

# JUCM<sup>®</sup>

THE JOURNAL OF **URGENT CARE** MEDICINE<sup>®</sup>

OCTOBER 2019  
VOLUME 14, NUMBER 1

**UCA** URGENT CARE  
ASSOCIATION

 COLLEGE OF  
URGENT CARE  
MEDICINE

www.jucm.com

The Official Publication of the UCA and CUCM

## ALSO IN THIS ISSUE

- cme** 17 **Case Report**  
Ruling Out Chronic Subdural Hematoma Based on an Unlikely Mechanism of Injury Puts Your Patients at Risk
- 32 **Health Law and Compliance**  
Liability and Influenza: Don't Let Flu Season Become 'Sue' Season
- 42 **Revenue Cycle Management**  
Keep Up with the ICD-10-CM Updates or Let Revenue Slip Through Your Fingers



**cme**  
Practice Management  
**Use Technology  
Right and the  
Future Is Yours**

CLINICAL **cme**

## Pink Eye: Is It Viral or Bacterial?

*Hold off on that script until  
you know for sure*

# Serenity Now!

Cough? Congestion? Fever? Times three? That's right!



A weary mom and her three restless and very fussy children just checked in to your clinic. Not surprisingly, your other patients and staff are growing weary and restless too.

No sweat, because there's a better way to test for Flu and RSV. With Sofia® Influenza A+B FIA, Sofia® RSV FIA and the Sofia 2 platform with Advance Result Technology, you can quickly and accurately test the whole family. Giving mom, her kids, your patients and your staff the right result at the right time — restoring Serenity Now!

**Sofia 2** with **Advance Result Technology**  
*Delivering accurate, objective and automated  
results in as few as three minutes!*



For information on how you can have results for Influenza A+B and RSV in as few as three minutes, call your Quidel account manager at **800.874.1517**, or visit us online at **quidel.com**.



**Sofia<sup>2</sup>**  
**Influenza A+B FIA**  
**RSV FIA**



## The MIPS Mess



It should not be terribly surprising to anyone that the massive government effort to incentivize quality has run into some serious challenges. Adjudicating quality has always been a briar patch of exceptions, confounders, red tape, and bias. To make matters worse, as with large government efforts, you end up with a whole bunch of unintended consequences that typically add cost and effort to the very practices that can handle it the least.

As we all learned in high school physics, every action has an equal and opposite reaction. And the Merit-based Incentive Payment System (MIPS) is a classic example of Newton's famous third law of motion. Consider the following:

### For every incentive, there is an equal and opposite disincentive

- MIPS only incentivizes Medicare visits, which already are heavily burdened by paperwork and sicker patients. With reimbursement typically lower than commercial rates and compliance risk higher, there already exists a disincentive to increase your Medicare mix
- MIPS has not demonstrated that the "juice is worth the squeeze," further disincentivizing the expansion of your Medicare mix
- The end result is a shift away from MIPS and Medicare entirely, reducing access and doing nothing for improving quality

### For every "winner" there is an equal and opposite "loser"

- Like most government programs, MIPS is complicated and time-consuming, and requires more sophisticated tools to track and additional personnel to manage
- Small practices with limited Medicare volume simply cannot justify the investment. They get punished under MIPS
- Large group practices and large health systems that have the infrastructure to support management of complex initiatives can invest in the people and resources to "win"
- Gaming the system, not quality improvement, becomes the goal. And the big systems are simply better at winning these games

*"It looks like MIPS will turn into another ill-fated penalty avoidance game that has no material impact on much of anything."*

### For every rule there is an equal and opposite loophole

- Because of the complex nature of healthcare delivery in this country, you cannot create a single ruleset for anything
- This creates the opportunity for exceptions; as the exceptions grow, the more participants seek to be one
- These loopholes dilute the program and declaw the penalties
- The MIPS mandate to be cost-neutral falls apart and...
- The incentive payments are reduced (making the whole program an expensive and exhausting exercise for nothing)

In July of this year, CMS released the preliminary data from the first full year of the program, and they trumpeted that 97% of 2018 participants will receive a payment adjustment in 2020. Problem is the bonus for these practices will max out at 1.88%. In addition, the aforementioned "cost-neutrality" will always curtail the bonuses unless the penalty pool increases. And this is unlikely to happen anytime soon if you believe, like I do, that the exceptions, delays, and protestations will continue to delay and dilute the objectives of the program.

Like many other well-intentioned government initiatives intent on improving care or reducing cost, MIPS appears to be headed for a predictable fate: more time, more hassle, more confusion, more changes, and more exceptions. All with little to no impact on cost or quality and limited incentives for performance. In fact, it looks like MIPS will turn into another ill-fated penalty avoidance game that has no material impact on much of anything.

Perhaps we could have predicted this using another of Newton's discoveries: What goes up, must come down! ■

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



# Get more of the story, faster.

Improve patient flow with on-site, syndromic gastrointestinal disease testing from BioFire.

Waiting hours or days for laboratory results for gastroenteritis can make patient management decisions complicated. The BioFire® FilmArray® Gastrointestinal (GI) Panel simultaneously tests for 22 of the most commonly associated pathogens related to gastroenteritis. And now, tests can be performed right in the office.\*

## Faster Diagnosis. Better Patient Care.

-  **Shorten Time to Results**  
With results in about one hour, you can diagnose patients faster and possibly reduce further medical follow-up.
-  **Improve Operational Efficiency**  
The BioFire GI Panel is easy-to-use, it takes just two minutes of hands-on time and 0.2 mL sample in Cary Blair.
-  **Prescribe the Right Treatment**  
Improve your Antimicrobial Stewardship Program by aiding in more accurate and timely diagnosis and potentially reducing unnecessary antibiotic prescriptions.



[biofiredx.com](http://biofiredx.com)

**BIO FIRE®**  
A BIOMÉRIEUX COMPANY

**Syndromic Testing: The Right Test, The First Time.**



**CLINICAL**

## 11 Evaluation of Infectious Conjunctivitis by Clinical Evaluation and Novel Diagnostics

When patients (or parents of patients) see puffy, pink, purulent eyes, they're not likely to wait for a primary care or ophthalmology appointment. They're heading to urgent care. Once pink eye is confirmed, the challenge for you is to discern as quickly as possible if the source is viral or bacterial, and to treat accordingly.

*Isabelle Dortonne, MD, Patrizia Colmenares, OD, Trevor Lyford, BA, OSC, and John Sheppard, MD, MMSc*

**CASE REPORT**

## 17 An Unusual Etiology of Chronic Subdural Hematoma: Case Report and Review of the Literature



Subdural hematomas are caused by a blow to the head in the majority of cases. Is the absence of such a blow reason enough to rule out CSDH, though?

*Joel Kaye, MS4 and Dana Tarina, MD*

**PRACTICE MANAGEMENT**

## 26 Competing for Patients in a Digitally Connected World



Younger workers today are all about the technology. So are many of your patients—and prospective patients. In fact, technology really can be a significant asset when used properly. Being able to use it to optimal effect is a great competitive advantage.

*Alan A. Ayers, MBA, MAcc*

**HEALTH LAW AND COMPLIANCE**

## 32 Employer Liability for Flu Infection



Urgent care providers and office staff work in a high-risk environment when it comes to communicable disease. Could you be liable if they get sick? As we approach the next flu season, be aware of your possible legal risk (and how to lower it) when employees are infected with influenza.

*Alan A. Ayers, MBA, MAcc*

**IN THE NEXT ISSUE OF JUCM**

Urgent care providers do not necessarily have expertise in obstetrics. That does not preclude them from seeing pregnant women who present with any number of complaints, of course. Whether a presentation is related to pregnancy or not, you need to be aware of issues that could be concerning for the mother-to-be and the child she's carrying. The challenge is, there's no single standard of care to guide urgent care practitioners in such cases. We'll offer some guidance in the November issue of *JUCM*.

