mortise on initial radiography but deemed unstable by external rotation stress testing.

Citation: Kortekangas T, Lehtola R, Leskelä H, et al. Cast immobilisation versus surgery for unstable lateral malleolus fractures (SUPER-FIN): randomised non-inferiority clinical trial. *BMJ*. 2026;392:e085295. doi: 10.1136/bmj-2025-085295

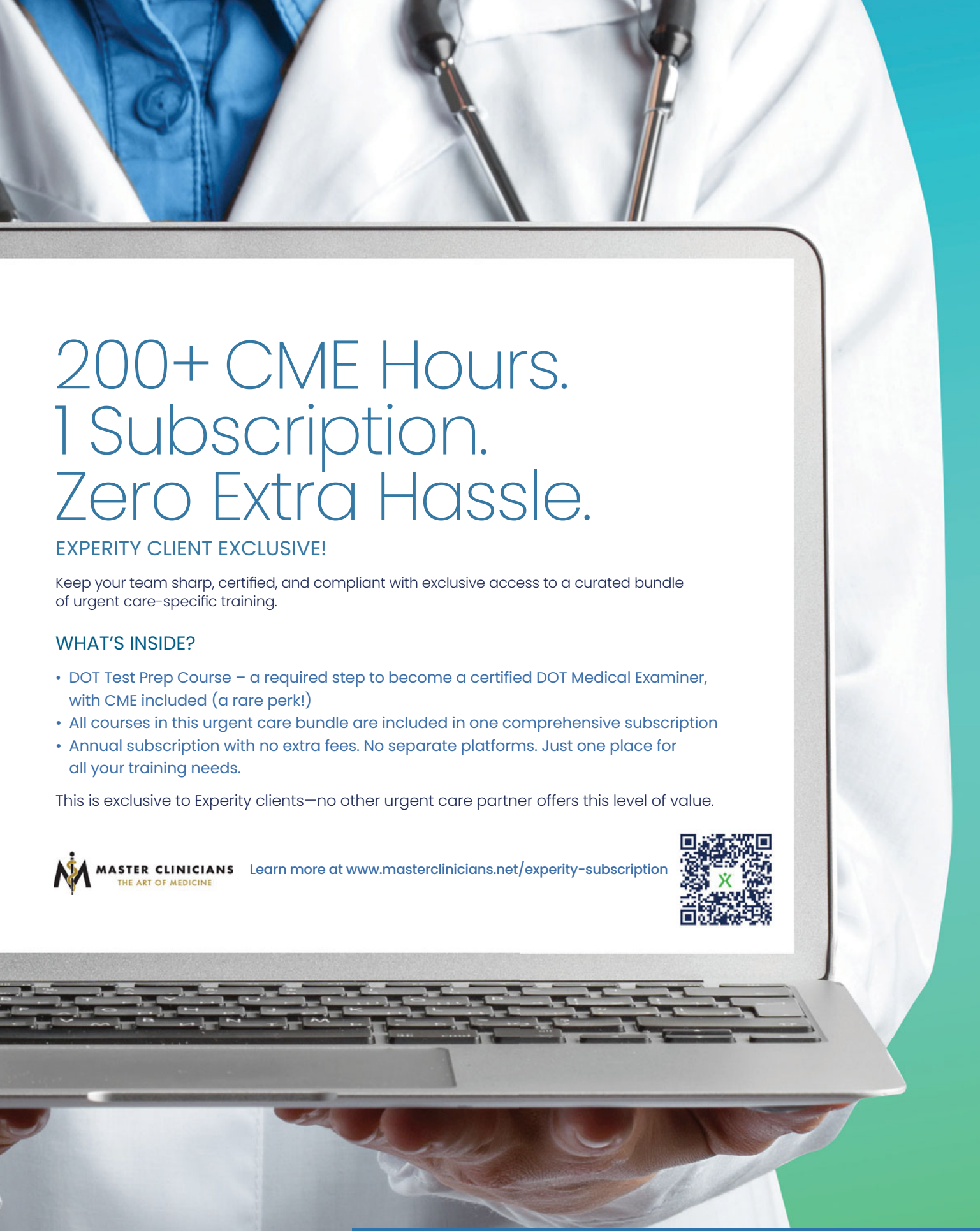
Relevance: Weber B fractures are a common fracture of the ankle and management decisions are based on whether the ankle mortise remains congruent and fracture stability.

Study Summary: This was a randomized, parallel group, non-inferiority trial comparing cast immobilization for 6 weeks to surgery for Weber B ankle unstable fractures with a congruent mortise in a single university hospital in Finland. The study followed the Consolidated Standards of Reporting Trials (CONSORT) guidelines for non-inferiority trials. Participants with unimalleolar Weber B fracture, with congruent mortise on initial radiographs (medial clear space <4 mm and ≤1 mm wider than the superior clear space), were enrolled in the trial. All participants were investigated for fracture stability using the external rotation stress test. If unstable, they were then randomized in a 1:1 ratio to undergo either cast immobilization for 6 weeks or surgery. Clinical follow-up continued for 2 years after randomization. The primary outcome was the Olerud-Molander Ankle Score (OMAS) at 2 years. OMAS is a validated, condition specific, patient-reported outcome measure for ankle fracture symptoms (range 0-100; higher scores indicating better outcomes and fewer symptoms; minimal important difference 12 points).

A total of 126 participants underwent randomization: 62 to the cast immobilization and 64 to surgery. In the primary intention-to-treat analysis, the mean OMAS at 2 years was 89 in the cast immobilization group and 87 in the surgery group (between group mean difference 1.3 points, 95% CI −4.8–7.3). One participant in each group had a radiographically confirmed nonunion. There were more complications in the surgical group, which included wound infection (1), delayed wound healing (1), and hardware removal procedures (9).

Editor's Comments: The narrow scope of the study limits its generalizability to other ankle fracture patterns, including other Weber fracture types. Additionally, the generalizability is limited as this was performed at a single center. However, the study highlights a prevailing shift to more conservative/nonoperative approaches in the treatment of fractures.

For UC clinicians, this may inform decisions regarding orthopedic referral urgency and help identify fractures that



200+ CME Hours. 1 Subscription. Zero Extra Hassle.

EXPERITY CLIENT EXCLUSIVE!

Keep your team sharp, certified, and compliant with exclusive access to a curated bundle of urgent care-specific training.

WHAT'S INSIDE?

- DOT Test Prep Course – a required step to become a certified DOT Medical Examiner, with CME included (a rare perk!)
- All courses in this urgent care bundle are included in one comprehensive subscription
- Annual subscription with no extra fees. No separate platforms. Just one place for all your training needs.

This is exclusive to Experity clients—no other urgent care partner offers this level of value.

MASTER CLINICIANS
THE ART OF MEDICINE

Learn more at www.masterclinicians.net/experity-subscription

EXPERITY®

may be managed conservatively. This could decrease unnecessary patient costs in time and money. UC clinicians are still advised to follow local protocols as practice patterns and orthopedic treatment preferences vary. ■

Using Artificial Intelligence Powered Scribes for Documentation

Take Home Point: AI-powered voice-to-text technology (AIVT) offers significant potential to improve clinical documentation and patient experience of clinical consultations through reduced clinician workload and improved clinician-patient interactions, though reliability and oversight remain important considerations.

Citation: Alboksmaty A, Aldakhil R, Hayhoe B, et al. The impact of using AI-powered voice-to-text technology for clinical documentation on quality of care in primary care and outpatient settings: a systematic review. *eBioMedicine*, 2025; 118

Relevance: Documentation demands contribute significantly to clinician workload. AI-based tools may help reduce this burden while maintaining or improving documentation quality.

Study Summary: This systematic review followed the PRISMA 2020 Checklist to assess the evidence on using AIVT to document individual patient-clinician medical consultations. This review focused specifically on effectiveness, efficiency, safety, patient-centeredness, timeliness, equity, and integration. The authors reviewed publications across 5 databases (MEDLINE, Embase, Global Health, CINAHL, and Scopus) to identify studies that assessed the use of AIVT in primary care or outpatient clinic settings in the documentation of 2-way medical consultations between a healthcare professional (HCP) and a patient.

The authors identified 9 studies for analysis that involved 524 HCPs and 616 patients, with a total of 1,069 medical consultations. All studies reported improved documentation processes with AIVT, allowing clinicians to focus more on patient interactions. Five studies demonstrated increased documentation efficiency. However, 1 study noted increased time spent reviewing and correcting documentation, potentially contributing to after-hours work. The quality of AIVT-generated documentation was often comparable to, and sometimes better than, traditional methods. However, there was no clear consensus regarding the safety of relying on AIVT tools for clinical documentation without subsequent HCP review. Generalizability was limited due to limited included patient populations, with most studies focusing on diabetes care and excluding pediatric and psychiatric settings.

Editor's Comments: Heterogeneity across studies—including differences in AIVT systems, patient populations, and clinicians—limited comparability. Standardized measures such as word error rate could not be consistently applied. Implementation challenges remain, including developing standardized policies and regulations to guide AIVT integration into clinical practice. There remain concerns around ethical principles, confidentiality, data security, patient consent, and accountability for errors. Clinicians and organizations should use AIVT with awareness of its benefits and drawbacks. ■

Emergency Department Interventions in Smoking Cessation

Take Home Point: Smoking cessation interventions incorporating nicotine replacement therapy (NRT) delivered in the ED resulted in increased quit rates with moderate certainty.

Citation: Pope I, Gentry S, Livingstone-Banks J, et al. Emergency department interventions for smoking cessation: a systematic review and meta-analysis. *Emerg Med J* 2026;0:1–10. doi:10.1136/emermed-2025-215326

Relevance: Supporting people who wish to quit smoking is among the most powerful interventions to improve health and combat health inequalities. The ED represents an opportunity to initiate cessation efforts.

Study Summary: This was a systematic review reported in accordance with PRISMA guidelines. Database searches of the Cochrane Central Register of Controlled Trials, MEDLINE, Embase, PsycINFO, CINAHL, US National Institutes of Health Ongoing Trials Register, and WHO International Clinical Trial Registry Platform were conducted for randomized controlled trials (RCTs) based in the ED, where the goal of the intervention was smoking cessation and follow-up was at least 3 months.