**DEPARTMENTS**

- 6 Continuing Medical Education
- 9 From the UCA
- 22 Abstracts in Urgent Care
- 35 Insights in Images
- 42 Revenue Cycle Management Q&A
- 45 Developing Data

**CLASSIFIEDS**

- 44 Career Opportunities

**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>

## JUCM EDITOR-IN-CHIEF

**Lee A. Resnick, MD, FFAFP**  
Chief Medical and Operating Officer,  
WellStreet Urgent Care  
Assistant Clinical Professor, Case Western  
Reserve University,  
Department of Family Medicine

## JUCM EDITORIAL BOARD

**Alan A. Ayers, MBA, MAcc**  
CEO, Velocity Urgent Care

**Jasmeet Singh Bhogal, MD**  
Medical Director, VirtuaExpress Urgent Care  
President, College of Urgent Care Medicine

**Tom Charland**  
CEO, Merchant Medicine LLC

**Jeffrey P. Collins, MD, MA**  
Chief Medical Officer,  
MD Now Urgent Care  
Part-Time Instructor, Harvard Medical School

**Tracey Quail Davidoff, MD**  
Attending Physician  
Rochester (NY) Regional Health  
Immediate Care

**Thomas E. Gibbons, MD, MBA, FACEP**  
Lexington Medical Center Urgent Care  
President, Columbia Medical Society

**William Gluckman, DO, MBA, FACEP,  
CPE, CPE, FCUCM**  
CEO, FastER Urgent Care

**David Gollogly, MBChB, FCUCP  
(New Zealand)**  
Chair, Royal New Zealand College of  
Urgent Care

**Glenn Harnett, MD**  
Principal, No Resistance Consulting Group  
Trustee, UCA Urgent Care Foundation

**Toni Hogencamp, MD**  
Regional Medical Director, PM Pediatrics  
Founding Member, Society for Pediatric Urgent  
Care

**Sean M. McNeeley, MD, MD, FCUCM**  
Network Medical Director, University  
Hospitals Urgent Care  
Clinical Instructor, Case Western Reserve  
University School of Medicine  
UCA President

**Shailendra K. Saxena, MD, PhD**  
Professor, Creighton University  
Medical School

**Elisabeth L. Scheufele, MD, MS, FAAP**  
Physician, Massachusetts General Hospital  
Chelsea Urgent Care  
Physician Informaticist

**Laurel Stoimenoff, PT, CHC**  
CEO, Urgent Care Association

**Joseph Toscano, MD**  
Chief, Emergency Medicine  
Medical Director, Occupational Medicine  
San Ramon Regional Medical Center  
Board Member, Board of Certification in  
Urgent Care Medicine

**Ben Trotter, DO**  
Medical Director of Emergency Services  
Adena Regional Medical Center

**Janet Williams, MD, FACEP**  
Medical Director, Rochester Regional Health  
Immediate Care  
Clinical Faculty, Rochester Institute of  
Technology

## JUCM ADVISORY BOARD

**Kenneth V. Iserson, MD, MBA, FACEP,  
FAAEM**  
The University of Arizona

**Peter Rosen, MD**  
Harvard Medical School

**Martin A. Samuels, MD, DSc (hon),  
FAAN, MACP**  
Harvard Medical School

**Kurt C. Stange, MD, PhD**  
Case Western Reserve University

**Robin M. Weinick, PhD**  
RTI International

## UCA BOARD OF DIRECTORS

**Richard Park, MD**  
President

**Sean McNeeley, MD**  
Immediate Past President

**Shaun Ginter, MBA, FACHE**  
President-Elect

**Mike Dalton, MBA, CPA**  
Treasurer

**Lou Ellen Horwitz, MA**  
Secretary

**Tom Charland**  
Director

**Joe Chow, MD, MBA**  
Director

**Lori Japp, PA**  
Director

**Max Lebow, MD, MPH**  
Director

**Damaris Medina, Esq**  
Director

**Armando Samaniego, MD, MBA**  
Director

**Jeanne Zucker**  
Director

**Laurel Stoimenoff, PT, CHC**  
CEO

# JUCM®

## EDITOR-IN-CHIEF

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

**EXECUTIVE EDITOR**  
**Harris Fleming**  
hfleming@jucm.com

**ASSOCIATE EDITOR, PRACTICE MANAGEMENT**  
**Alan A. Ayers, MBA, MAcc**

**ASSOCIATE EDITOR, CLINICAL**  
**Michael B. Weinstock, MD**

**ASSOCIATE EDITOR, PEDIATRICS**  
**David J. Mathison, MD, MBA**

**CONTRIBUTING EDITORS**  
**Cornelius O'Leary, Jr., MD**  
**David E. Stern, MD**

**ART DIRECTOR**  
**Tom DePrenda**  
tdeprenda@jucm.com



185 State Route 17, Mahwah, NJ 07430

## PUBLISHER AND ADVERTISING SALES

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

**CLASSIFIED AND RECRUITMENT ADVERTISING**  
**Samantha Rentz**  
samantha.rentz@communitybrands.com • (727) 497-6565 x3322

## 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 and the College of Urgent Care Medicine, *JUCM* seeks to provide a forum for the exchange of ideas regarding the clinical and business best-practices for running an urgent care center.

## Publication Ethics & Allegations of Misconduct, Complaints, or Appeals

*JUCM*® expects authors, reviewers, and editors to uphold the highest ethical standards when conducting research, submitting papers, and throughout the peer-review process. *JUCM* supports the Committee on Publishing Ethics (COPE) and follows its recommendations on publication ethics and standards (please visit <http://publicationethics.org>). *JUCM* further draws upon the ethical guidelines set forth by the World Association of Medical Editors (WAME) on its website, [www.wame.org](http://www.wame.org). To report any allegations of editorial misconduct or complaints, or to appeal the decision regarding any article, email the Publisher, Stuart Williams, directly at [swilliams@jucm.com](mailto:swilliams@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.

## Copyright and Licensing

© Copyright 2019 by Braveheart Group, LLC. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without written permission from the Publisher. For information on reprints or commercial licensing of content, please contact the Publisher.

## Address Changes

*JUCM* printed edition is published monthly except for August for \$50.00 by Braveheart Group LLC, 185 State Route 17, Mahwah, NJ 07430. Standard postage paid, permit no. 372, at Midland, MI, and at additional mailing offices. POSTMASTER: Send address changes to Braveheart Group LLC, 185 State Route 17, Mahwah, NJ 07430. Email: [address.change@jucm.com](mailto:address.change@jucm.com)



# JUCM CONTRIBUTORS

Conjunctivitis—more commonly (and fearfully, for parents) known as pink eye—can be a deceptively simple diagnosis. More specifically, once the diagnosis is made it's incumbent on the clinician to determine whether the source of the infection is bacterial or viral. Armed with that information, the next crucial step is to choose the appropriate treatment—which, if it's viral in nature, should *not* include antibiotics, of course.

Urgent care is often a first stop for patients and parents who want to know as soon as possible whether their condition is contagious and, more importantly, what can be done about it. That requires both clinical acumen and access to the right tests. This issue's cover story, Evaluation of Infectious Conjunctivitis by Clinical Evaluation and Novel Diagnostics (page 11), offers insights into exactly that.



The authors are all well suited to this topic. **Isabelle Dortonne, MD** is a Resident in the Eastern Virginia Medical School Department of Ophthalmology. **Patrizia Colmenares, OD** is an ocular disease optometry Resident. **Trevor Lyford, BA, OSC** is an ophthalmic scribe



and technician with Virginia Eye Consultants. And **John Sheppard, MD, MMSc** is president of Virginia Eye Consultants and professor of ophthalmology at Eastern Virginia Medical School.

Subdural hematomas can also be deceptively simple, in a sense. If that's the diagnosis, in many cases it can be correctly presumed that the origin was a blow to the head. That's not always the case, though, and making an incorrect assumption can lead you to start down the wrong therapeutic path. **Joel Kaye, MS4** and **Dana Tarina, MD** explain the dynamics of one such case in An Unusual Etiology of Chronic Subdural Hematoma: Case Report and Review of the Literature (page 17).



Mr. Kaye is a medical student at Rutgers Robert Wood Johnson Medical School. Dr. Tarina is an assistant professor at Hackensack Meridian Health School of Medicine, Department of Medicine, Jersey Shore University Medical Center.



And while the clinical team is tackling clinical challenges every day, the operations side is fighting to maintain and build strong community presence and a robust flow of patients. The thing is, so are all the other urgent care centers in town. Advances in

practice technology offer all kinds of advantages—provided you know how to leverage them. **Alan A. Ayers, MBA, MAcc** offers sound advice on how to do that in Competing for Patients in a Digitally Connected World (page 26). Being CEO of Velocity Urgent Care and practice management editor of *The Journal of Urgent Care Medicine*, we suspect he has good insights to share.

Mr. Ayers also employs his vast experience in addressing a thorny question: Are urgent care employers liable if workers become sick due to working in the urgent care center? This concern will be growing in the coming weeks as we enter the height of flu season. Read Employer Liability for Flu Infection on page 32 to see if you understand what your risk could be.