There were 19 studies included in the systematic review with 9,211 randomized participants (4,707 intervention and 4,504 control). Of these, 17 were incorporated into

the meta-analyses (6 RCTs for NRT interventions and 11 RCTs for behavioral interventions without pharmacotherapy). The authors found moderate-certainty evidence that interventions incorporating NRT were more likely to result in smoking cessation compared with control. The risk ratio (RR) was 1.55 (95% CI 1.27–1.89, p<0.0001). Trials involving behavioral support alone delivered in the ED demonstrated a RR of quitting compared with controls of 1.18 (95% CI 0.85–1.64, p=0.32).

Editor's Comments: None of the included studies evaluated other smoking cessation pharmacologic therapies such as varenicline or bupropion, representing a promising area for future research. Considerable behavioral intervention and pharmacotherapy heterogeneity existed across both intervention and control groups, which may dilute the impact of any particular individual component. Smoking cessation programming implementation challenges exist, especially in high-volume ED or UC settings. These include limited clinician time and staffing. Alternative models, such as involving nonclinical staff during patient waiting times, may help integrate smoking cessation support into urgent care practice. This effort could promote health in local communities. ■

Intravenous Saline Plus Drug Therapy For Migraine Treatment

Take Home Point: Adding 1,000 mL intravenous saline to nonsteroidal anti-inflammatory drug (NSAID)-based therapy did not significantly improve pain relief at 2 hours in patients with acute migraine.

Citation: Turan Y, Akoglu H, Unal E, et al. Efficacy of Adding Intravenous Saline Solution to Nonsteroidal Anti-Inflammatory Drug-Based Treatment of Acute Migraine in the Emergency Department. *Ann Emerg Med.* 2026;87(2):157-166. doi: 10.1016/j.annemergmed.2025.09.013

Relevance: Migraine affects approximately 10% of the global population and is a common presentation to EDs and UCs. Intravenous fluids are often used alongside pharmacologic therapy (including NSAIDs), though supporting evidence is limited.

Study Summary: This was a single-center, double-blind, parallel-group, randomized controlled trial conducted at a single tertiary care emergency department in Turkey. Participants were adults diagnosed with migraine who presented with an acute attack and were able to provide written informed consent. Researchers randomized patients with a 1:1 ratio to receive 1,000 mL of normal saline solution by intravenous infusion at 1,000 mL/hour for 1 hour (intervention group) or 10 mL of normal saline solution by intravenous infusion at 10 mL/hour for 1 hour (control group). Both groups also received 75 mg intramuscular diclofenac. The primary outcome was the change in headache visual analog scale (VAS) scores 2 hours postintervention. Secondary outcomes included use of rescue medication, ED length of stay, and adverse events.

"Alternative models, such as involving nonclinical staff during patient waiting times, may help integrate smoking cessation support into urgent care practice. This effort could promote health in local communities."

A total of 125 patients were included in analysis (64 intervention group, 61 control group). The median change in VAS score for headache was 62.0 mm (interquartile range [IQR] 37.5–82.0) in the intervention group, and 48.0 mm (IQR 26.0–74.0) in the control group. The estimated median VAS score difference between groups was 10.0 mm (95% CI –2.0 to 20.0), however, this difference was not statistically significant. Headache, nausea, and functional disability decreased over time in both groups, with no differences found between groups during the study. Rescue medication was used more frequently in the control group 23.8% vs 42.5% with a difference of 18.6% (95% CI 2.1–35.0). Median ED length of stay was shorter in the intervention group (150 vs 168 minutes; difference 19 minutes, 95% CI 0–39). No serious adverse events occurred.

Editor's Comments: The single-center design limits generalizability. The nurses involved in the care of the patients were not blinded, which may have influenced patient responses and physician decisions regarding rescue medication. Additionally, alternative migraine treatments were not evaluated, which limits the scope of the study's results. Further research is needed to clarify the role of intravenous fluids in migraine management and to assess broader treatment strategies. ■

Unified. AI-Driven. Patient-Centered.

LEVERAGE PROVEN TELERADIOLOGY SERVICES

As part of our unified platform, fast, accurate X-ray results move patient care forward quickly. Assisted by the latest AI-technology, our radiologists identify hidden abnormalities that may not be indicated by a patient's chart. Every study, stat or routine, arrives fast so clinicians can treat patients with confidence, reduce clinical risk, and keep your urgent care center running efficiently.

- Diagnose and treat patients faster
- Reduce missed diagnoses and clinical errors
- Receive primary reads and expert overreads from board-certified radiologists

See More Patients. Deliver Better Care. Optimize Revenue.