## Also in This Issue

We welcome a new author with this issue's Abstracts in Urgent Care (page 22). **Cornelius O'Leary, MD**, an urgent care physician with Emergency Care Dynamics, has been a very supportive peer reviewer of *JUCM* content for some time. In his first foray as a contributor, he offers urgent care-relevant reviews of articles on the effects of e-cigarettes, children with migraines, the latest on HPV vaccination, and new information on Lyme disease.



Finally, as always, we're grateful to **David Stern, MD** for keeping *JUCM* readers up to speed on current revenue cycle management issues. This month, he offers essential information on the latest ICD-10-CM updates for 2020. Miss that and you'll be poorer for it (literally). Dr. Stern is the CEO of Experity (formerly DocuTAP and Practice Velocity).



## Thank You to Our Peer Reviewers

We rely on the urgent care professionals who serve as peer reviewers to ensure the content we publish each month is relevant and unbiased. This month, we thank:

- **Barbara Chambers**
- **Luis De La Prida**
- **John Reilly, DO**
- **Ben Trotter, DO**
- **Janet Williams, MD, FACEP**

If you would like to support the journal—and your colleagues—by reviewing articles, please send an email with your CV to [editor@jucm.com](mailto:editor@jucm.com)



# CONTINUING MEDICAL EDUCATION

**Release Date:** October 1, 2019  
**Expiration Date:** September 30, 2020

## Target Audience

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

## Learning Objectives

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

## Accreditation Statement



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

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

## Planning Committee

- **Lee A. Resnick, MD, FAAFP**  
*Member reported no financial interest relevant to this activity.*
- **Michael B. Weinstock, MD**  
*Member reported no financial interest relevant to this activity.*
- **Alan A. Ayers, MBA, MAcc**  
*Member reported no financial interest relevant to this activity.*

## Disclosure Statement

The policy of the Urgent Care Association CME Program (UCA CME) requires that the Activity Director, planning committee members, and all activity faculty (that is, anyone in a position to control the content of the educational activity) disclose to the activity participants all relevant financial relationships with commercial interests. Where disclosures have been made, conflicts of interest, real or apparent, must be resolved. Disclosure will be

made to activity participants prior to the commencement of the activity. UCA CME also requires that faculty make clinical recommendations based on the best available scientific evidence and that faculty identify any discussion of “off-label” or investigational use of pharmaceutical products or medical devices.

## 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.
4. Complete the evaluation.

Your credits will be recorded by the UCA CME Program and made a part of your cumulative transcript.

## Estimated Time to Complete This Educational Activity

This activity is expected to take 3 hours to complete.

## Fee

There is an annual subscription fee of \$145.00 for this program, which includes up to 33 *AMA PRA Category 1 Credits™*.

## Email inquiries to [info@jucmce.com](mailto:info@jucmce.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 the Urgent Care Association nor 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. The Urgent Care Association 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.jucm.com/cme/](http://www.jucm.com/cme/). Quiz questions are featured below for your convenience. This issue is approved for up to 3 AMA PRA Category 1 Credits™. Credits may be claimed for 1 year from the date of this issue.

## Evaluation of Infectious Conjunctivitis by Clinical Evaluation and Novel Diagnostics (page 11)

### 1. It is important to differentiate between bacterial and viral conjunctivitis in order to:

- a. Prevent onset of acute angle closure glaucoma
- b. Reduce overuse of antibiotics
- c. Collect appropriate fees from the patient
- d. Ensure high patient satisfaction scores

### 2. Which of the following is unlikely to transmit adenovirus?

- a. Contaminated surfaces
- b. Fomites
- c. Eyewear, including sunglasses
- d. Hands

### 3. Severe pain, light sensitivity, and reduced vision could be signs of:

- a. Uveitis
- b. High intraocular pressure
- c. Corneal ulcer
- d. Herpetic corneal disease
- e. All of the above

## An Unusual Etiology of Chronic Subdural Hematoma: Case Report and Review of the Literature (page 17)

### 1. Direct head trauma is the cause of chronic subdural hematoma (CSDH) in 50%-70% of cases. Other causes may include:

- a. Chronic alcoholism
- b. Vascular malformations
- c. Coagulopathy
- d. All of the above

### 2. The American College of Radiology recommends neuroimaging for patients over age 50 with new nontraumatic headache associated with which of the following?

- a. Immunosuppression
- b. Exertion
- c. Sexual activity
- d. Neurologic deficit
- e. All of the above

### 3. All of the following are concerning causes of headache, except:

- a. Age over 50
- b. Associated rhinorrhea and cough
- c. Immunosuppression
- d. New type of headache
- e. Anticoagulation

## Competing for Patients in a Digitally Connected World (page 26)

### 1. Automation tools that could help staff reclaim training, coaching, and patient care time include:

- a. Barcoding systems to scan, track, and order medical supplies
- b. Automated scheduling system to assure appropriate staffing levels during hours of operation and peak patient times/lulls
- c. Payroll and timecard automation to simplify time and attendance tracking, increase accuracy, and eliminate human error
- d. All of the above
- e. All of the above except b

### 2. A robust EMR will have the each of following features except:

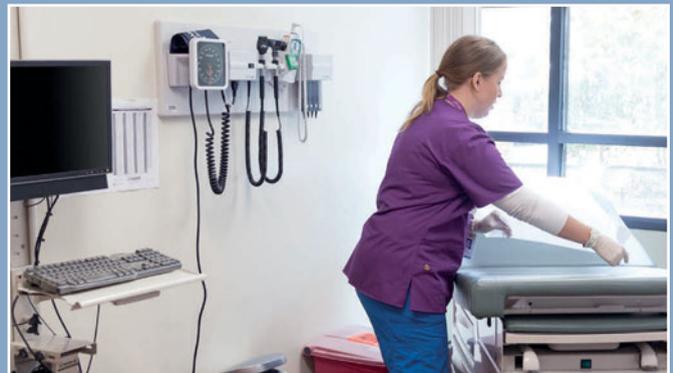
- a. Documentation templates
- b. Coding engine
- c. Schedule and coordinate referrals
- d. A virtual timeclock for staff to log their hours

### 3. Healthcare technology vendors have created full-featured online patient portals that enable patients to:

- a. View their HIPPA-protected personal health information remotely
- b. Communicate with healthcare providers and facilities
- c. View their private health records and patient history
- d. View lab and diagnostic test results
- e. All of the above

# The health of your patients starts with the health of your Urgent Care Center.

*We can help.*



## McKesson Delivers

At McKesson Medical-Surgical, you can count on us to deliver the whole package – the right products and the right solutions to help you meet today’s challenges, while preparing for tomorrow’s.



*More Products,  
More Choice*



*Distribution You  
Can Count On*



*Solutions to Enhance  
Your Business*



*Support Every  
Step of the Way*

Let us help you move your business forward.

**[mms.mckesson.com/urgent](https://mms.mckesson.com/urgent) | 866.McK.ANSWer (866.625.2679)**

# A Common Purpose—UCA as Your Wingman

■ LAUREL STOIMENOFF, PT, CHC

I was once privileged to fly as a guest on a KC-135 refueler training mission. It departed in the early evening and as I looked below with the sun reflecting off the red rocks of Sedona, AZ, I saw an F-16 approaching in the distance. I was in complete awe of its speed as it joined and ultimately engaged with the KC-135 for refueling. We subsequently returned to the Air Guard base with the F-16 in wingman formation. Peering out that aircraft at the F-16's lights as night fell is an image I will never forget.

At the time, I was in an operational leadership position with a team that spanned a large western region, so the wingman concept resonated as a business strategy. Col. Lawrence O. Roche wrote that being a good wingman is anchored in *personal commitment*. They must have a good moral compass, keep their head on a swivel searching for any signs of trouble, and learn how to lead as well as follow.<sup>1</sup>

The Urgent Care Association (UCA) aspires to serve as your wingman. Our members are at the core of all we do and we and set the goal that you must be better because we exist.

## Teamwork

When researching the role of the wingman in the military, I came across countless stories where the wingman did their job of protecting its lead aircraft and a few times when the lead aircraft had to support the wingman.

This symbiosis is how I look at the Association's relationship with our members. Without your support we do not exist. And in return, we support members through advocacy, education, research, benchmarking, and ongoing efforts to advance the industry. We monitor trends, threats, opportunities, and the competition.



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

## Coming Together as a Community

We admit that UCA staff cannot do it all. We count on the boards of the Association, the College, the Foundation, and the Urgent Care Services Corporation for support. We also tap committees, sections, thought leaders, and experts. While the industry continues to grow, we remain a small community in the healthcare delivery juggernaut. We therefore see serving as a connector for our members as an essential function.

This is our first year in over a decade without a fall convention, eliminating one opportunity for face-to-face networking. Therefore, we are committed to elevating those opportunities for our members when we convene May 3-6 in Las Vegas for the UCA2020 convention. Our job is to facilitate access to an army of wingmen for success, and what better place than our one and only national convention that's ours and ours alone?

## Team—We Want to Be Your Rolodex

My husband owns a toolbox. He's not a real handyman so he tells friends that when you open it up, you'll only find a Rolodex replete with a myriad of phone numbers and contact information for reliable resources. We strive to be your virtual Rolodex. For those who reach out seeking information, support, or simply to let us know what you are seeing on the horizon, we thank you. If you aren't, we'd ask that you try us. Pick up the phone, send an email, or send a question or comment via the "Contact Us" feature on the website ([www.ucaoa.org](http://www.ucaoa.org)). Our team commits to getting back to you in a timely manner, as well as living up to Col. Roche's expectations: acting with integrity, keeping our head on a swivel, and being not only followers, but also leaders.

Our nation's military may be the best at optimizing the efforts of a team, and the wingman concept in particular. They've got each other's back. And we have yours. ■

## Reference

Roche LO. What does it mean to be a 'wingman?' U.S. Air Force. Available at <https://www.af.mil/News/Commentaries/Display/Article/142238/what-does-it-mean-to-be-a-wingman/>. Accessed August 29, 2019.



# Heard the buzz? Ask questions. **Get answers.**

[questions@experityhealth.com](mailto:questions@experityhealth.com)

---

We're consolidating our urgent care solutions under one new brand.  
Want to find out what that means for you? **Reach out to get answers.**

**EXPERITY**

We power the patient centered healthcare revolution.



# Evaluation of Infectious Conjunctivitis by Clinical Evaluation and Novel Diagnostics

**Urgent message:** Urgent care is often the first stop for patients experiencing acute eye complaints, including conjunctivitis. The capability to accurately distinguish between infectious conjunctivitis of a viral nature vs that of a bacterial nature is essential to administering appropriate treatment and avoiding inappropriate use of antibiotics.

ISABELLE DORTONNE, MD, PATRIZIA COLMENARES, OD, TREVOR LYFORD, BA, OSC, and JOHN SHEPPARD, MD, MMSc

## Introduction

The vast majority of acute conjunctivitis is viral in nature, with 65% to 90% due to adenoviruses.<sup>1</sup> Despite this, a study by University of Michigan's Kellogg Eye Center found that 58% of patients with a pink eye diagnosis filled a prescription for antibiotics.<sup>2</sup> Further, a surprisingly large number of prescriptions for conjunctivitis are antibiotic-corticosteroid combinations. Primary care and urgent care providers are at the front lines of conjunctivitis diagnosis, evaluating up to 83% of patients initially presenting to a non-eyecare provider.<sup>2</sup> Eye complaints make up approximately 3% of all urgent care visits.<sup>3</sup> It is important to differentiate between conjunctivitis of bacterial vs viral vs other etiology in order to manage these conditions correctly and reduce the overuse of antibiotics.

## History and Physical Exam

Differentiating between bacterial and viral conjunctivitis can be difficult because most of the signs and symptoms tend to be largely nonspecific and may overlap.

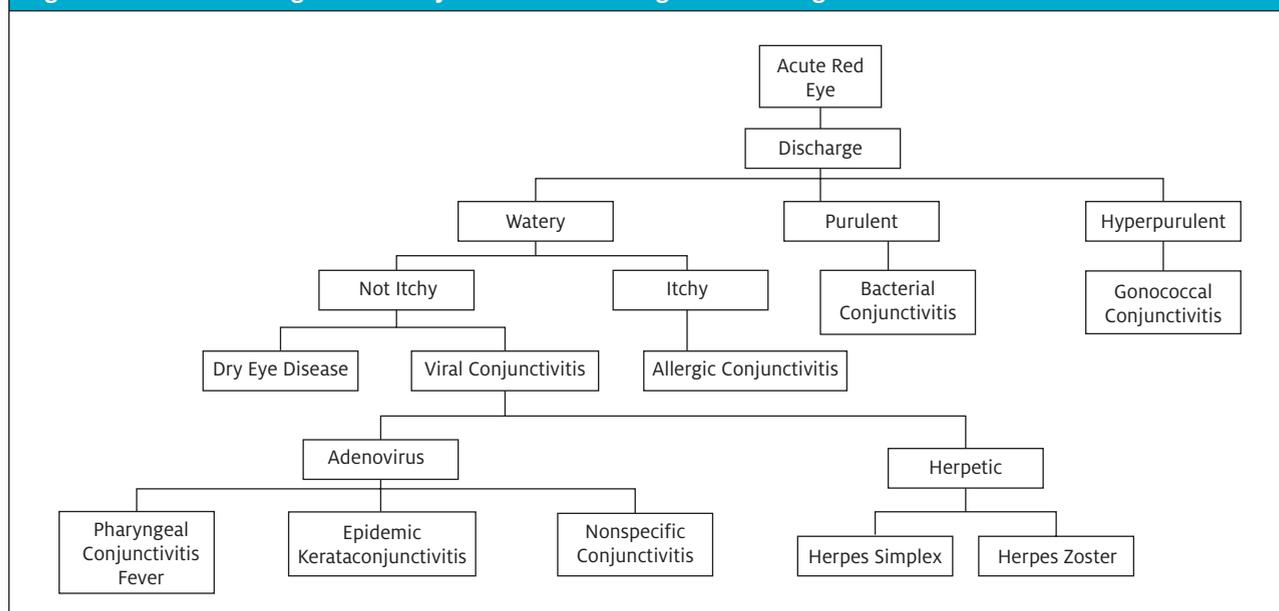
Key questions to consider:

1. When did symptoms begin?
  - a. In most cases, acute forms of viral and bacterial conjunctivitis tend to be self-limiting and will resolve on their own in 7-14 days. Cases lasting longer should seek evaluation by an ophthalmologist.
2. Has the patient had an upper respiratory infection (URI) recently?
  - a. A recent URI and palpable preauricular or sub-



©medicalimages.com

Isabelle Dortonne, MD is a Resident at Eastern Virginia Medical School, Department of Ophthalmology. Patrizia Colmenares, OD is a Resident in Ocular Disease Optometry. Trevor Lyford, BA, OSC is an ophthalmic scribe and technician with Virginia Eye Consultants. John Sheppard, MD, MMSc is President of Virginia Eye Consultants and Professor of Ophthalmology at Eastern Virginia Medical School. Dr. Dortonne, Dr. Colmenares, and Mr. Lyford have no relevant financial relationships with any commercial interests. Dr. Sheppard has financial interests in TearLab, Johnson & Johnson Vision, Quidel, Allergan, Bausch + Lomb, Topcon, and Novartis.

**Figure 1. Differential Diagnosis of Conjunctivitis Presenting with Discharge**

mandibular lymph nodes are suggestive of viral etiology.

3. Contact with any other at-risk groups or infected friends/co-workers/family members?
  - a. Viral conjunctivitis is extremely contagious, with a transmission rate between 10% and 50%.<sup>4</sup> It can be transmitted via fomites contaminated with ocular secretions or via respiratory secretions.
  - b. One study found that adenovirus spread to 50% of family members or those in close contact with the infected individual.<sup>4</sup>
  - c. Bacterial conjunctivitis can be spread through direct contact with ocular secretions or contaminated fomites.
4. Recent infection in the other eye?
  - a. Infected individuals can shed the virus for up to 14 days after the onset of symptoms, with the virus able to survive on inanimate surfaces for days.
  - b. Co-infection of the other eye during the 14-day shedding period is common.
5. Type of discharge?
  - a. Watery discharge tends to be associated with viral or allergic conjunctivitis, and purulent discharge with bacterial conjunctivitis.
6. Does the eye itch?
  - a. Itching is a common symptom in allergic conjunctivitis, although pruritus can be present to a lesser degree in viral conjunctivitis.
7. Does the patient wear contact lenses?