EXPLORE TELERADIOLOGY

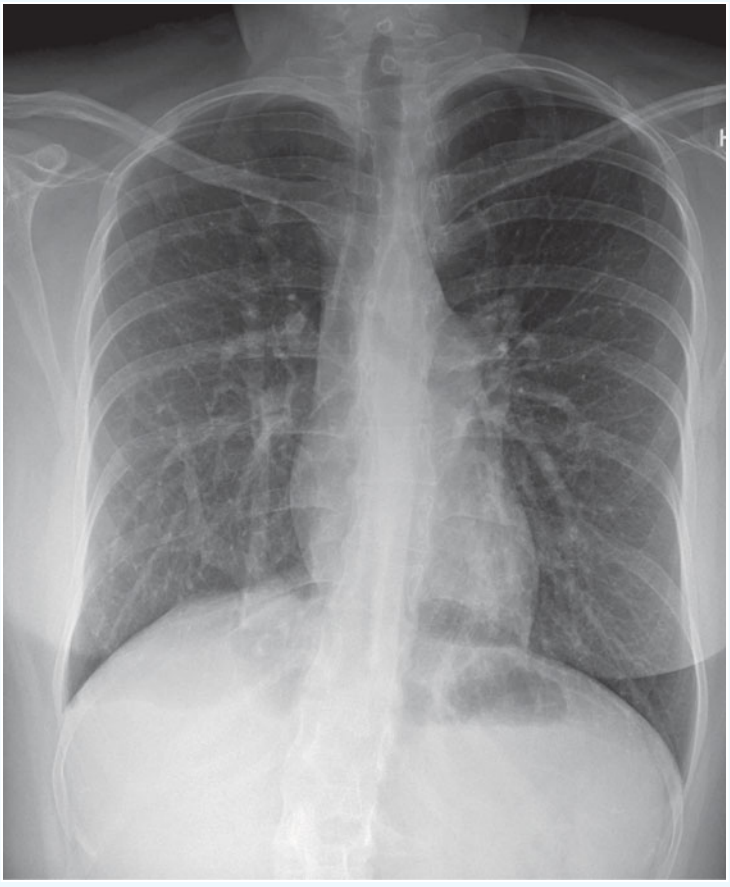
EXPERITY®

ExperityHealth.com | 815.544.7480

CLINICAL IMAGE CHALLENGE
X-RAY

Editor's Note: While the images presented here are authentic, the patient cases are hypothetical.

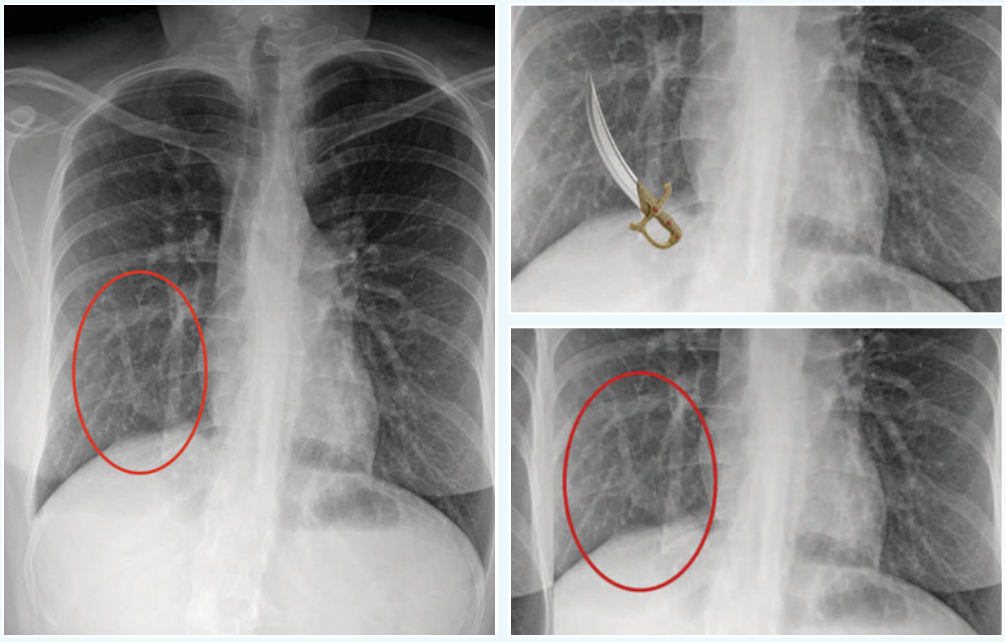
26-Year-Old Female With Cough, Shortness of Breath, and Fatigue



A 26-year-old female presents to urgent care with a persistent productive cough for 1 week. Over the past 3 days, she reports progressive shortness of breath and fatigue. She has a history of recurrent pneumonia. Vital signs show the patient is afebrile with normal blood pressure, heart rate, respiratory rate, and oxygen saturation. Physical examination reveals clear lung sounds with diminished air movement in the bilateral bases. Jugular venous distension (JVD) at 4 cm above the sternal angle and trace bilateral lower extremity edema to the ankles are noted. Cardiac exam reveals rightward displacement of the point of maximal impulse (PMI) and a 2/6 systolic murmur. Chest radiographs are ordered.

View the chest x-ray image and consider what your diagnosis and next steps would be. Resolution of the case is described on the following page.

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



Differential Diagnosis

- Bronchopulmonary sequestration
- Pulmonary vein dilatation
- Pulmonary abscess
- Community-acquired pneumonia
- Partial anomalous pulmonary venous return
- Pulmonary nodule
- Atelectasis

Diagnosis

A branching linear density is seen extending up from the slightly elevated right hemidiaphragm to the right lung base, and a vertical vein extends to the right upper chest. This may represent partial anomalous pulmonary venous return (PAPVR) with Scimitar sign.

PAPVR is a congenital anomaly where 1 or more pulmonary veins drain into the right atrium or systemic venous circulation instead of the left atrium of the heart. The defect itself often has no significant clinical impact, and asymptomatic patients generally do not require intervention. The left-to-right shunting can increase pulmonary blood flow, which can lead to pulmonary hypertension and volume overload. The diagnosis of PAPVR is typically made with cardiovascular imaging or catheterization; echocardiography may be sufficient for making the diagnosis in some cases. Surgical repair is the definitive treatment and focuses on redirecting the anomalous pulmonary veins into the left atrium.

What to Look For

- **Frequent infections**: Patients with symptomatic PAPVR often report a history of recurrent pulmonary infections such as pneumonia and bronchitis as well as fatigue and dyspnea.
- **Signs of right heart volume overload**: Assess for peripheral edema, increased jugular venous pressure (JVD), ascites, and hepatomegaly. These patients are more likely to have significant left-to-right shunts, and surgery is the definitive treatment.
- **The Scimitar sign on imaging:** Assess for a curvilinear vascular shadow along the right cardiac border caused by an anomalous right pulmonary vein draining into the inferior vena cava (IVC), resembling a Turkish sword or "scimitar."

Pearls For Urgent Care Management

- **Laboratory testing:** In the case of clinically significant fluid overload, laboratory testing including a metabolic panel to evaluate renal function and electrolytes is indicated.
- **Diuretic therapy:** consider starting low dose oral furosemide 20 mg daily for patients naïve to diuretics
- **Close follow-up** with primary care and/or cardiology, especially if starting diuretics in urgent care, is encouraged.
- **Cardiovascular imaging:** Patients with a scimitar sign noted on radiograph should be referred for cardiovascular imaging. ■

67-Year-Old Man With Dark Patch on Ankle

A 67-year-old man visits urgent care for a lesion on his right ankle that was first noticed 25 years ago. He reports that it has progressively grown larger over the past 6 months. The lesion is painless but is intermittently mildly pruritic. The patient denies any recent injury or past medical history besides chronic venous insufficiency. On dermatologic examination, a discrete dark brown plaque is noted posterior to the lateral malleolus with numerous surrounding spider veins, and deeper varicose veins are seen. A biopsy is taken, showing a proliferation of small, dilated vessels, fibrosis, and dermal edema.

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

Acknowledgment: Image and case presented by VisualDx (www.VisualDx.com/jucm).

Differential Diagnosis

- Cutaneous T-cell lymphoma
- Acroangiodermatitis
- Stasis dermatitis
- Kaposi sarcoma
- Pigmented purpuric dermatoses
- Lichen simplex chronicus

Diagnosis

The patient's diagnosis is acroangiodermatitis (AAD), also known as pseudo-Kaposi sarcoma. AAD is a benign, rare, vasoproliferative skin disorder that occurs on the lower limbs due to chronic venous hypertension and hypostasis, most often in the setting of chronic venous insufficiency or stasis dermatitis. The condition is visually similar to Kaposi sarcoma but is distinguished histologically and by its association with chronic venous disease.

What To Look For

- **History of venous insufficiency:** AAD is a complication of venous insufficiency and stasis dermatitis; it should be considered in patients with chronic venous disease who develop purpuric plaques.
- **Lesions on legs and feet:** Purpuric macules and papules may coalesce into large, purple-brown plaques on the extensor surfaces of the legs and dorsa of the feet.

Pearls for Urgent Care Management

- **Address underlying causes:** The mainstay of management is to address the underlying venous hypertension and chronic venous insufficiency.
- **Compression therapy:** Compression bandaging systems or compression stockings are the primary conservative treatment for stasis dermatitis and its complications, including AAD.
- **Lifestyle modifications:** Encourage exercise, frequent walks, leg elevation, avoidance of prolonged standing to decrease venous hypertension and reduce edema.
- **Skin care:** Gentle cleansing with mild, fragrance-free cleansers, and frequent use of bland emollients will limit dryness and itching.
- **Referral:** If stasis dermatitis and its complications (including AAD) do not improve with supportive care, referral to a vascular specialist is indicated for further evaluation and treatment. ■