- a. Does the patient sleep in contact lenses or wear contacts for greater than 8 hours a day?
- b. When was the patient's most recent contact lens fitting?
- c. Contact lens abuse and overuse can lead to secondary causes of red eyes not associated with infection, or to sight-threatening infectious keratitis.

### Red Flag Symptoms

If the patient presents with severe pain, light sensitivity, or reduced vision consider referral to ophthalmology. These symptoms could be signs of uveitis, high intraocular pressure, corneal ulcer, or, herpetic corneal disease. Patients with uveitis require management by an eyecare provider with topical steroids and diligent diagnostic testing.

Those with a corneal ulcer (keratitis) will need topical/oral antibiotics, oral antivirals, or topical/oral antifungals, depending on etiology. When in doubt, or vision is significantly reduced, an ophthalmology referral should immediately be considered.

Narrowing the list of red eye differentials solely on presentation without the use of diagnostics is a daunting task. The above descriptions are examples of classic presentations, but we all know that real-world presentations are not always as clear cut.

### Bacterial Conjunctivitis

Bacterial conjunctivitis classically presents as a red, irritated eye with a purulent white-yellow or green dis-

charge, foreign body sensation, conjunctival papillae and chemosis. One week of topical antibiotics is generally indicated. Hyperacute conjunctivitis with excessive purulent yellow-green discharge accompanied by marginal keratitis, conjunctival papillae, and preauricular adenopathy is suggestive of gonococcal conjunctivitis.<sup>1</sup> Treatment entails aggressive topical antibiotics (eg, bacitracin or gentamicin), irrigation to prevent accumulation of purulent material potentially damaging to the cornea, as well as appropriate systemic treatment (ceftriaxone and coverage for chlamydia with azithromycin or doxycycline).

**Viral Conjunctivitis**

**Herpetic Infection**

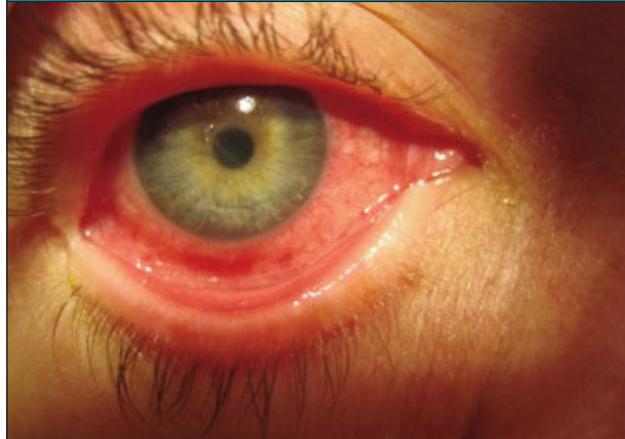
Viral conjunctivitis due to a herpetic infection can present very similarly to adenoviral conjunctivitis. Herpes simplex infection presents with a red, irritated eye, follicular conjunctivitis and possibly corneal dendrites. Herpes zoster ophthalmicus will usually present with a vesicular rash that resembles trigeminal dermatome. Patients with a rash that extends to the tip of their nose in the nasociliary branch distribution of the ophthalmic portion (V1) of the trigeminal nerve, known as Hutchinson’s sign, are more likely to have ocular involvement. The treatment for herpetic infections involves topical and/or oral antiviral medication. It is important to note that in cases of herpetic conjunctivitis/keratitis, steroid use will prolong the infection and will cause an increase in viral load leading to greater complication risks.

**Adenovirus**

Viral conjunctivitis due to adenovirus can be broken down into three main categories: pharyngeal conjunctival fever, epidemic keratoconjunctivitis (EKC), and nonspecific conjunctivitis. Adenoviral conjunctivitis classically presents as an acute red eye with watery discharge and lymphadenopathy. Pharyngeal conjunctival fever presents with similar findings as well as pharyngitis and fever. EKC can present as the most severe of the three forms, with classic signs as well as pseudomembranes, subepithelial infiltrates from keratogenic serotypes, and conjunctival hemorrhage.

EKC, caused most commonly by adenoviral serotypes 8, 19, and 37, is the only adenoviral syndrome associated with corneal inflammation. Keratitis in EKC characteristically presents with multiple corneal infiltrates in the subepithelial stroma beginning 1 to 2 weeks after onset of the conjunctivitis. The corneal infiltrates of EKC cause significant ocular morbidity;

**Figure 2.**



Adenoviral conjunctivitis with diffuse bulbar and inferior tarsal conjunctival injection, serious discharge, irregular corneal reflex and corneal epitheliopathy, ipsilateral pre-auricular lymphadenopathy, and pharyngitis. (Photo courtesy of Robert Sambursky, MD.)

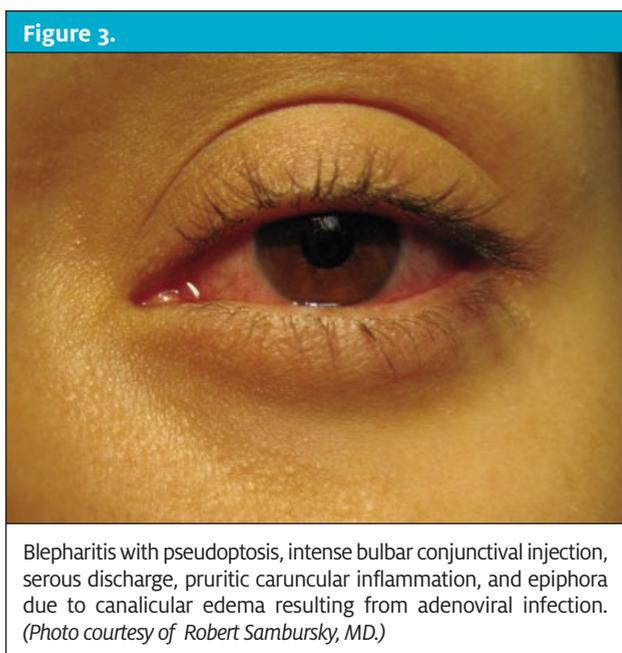
**Table 1.**

	Pathogens	Presentation
<b>Bacterial Conjunctivitis</b>	<i>Staphylococcus aureus</i> , (most common), <i>Staphylococcus epidermidis</i> , <i>Streptococcus pneumoniae</i> and <i>Haemophilus influenzae</i>	Red eye, purulent or mucopurulent discharge with matting and adherence of lids, chemosis <sup>5,10</sup>
<b>Gonococcal Conjunctivitis</b>	<i>Neisseria gonorrhoeae</i>	Hyperacute conjunctivitis with excessive yellow-green purulent discharge, conjunctival injection, chemosis, lid swelling, tender preauricular lymphadenopathy accompanied by genitourinary disease <sup>6,10</sup>

reduced vision, photophobia, and foreign body sensation may persist for months to years after infection.<sup>5</sup>

There is no gold standard of treatment for adenoviral conjunctivitis due to its self-limiting nature. Treatment is supportive with artificial tears, cool compresses, and as needed antihistamine drops. Antibiotics are not effective in treating adenovirus and should only be used when a bacterial co-infection is suspected. Systemic antivirals are not effective for adenoviral conjunctivitis.

Table 2. Viral Conjunctivitis	
Herpetic	Presentation
Herpes Zoster	Acute vesicular dermatomal skin rash along the first division of the 5 <sup>th</sup> cranial nerve, injection, with or without corneal involvement <sup>1,10</sup>
Herpes Simplex	Conjunctival injection with acute unilateral follicular conjunctivitis, with or without corneal dendrites or geographic ulceration <sup>1,10</sup>



There are current ongoing clinical trials regarding the use of povidine iodine and topical ganciclovir in treatment.<sup>7</sup> In severe cases of EKC, pseudomembranes should be removed with forceps or a cotton swab and careful topical corticosteroids should be applied to prevent scarring.<sup>1</sup> Referral to an ophthalmologist to manage the corticosteroids is warranted. Patients are considered contagious while the eye is still injected and tearing. During this time period, strict hand hygiene precautions should be employed, and the patient should stay home from work and school while contagious.