84-Year-Old With Palpitations

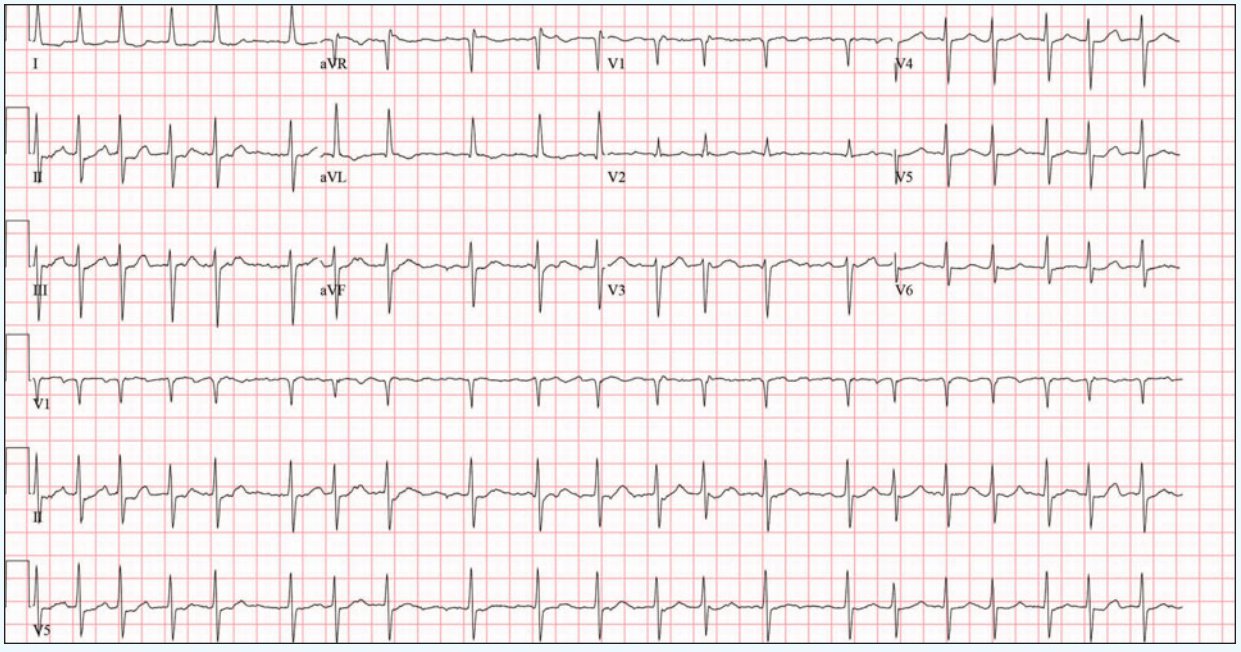


Figure 1: Initial ECG

An 84-year-old woman presents to urgent care with palpitations that have lasted for several hours. The patient is afebrile, slightly tachypneic on exam, with a blood pressure of 148/97 mm Hg. An ECG is obtained.

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

Case presented by Benjamin Cooper, MD, McGovern Medical School, The University of Texas Health Science Center at Houston, Department of Emergency Medicine.

Case courtesy of ECG Stampede (www.ecgstampede.com).

ECG STAMPEDE

Differential Diagnosis

- Atrial fibrillation
- Sinus tachycardia
- Supraventricular tachycardia
- Multifocal atrial tachycardia
- Atrial flutter

Diagnosis

The diagnosis in this case is atrial fibrillation with rapid ventricular response. The ECG reveals an irregularly irregular rhythm with narrow QRS complexes and a ventricular rate of 125 beats per minute. There are no discernible P waves.

Discussion

The presence of an irregularly irregular rhythm is indicated by R-R interval irregularity with no discernible pattern to the irregularity. The differential diagnosis for an irregularly irregular rhythm includes atrial fibrillation (most common), atrial flutter with variable conduction, and multifocal atrial tachycardia. Both atrial flutter and multifocal atrial tachycardia show organized atrial activity, whereas atrial fibrillation does not.

Atrial fibrillation is the most common arrhythmia, with an annual incidence in patients older than 65 years of 24 per 1,000 person-years.[1] There are many causes including valvular pathology, hypertension, heart failure, ischemia, electrolyte derangements, thyrotoxicosis, and excessive alcohol consumption.[2] Management is guided by identifying and treating primary pathology, rate or rhythm control, and stroke risk reduction.

Atrial fibrillation increases stroke risk approximately fivefold.[3] The mainstay of stroke prevention is anticoagulation. Tools like the CHA_2DS_2-VASc score can help with risk stratification and guide anticoagulation decisions.[2] Patients with onset of atrial fibrillation within 12-48 hours might be candidates for early cardioversion, and emergency department referral should be considered. In the absence of alternative primary pathology, rate control (ie, heart rate goal of less than 110 beats per minute) with atrioventricular nodal blocking agents can be pursued but should be performed in a monitored setting.[2,4,5] Patients with hemodynamic instability (eg, hypotension, altered mental status, ischemic chest pain, or acute heart failure) should be immediately cardioverted.

This patient was referred to an emergency department, where the providers elected to perform rate control.

What To Look For

- Irregularly irregular rhythms are defined by randomly changing R-R intervals over time (ie, no discernable pattern).
- The differential for irregularly irregular rhythms includes atrial fibrillation, atrial flutter with variable conduction, and multifocal atrial tachycardia.
- Early management of new-onset atrial fibrillation involves identification of underlying pathology and potentially rhythm or rate control.

Pearls For Initial Management, Considerations For Transfer

- Refer symptomatic patients or patients needing urgent identification and/or treatment to an appropriate emergency department.
- Place pads on the patient if unstable while awaiting transport.
- Cardioversion is the preferred strategy for hemodynamically unstable atrial fibrillation. ■

References

1. Khurshid S, Ashburner JM, Ellinor PT, et al. Prevalence and Incidence of Atrial Fibrillation Among Older Primary Care Patients. *JAMA Netw Open*. 2023;6(2):e2255838. doi:10.1001/jamanetworkopen.2022.55838
2. Joglar JA, Chung MK, Armbruster AL, et al. 2023 ACC/AHA/ACCP/HRS Guideline for the Diagnosis and Management of Atrial Fibrillation: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2024;149(1):e1-e156. doi:10.1161/CIR.0000000000001193
3. Wolf PA, Abbott RD, Kannel WB. Atrial fibrillation as an independent risk factor for stroke: the Framingham Study. *Stroke*. 1991;22(8):983-988. doi:10.1161/01.str.22.8.983
4. Andrade JG, Aguilar M, Atzema C, et al. The 2020 Canadian Cardiovascular Society/Canadian Heart Rhythm Society Comprehensive Guidelines for the Management of Atrial Fibrillation. *Can J Cardiol*. 2020;36(12):1847-1948. doi:10.1016/j.cjca.2020.09.001
5. Van Gelder IC, Rienstra M, Bunting K V, et al. 2024 ESC Guidelines for the management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS). *Eur Heart J*. 2024;45(36):3314-3414. doi:10.1093/eurheartj/ehae176

The Risks of Fully AI-Driven Revenue Cycle Management

Kimberly Hardin; Josh Rainey

As healthcare organizations look to modernize operations, the idea of a fully artificial intelligence (AI)-driven revenue cycle management (RCM) system is increasingly appealing in urgent care. Automating everything from coding and charge capture to claims submission and denial management promises efficiency, speed, and reduced labor costs. However, moving to a truly autonomous AI model introduces a range of risks that organizations must carefully evaluate before making the leap.

Financial Exposure and Revenue Integrity

One of the most immediate concerns with full AI RCM in urgent care is financial accuracy. AI systems rely on pattern recognition and training data, which means they can misinterpret clinical documentation. This can result in undercoding—which leads to lost revenue—or overcoding—which increases the risk of audits and penalties.

More concerning is the scale at which errors can occur. A human mistake might affect a small percentage of claims, but an AI-driven error can propagate across thousands of submissions before it is detected and resolved. Without strong monitoring, small inaccuracies can quickly become significant financial liabilities.

Additionally, many AI systems operate as "black boxes," making it difficult to understand how decisions are made. This lack of transparency complicates denial appeals and root-cause analysis, limiting an organization's ability to recover revenue effectively.

Compliance and Regulatory Challenges

Healthcare billing practices are heavily regulated, and the use of AI does not remove accountability. Urgent care organizations remain responsible for compliance with payer rules and federal regulations, including HIPAA.

AI systems generally need access to large volumes of patient data, raising concerns about maintaining data privacy and security—especially when third-party vendors are involved. Any mishandling of protected health information (PHI) can result in significant legal and financial consequences. Furthermore, auditors and payers expect clear justification for coding and billing decisions. If an AI system cannot provide explainable reasoning, organizations may find it challenging to defend their claims during audits. There is also the risk that AI may apply rules inconsistently, potentially creating piecemeal compliance gaps.

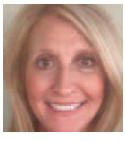
Operational Vulnerabilities

Implementing a fully AI-driven RCM system can create operational dependencies that are difficult to unwind. Vendor "lock-in" is a common issue, as deeply integrated platforms can be costly and complex to replace. Integration challenges also persist. AI systems must work seamlessly with electronic health records, clearinghouses, and payer systems. Misalignment in any of these areas can introduce errors or delays in the urgent care billing process.

System downtime presents another major risk to business operations. If the AI platform experiences outages or failures, the entire revenue cycle—from claim creation to reimbursement—can come to a halt.

Workforce Implications

While automation can reduce manual workload, it also introduces additional workforce challenges in the urgent care space. As AI takes over more functions, staff may lose foundational coding and billing expertise. This erosion of skills can make it harder to identify and correct errors when they occur. There may also be resistance to adopting AI tools, particularly if staff do not trust the system or feel displaced by it. At the same time, leaner teams may lack



Kimberly Hardin is Senior Vice President of RCM Operations for Experity. **Josh Rainey** is Vice President of RCM Strategic Initiatives for Experity.

the capacity to provide adequate oversight, increasing the likelihood that systemic errors go undetected.

Loss of Transparency and Control

Full AI RCM often means relinquishing a degree of control. Many systems offer limited customization, making it difficult to adapt to specific payer requirements or local workflow nuances. The lack of transparency in AI decision-making further compounds this issue. Without clear insight into how claims are processed, organizations may find it challenging to intervene at critical points or optimize performance over time.

Strategic Considerations

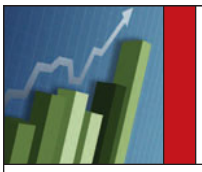
From a strategic perspective, the biggest risk may come from moving too far, too fast. Fully automating the revenue cycle without a phased approach can magnify existing inefficiencies and introduce new ones. AI systems may also struggle with the variability of payer rules, particularly in specialized or regionally complex markets. Organizations that expect immediate return on investment may be disappointed if increased denials, compliance risks, or rework offset the anticipated gains.

"From a strategic perspective, the biggest risk may come from moving too far, too fast."

Balanced Path Forward

While there are risks, it doesn't mean AI should be avoided in RCM. Instead, successful organizations tend to adopt a balanced approach. They use AI to augment—not replace—human expertise, focusing first on high-impact, lower-risk areas such as eligibility verification or claim scrubbing. Maintaining strong quality assurance processes, ensuring vendor transparency, and closely monitoring key metrics like denial rates and audit outcomes are essential. A human-in-the-loop model allows organizations to benefit from AI's efficiency while preserving control, accuracy, and compliance.