### Diagnosics

When assessing a patient with acute conjunctivitis, it is important to keep in mind that adenovirus makes up the majority of cases of viral conjunctivitis. Currently, most diagnoses of adenoviral conjunctivitis are made

clinically. It is estimated that clinical diagnoses have only 40%–72% accuracy when compared to traditional laboratory diagnostics. Viral cell culture with immunofluorescence assay and PCR are cumbersome, expensive, and time consuming.<sup>7</sup>

Rapid diagnostic tests and culture are among the most common procedures in urgent care centers, done at 49.2% of patient visits with a total of 87.1 million performed in 2018.<sup>3</sup> As such, advancement in rapid testing for conjunctivitis, especially concerning adenovirus, could be expected to have ready application in the urgent care setting. The most recent such test, QuickVue Adenoviral Conjunctivitis Test (Quidel), formerly RPS AdenoPlus, is a second-generation test built upon the RPOS Adeno Detector, with enhanced sensitivity and specificity. Administration is simple, and can be performed easily by ancillary staff with results within 10 minutes. It utilizes an immunoassay test strip, which comes into direct contact with the sample antigen. It recognizes viral hexon antigen from all 55 subtypes of adenovirus. A recent prospective study of 128 patients with clinical diagnosis of acute viral conjunctivitis has demonstrated high sensitivity (85%–90%) and specificity (96%–98%) when compared to current standard diagnostic methods of cell culture and PCR.<sup>7</sup>

### Implications of Novel Diagnostic Testing

Morbidity from adenoviral conjunctivitis can span from weeks to years, with discomfort and decreased vision from varying levels of inflammation. In severe conditions, especially in which diagnosis and thus initiation of corticosteroids are delayed, a patient can develop permanent dry eyes and scarring of the conjunctiva and cornea. Nearly 20% of scripts filled for conjunctivitis are an antibiotic-corticosteroid combination. However, unless warranted due to signs of inflammatory infiltrates or membranes such as in EKC, corticosteroids are contraindicated in viral conjunctivitis because they can lengthen the course of the disease and may reactivate latent herpes simplex virus.<sup>2</sup>

Routine use of effective rapid tests may have the potential to inform sound prescribing decisions and ultimately curb growth of antibiotic resistance in the community and decrease ocular surface toxicity from antibiotic use. Moreover, the U.S. healthcare system could potentially save \$430 million annually with accurate diagnosis of adenoviral conjunctivitis.<sup>8</sup> When accounting for indirect costs from lost wages and disability, diagnosed cases of bacterial conjunctivitis cost the U.S. health system up to an estimated \$857 million a year.<sup>9</sup>

Table 3. Viral Conjunctivitis		
Adenovirus	Serotype	Presentation
Pharyngeal Conjunctival Fever	3, 7 Less commonly: 2, 4, 14	Bilateral conjunctivitis, high fever, pharyngitis, preauricular lymph node enlargement <sup>5,10</sup>
Epidemic Keratoconjunctivitis	8,19,37	Unilateral watery discharge, hyperemia, chemosis, ipsilateral lymphadenopathy with subepithelial infiltrates appearing on the cornea 4-7 days after initial symptoms <sup>5,10</sup>
Nonspecific Conjunctivitis	1-11, 13, 15, 17, 19, 20-30, 32, 33, 36-39, 42-49	Unilateral, watery discharge, follicles on palpebral conjunctiva, preauricular lymph node enlargement <sup>6,10</sup>

### Prevention

Contaminated surfaces, fomites, and hands are the main modes of adenovirus transmission. Frequent careful hand washing and disinfection of contaminated objects thus become paramount preventive efforts. Adenovirus is resistant to many types of disinfectants so it is crucial that specific “virucidal” agents are used. Note that 70% isopropyl alcohol is ineffective against adenovirus.<sup>11</sup> Ethanol-based formulations have better effectivity showing 99.99% viral inactivation after 30 seconds.<sup>12</sup>

Surfaces should be cleaned with EPA-registered disinfectants.<sup>13</sup> Ideally, outpatients should not be put in the waiting room and should preferably be seen immediately, if feasible. Waiting room and exam room seats should be disinfected with a virucidal product. Providers and clinical staff should refrain from shaking hands with potentially infected patients, should always wear gloves when touching these patients, and should wash their hands before seeing another patient.<sup>14</sup> If hospitalized patients become infected with extremely contagious strains like EKC, they should be put in isolated rooms.

EKC patients should not return to school or work while they are actively infected. Patients should be considered infectious if they still have injected conjunctiva and increased tearing. Viral shedding may persist for 10 to 14 days after the start of signs and symptoms. Information regarding the natural history of this disease should preclude frequent unannounced return visits, further breaking the chain of office transmission.<sup>15</sup>

### Conclusion

Infectious conjunctivitis is one of the most common eye complaints, with the majority of cases initially presenting in a primary care or urgent care setting. A focused history taking and physical examination can help distinguish between viral and bacterial etiologies, or can shed light on red flag symptoms that oblige ophthalmology referral. Advancements in rapid diagnostic testing

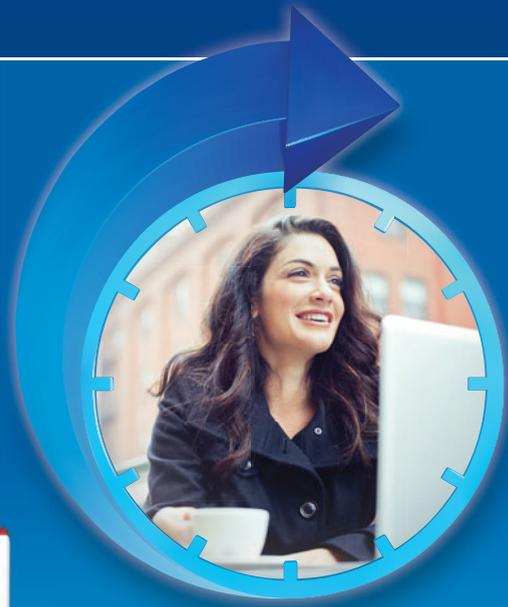
*“Patients should be considered infectious if they still have injected conjunctiva and increased tearing.”*

further assist with making early diagnosis of adenoviral conjunctivitis, saving patients from ocular surface toxicity and the financial burden of unwarranted antibiotic treatment. Cutting down on the over-diagnoses of bacterial conjunctivitis and increasing rates of accurate adenoviral conjunctivitis could potentially yield great economic savings and decrease long-term morbidity for both patients and the healthcare system. ■

### References

- Abelson M, Shapiro A, Lapsa I. Meeting the Challenge Of Conjunctivitis. *Rev Ophthalmol*. Reviewofophthalmology.com. <https://www.reviewofophthalmology.com/article/meeting-the-challenge-of-conjunctivitis>. Published June 13, 2006. Accessed 17 July 17, 2019.
- Shekhawat NS, Shtein RM, Blachley TS, Stein JD. Antibiotic prescription fills for acute conjunctivitis among enrollees in a large United States managed care network. *Ophthalmol*. 2017;124(8):1099-1107.
- Urgent Care Chart Survey. *J Urgent Care Med*. 2018.
- Azari A, Barney N. Conjunctivitis: A systematic review of diagnosis and treatment. *JAMA*. 2013; 310:1721-1729.
- Garcia-Zaliskak D, Rapuano C, Sheppard J, Davis A. Adenovirus ocular infections: prevalence, pathology, pitfalls and practical pointers. *Eye Q Contact Lens*. 2018;44:51-57.
- Keen M, Thompson M. Treatment of acute conjunctivitis in the United States and evidence of antibiotic overuse: isolated issue or a systematic problem? *Ophthalmol*. 2017;124:1096-1098.
- Sambursky R, Trattler W, Tauber S, et al. Sensitivity and specificity of the AdenoPlus test for diagnosing adenoviral conjunctivitis. *JAMA Ophthalmol*. 2013;131:17-22.
- Udeh B, Schneider J, Ohsfeldt R. Cost effectiveness of a point-of-care test for adenoviral conjunctivitis. *Am J Med Sci*. 2008;336:254-264.
- Smith AF, Waycaster C. Estimate of the direct and indirect annual cost of bacterial conjunctivitis in the United States. *BMC Ophthalmology*. 2009; 9(13):1-13.
- Bagheri N, Wajda BN. *The Wills Eye Manual*. 7th ed. Philadelphia, PA: Wolters Kluwer; 2017: 104-111.
- Koo D, Bouvier B, Wesley M, et al. Epidemic keratoconjunctivitis in a university medical center ophthalmology clinic; need for re-evaluation of the design and disinfection of instruments. *Infect Control Hosp Epidemiol*. 1989;10:547-552.
- Steinmann J, Becker B, Bischoff B, et al. Virucidal activity of 2 alcohol based formulations proposed as hand rubs by the World Health Organization. *Am J Infect Control*. 2010;38:66-68.
- Conjunctivitis. AAO Cornea/External Disease PPP Panel. San Francisco, CA, Hoskins Center for Quality Eye Care; 2013.
- Meyer-Rusenberg B, Loderstadt U, Richard G, et al. Epidemic keratoconjunctivitis: The current situation and recommendations for prevention and treatment. *Dtsch Arztebl Int*. 2011;108:475-480.
- Ghebremedhin B. Human adenovirus: Viral pathogen with increasing importance. *Eur J Microbiol Immunol*. 2014;4:26-33.

# Give patients back **12 hours** with just 1 dose



Use as directed.

Maximum-strength  
**MUCINEX®** lasts  
12 hours to relieve  
chest congestion  
associated with  
cough or cold

## Recommend other leading brands from the RB portfolio

**Delsym®** reduces the uncontrollable urge to cough—  
at the source—and lasts up to 12 hours\*

**Cepacol® INSTAMAX™** delivers the power of 2 maximum  
strength pain relievers for sore throat†

**Children's Mucinex® Cough Mini-Melts** help keep  
the mucus moving for children ages 4 to under 12



Use as directed.

Give your patients what they need, when they need it!  
For more information on how to sell these over-the-counter products  
at your urgent care center, please contact:  
Christina Cuccia: [Christina.Cuccia@rb.com](mailto:Christina.Cuccia@rb.com) / (404) 434-6005

\*Delsym® is the #1 Recommended product in the Adult Cough/Cold category with a 12-hour Cough Suppressant in the US among the Universe of Physicians (AlphaImpactRx). MAT 52 weeks through June 31, 2019.

†Cepacol® is the #1 Recommended product in the Sore Throat Lozenges category in the US among the Universe of Physicians (IQVIA ProVoice Survey). Period from June 1, 2018 to May 31, 2019.



# An Unusual Etiology of Chronic Subdural Hematoma: Case Report and Review of the Literature

**Urgent message:** Absence of an obvious cause of symptoms should not mislead the clinician away from the likely diagnosis based on those symptoms. In this case, for example, the patient was ultimately diagnosed with a symptomatic chronic subdural hematoma *not* associated with a blow to the head.

JOEL KAYE, MS<sup>4</sup> and DANA TARINA, MD

## Introduction

Chronic subdural hematoma (CSDH) is an encapsulated collection of old blood in the space between the arachnoid membrane and the dura. It was first described by Virchow in 1857 as “pachymeningitis haemorrhagica interna.” Symptoms present insidiously weeks to months after the initial insult as headache, confusion, lethargy, and weakness.

The pathophysiology involves rupture of bridging veins, which traverse the subdural space. In contrast to acute subdural hematoma (ASDH), in which direct head trauma is nearly always the cause, CSDH is caused by direct head trauma only 50%-70% of the time. Sometimes, the trauma is so trivial that it is forgotten. Other common causes of CSDH include falls without hitting the head, vascular malformations, coagulopathy, chronic alcoholism, and epilepsy.<sup>1</sup>

In addition to trauma, several less common etiologies have become recognized; these include coughing, sneezing, constipation, weight-lifting, blowing into instruments, and amusement park rides.<sup>2-8,9-17</sup>

We present a case of CSDH, which we believe was caused by repeated coughing and constipation. We aim to draw the primary provider’s attention to the signs, symptoms, and clues that would lead to increased clinical suspicion, early recognition, and prompt management of CSDH.



©Fotolia.com

## Case

A previously healthy 65-year-old male presented to the urgent care with a 1-week history of headache which was gradual in onset, frontal and midline in location, rated a 7/10 pain at its worst, intermittent, and had associated mild posterior neck stiffness. The patient tried

---

Joel Kaye, MS<sup>4</sup> is a medical student at Rutgers Robert Wood Johnson Medical School. Dana Tarina, MD is an Assistant Professor at Hackensack Meridian Health School of Medicine, Department of Medicine, Jersey Shore University Medical Center. The authors have no relevant financial relationships with commercial interests.

naproxen without relief. There was no recent or remote history of trauma and no history of similar past headaches. He denied fever, chills, nausea, photophobia, numbness, weakness, visual changes, or confusion.

Past history included type 2 diabetes, hypertension, and hyperlipidemia; all were reported to be well controlled. Medications include metformin, sitagliptin, canagliflozin, lisinopril, atorvastatin, and aspirin. The patient is married and works full-time as a dentist. He does not smoke, rarely consumes alcohol, and denies illicit drug use. Review of systems revealed chronic coughing fits and a 2-month history of constipation with significant straining at stool. The cough, which the patient attributed to lisinopril, is dry, comes in spells, and while present for years, has noticeably worsened recently. Physical exam was unremarkable except for a BP of 173/75. No diagnostic tests were obtained, and the patient was discharged home after symptomatic treatment.

*“The American College of Radiology recommends neuroimaging for any new nontraumatic headache in a patient over 50 and for any nontraumatic headache associated with cough, exertion, or sexual activity.”*

#### Discussion of Urgent Care Evaluation and Management

Patients with atraumatic headache and without focal neurologic signs or symptoms have a wide differential including migraine, cluster, and tension headaches, as well as subarachnoid hemorrhage, meningitis, cervical artery dissection, venous sinus thrombosis, abscess, tumor, giant cell arteritis, acute narrow-angle glaucoma, and carbon monoxide toxicity.

Concerning features of a serious headache include sudden onset, age over 50, bleeding disorders/anticoagulation, hypercoagulable states, immunosuppression, no history of similar headaches, and a headache associated with exertion.<sup>18</sup> Age over 50 is an independent risk factor for serious pathology among patients with nontraumatic headaches, and thus warrants particular concern as there is approximately four times the rate of pathology compared with younger patients.<sup>18,19</sup> Up to 20% of all patients with intracranial hemorrhages are

on anticoagulant medications.<sup>18</sup> In a large observational study of 10,010 patients with subdural hematoma, 47% were on an antithrombotic agent. While vitamin K antagonists and direct oral anticoagulants conferred the greatest risk among this population, antiplatelet agents still demonstrated a small risk.<sup>20</sup>

Revisiting the case, our patient has a number of these risk factors. He's over 50, has never had a similar headache previously, takes aspirin, and the headache is possibly associated with exertion. At this point, what's the next best step? The American College of Radiology recommends neuroimaging for any new nontraumatic headache in a patient over 50 and for any nontraumatic headache associated with cough, exertion, or sexual activity.<sup>19</sup> A normal neurologic exam cannot reliably rule out serious intracranial pathology.<sup>21</sup> Nonetheless, there are currently no clear and widely agreed-upon guidelines for the use of neuroimaging in the workup of headache. Physicians must use sound clinical judgment and available resources in attempting to identify the underlying cause.

#### Patient Outcome

Over the ensuing 4 days, the patient developed progressive imbalance, nausea, confusion, and urinary incontinence, prompting a visit to the emergency room. On exam, he was found to have:

- Temp: 99.6°F
- BP: 174/79
- Pulse: 62
- RR: 16
- Pulse ox: 94% on RA

The patient was lethargic and oriented only to person. On exam, there were no focal neurological deficits. Laboratory data, including coagulation studies, were normal. Chest x-ray was normal. Noncontrast CT of the head showed a thick hypodense subdural collection in the left frontal lobe with significant midline shift (**Figure 1**), consistent with a chronic subdural hematoma. He developed left-sided hemiparesis over the next hour and was taken to the OR for urgent subdural evacuation. The patient underwent successful burr hole craniotomy with a dramatic return to baseline neurological status. CTA of the head and neck prior to discharge did not reveal an arteriovenous malformation (AVM).