In the end, the goal is not full automation for its own sake, but a smarter, more resilient revenue cycle that combines the strengths of both technology and human judgment. ■

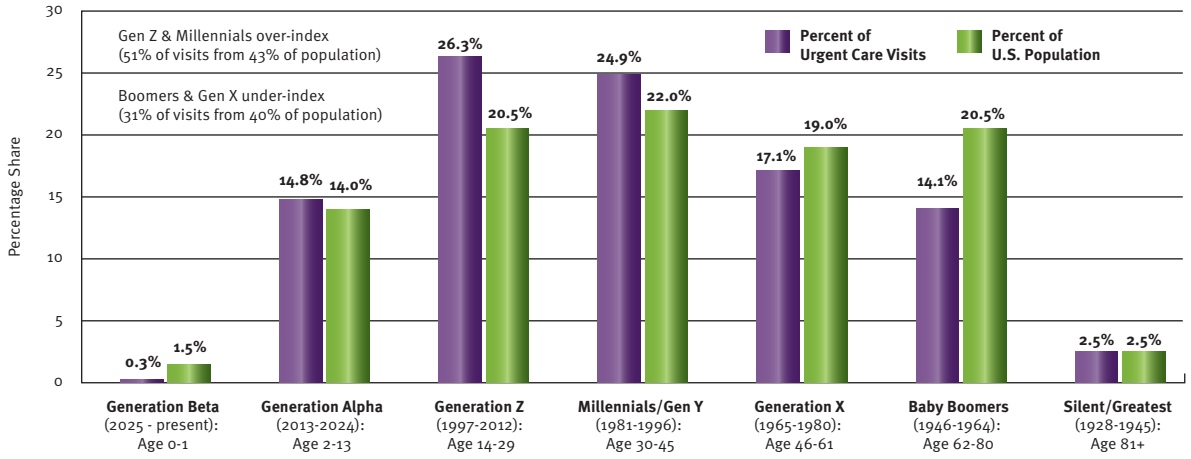


DEVELOPING DATA

Which Generation Uses Urgent Care The Most?

Alan A. Ayers, MBA, MAcc

URGENT CARE UTILIZATION vs U.S. POPULATION SHARE, BY GENERATION



Source: Experity EMR network visit data; U.S. Census Bureau population estimates. Totals sum to 100%.

Understanding generational demographics is critical for any organization because age drives consumer behavior.[1] While the U.S. population is distributed relatively evenly across adult cohorts,[2] urgent care utilization—based on an analysis of 2025 Experity EMR visit data conducted by Urgent Care Consultants—skews heavily toward younger adults.[3]

Gen Z and Millennials combined (born 1981–2012) account for more than 51% of all urgent care visits despite representing only 43% of the U.S. population—a combined over-index of nearly 20 percentage points. Baby Boomers (1946–1964) show the widest gap in the opposite direction, making up 20.5% of the population but only 14.1% of visits, reflecting the established primary care and specialist relationships that route older adults elsewhere. Gen X under-indexes modestly (17% of visits vs. 19% of population), while Gen Alpha, the Silent Generation, and newborn Gen Beta track closely to their population share.

This disparity confirms that urgent care has become the de facto primary care solution for digital natives who prioritize immediate access over long-term provider continuity. For operators, the insight is actionable on two fronts. First, it validates a strategy of high-visibility retail real estate, mobile-first registration, and digital engagement designed to appeal to tech-savvy patients seeking "on-demand" convenience rather than chronic disease management. Second, the 6.4-point Boomer gap signals an under-served opportunity — volume currently flowing to primary care offices, specialists, and emergency departments — that operators can pursue through chronic care integration, Medicare Advantage contracting, and occupational medicine partnerships. ■

Alan A. Ayers, MBA, MAcc is President of Urgent Care Consultants and Senior Editor of *The Journal of Urgent Care Medicine.*

References

1. Collage Group. *Generational Population Trends.* Collage Group InsightHub. Published January 1, 2025. Accessed January 24, 2026. https://insightshub.collagegroup.com
2. U.S. Census Bureau. *National Population Projections: 2020–2060.* Census.gov. Published November 2024. Accessed January 24, 2026.
3. Experity. *Proprietary Data: 28.1 Million Patient Visits from Experity EMR, January 1–December 31, 2025.* Machesney Park, IL: Experity; 2026. Analysis by Urgent Care Consultants.

EXPERITY®

SEE MORE PATIENTS. DELIVER BETTER CARE. OPTIMIZE REVENUE.

$3B+ REVENUE COLLECTED FROM URGENT CARE CLINICS IN THE LAST 3 YEARS

6,700+ URGENT CARE FACILITIES RELY ON EXPERITY FOR IMPROVED OUTCOMES

9 OF THE TOP 10 URGENT CARES PARTNER WITH EXPERITY

92M+ PATIENTS SEEN ON EXPERITY IN THE PAST 3 YEARS

Accelerate Your Growth with the #1 Urgent Care Platform

Unified. AI-Driven. Patient-Centered.

LEARN MORE

City MD Part of VillageMD · wellnow Urgent Care · HCA Healthcare · american family care The Right Care. Right Now. · CRH HEALTHCARE · fastpacehealth