#### Literature Review and Discussion

In 1971, Talalla et al introduced the concept of “spontaneous” subdural hematoma (ie, occurring in the absence of direct head trauma) in a series of case reports,

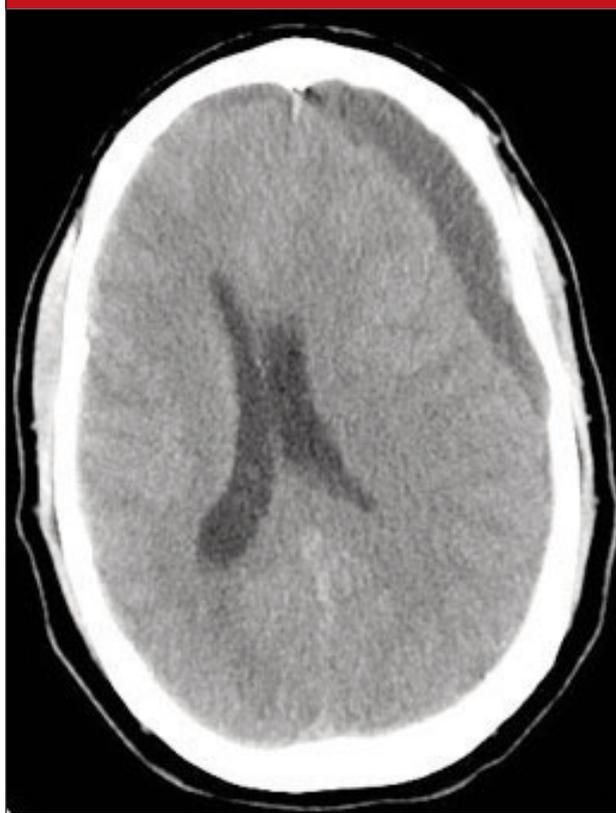
describing a 61-year-old male with a history of chronic bronchitis who presented to the ED with 2 months of recurrent headaches and lethargy.<sup>2</sup> There was no history of head trauma. Angiography revealed a subdural hematoma, and despite surgical management, the patient died 16 days later. Postmortem examination revealed no AVM. It was hypothesized that the etiology was chronic cough.<sup>2</sup> Since then, coughing, sneezing, and heavy lifting have all been implicated in the development of CSDH in case reports.<sup>3,4</sup> Blowing into instruments has also caused CSDH, with descriptions of patients who presented to the ED with multiweek histories of atraumatic headache: a 37-year-old male saxophone player and a 14-year-old female flute player with CT scan revealing CSDH and a negative workup for coagulopathy or vascular malformations; both patients stated that they had increased the use of their instruments over the preceding weeks.<sup>5,6</sup>

These cases share a common feature: use of the Valsalva maneuver. Coughing, sneezing, straining with defecation, heavy lifting, and blowing into a musical instrument all involve a forceable exhalation against a closed glottis, causing substantial increases in intrathoracic pressure (ITP) which results in increased central venous pressure, ultimately impeding cerebral venous outflow via the jugular venous system.<sup>7</sup> As a result, sudden and sustained increases in pressure transmitted through the fragile bridging veins may be responsible for their rupture. In fact, noninvasive measurements have identified significant rises in intraocular pressure in wind instrument musicians, reflecting increased cerebral intravenous pressure.<sup>5,8</sup>

Nontraumatic CSDH may also occur as the result of rapid or repetitive head movements. These types of injuries are most frequently associated with physical activity and amusement park rides. In 1964 neurosurgeon William German, while riding the “Bobsled” with his two grandchildren at Disneyland, felt a dull thud in his head. His immediate thought was “Wouldn’t it be silly if I got a subdural hematoma from this?” Ironically, after experiencing intermittent headaches over the ensuing weeks, the diagnosis of CSDH was confirmed. He later hypothesized that the high angular acceleration he was subjected to was responsible for his bleed.<sup>22</sup>

Since then, there have been eight confirmed cases of CSDH after riding rollercoasters; five occurred in otherwise healthy patients<sup>9-13</sup> and the remaining three had comorbidities which likely contributed to their bleed: a 77-year-old male on warfarin, a 33-year-old female with arachnoid cysts, and a 20-year-old male with subdural

**Figure 1. Preoperative axial CT head without contrast showing a thick hypodense subdural collection in the left frontal lobe with significant midline shift.**



hygromas.<sup>14-16</sup>

In 2016, a 55-year-old otherwise healthy male presented with a CSDH after intermittent headaches which began after riding a centrifuge motion simulator ride 8 months earlier.<sup>17</sup> Other activities suspected to be causes of CSDH include race walking,<sup>23</sup> capoeira (a combination of dance and acrobatics),<sup>27</sup> head-banging (violently shaking one’s head to the beat of music),<sup>24,25</sup> and “reverse” bungee jumping (in which the subject is held at ground level then catapulted upwards).<sup>26</sup> All share an element of rapid, jarring, or forceful repetitive movements of the head, potentially leading to tissue strain and shearing forces on the bridging veins.<sup>27</sup> Rotational acceleration, as seen in rollercoasters, can cause very rapid deformations in the brain, which can lead to diffuse axonal injury, tissue tears, and vascular disruptions.<sup>10</sup> A similar mechanism of injury is likely responsible for SH from whiplash injuries, falls without hitting the head, epilepsy, and shaken baby syndrome.<sup>1,28,29</sup>

High altitude has also been associated with CSDH. In

2002, a 37-year-old man was diagnosed with an atraumatic CSDH after attending a disco party at a high-altitude location (almost 2,800 meters above sea level); though alcohol addiction may have contributed, the authors hypothesized that high altitude was the main contributing factor.<sup>30</sup>

*“Mechanisms for [some] causes include Valsalva-mediated increases in intrathoracic pressure, hypoxia-induced changes in cerebral circulatory dynamics at high altitude, and rotational acceleration directed onto the fragile bridging veins during roller-coaster rides.”*

A similar case was described by Lu, et al in 2015, wherein a 60-year-old otherwise healthy woman was diagnosed with CSDH after ascending a 4,400 meters on a plateau four weeks earlier.<sup>31</sup> Hypoxia, which occurs at high altitude, results in markedly increased cerebral blood flow and cerebral venous pressure, with potential for bridging veins to bleed. Research into the physiologic changes at high altitude support this notion, including imaging studies which show marked distention of cerebral veins with hypoxia and dilation of retinal veins at high altitude.<sup>31</sup> Missori, et al studied eight patients with spontaneous nontraumatic CSDH; all eight had evidence of increased cerebral venous pressures using venous angiography and magnetic resonance venography.<sup>32</sup>

### Conclusion

Chronic subdural hematoma is an encapsulated collection of old blood located between the dura mater and arachnoid. Common causes of CSDH include direct head trauma, falls without hitting the head, vascular malformations, coagulopathy, chronic alcoholism, and epilepsy. Less common causes include coughing, constipation, sneezing, blowing into instruments, high altitude, and riding rollercoasters. Mechanisms for the latter causes include Valsalva-mediated increases in intrathoracic pressure, hypoxia-induced changes in cerebral circulatory dynamics at high altitude, and rotational acceleration directed onto the fragile bridging veins during roller-coaster rides.

Based on the relatively large number of CSDH cases in which the precipitating etiology is never discov-

ered,<sup>1,3</sup> it's conceivable that some “less common” etiologies actually account for a higher percentage than the literature suggests. ■

### References

- Adhiyaman V, Asghar M, Ganeshram KN, et al. Chronic subdural haematoma in the elderly. *Postgrad Med J*. 2002;78(916):71-75.
- Talalla A, McKissock W. Acute “spontaneous” subdural hemorrhage. An unusual form of cerebrovascular accident. *Neurology*. 1971;21(1):19-25.
- Cameron MM. Chronic subdural haematoma: a review of 114 cases. *J Neurol Neurosurg Psychiatry*. 1978;41(9):834-839.
- Jacome DE, Yanez GF. Subdural haematoma upon straining. *J Neurol Neurosurg Psychiatry*. 1989;52(1):134.
- Brennan PM, Fuller E, Shanmuganathan M, et al. Spontaneous subdural haematoma in a healthy young male. *BMJ Case Rep*. July 27, 2011.
- Wang HS, Kim SW, Kim SH. Spontaneous chronic subdural hematoma in an adolescent girl. *J Korean Neurosurg Soc*. 2013;53(3):201-203.
- Haykowsky MJ, Eves ND, R Warburton DE, Findlay MJ. Resistance exercise, the Valsalva maneuver, and cerebrovascular transmural pressure. *Med Sci Sports Exerc*. 2003;35(1):65-68.
- Schuman JS, Massicotte EC, Connolly S, et al. Increased intraocular pressure and visual field defects in high resistance wind instrument players. *Ophthalmology*. 2000;107(1):127-133.
- Bo Abbas Y, Bolton CF. Roller coaster headache. *N Engl J Med*. 1995;332(23):1585.
- Williams KA, Kouloumberis P, Engelhard HH. Subacute subdural hematoma in a 45 year old woman with no significant past medical history after a roller coaster ride. *Am J Emerg Med*. 2009;27(4):517.e5-6.
- Fernandes CM, Daya MR. A roller coaster headache: case report. *J Trauma*. 1994;37(6):1007-1010.
- Fukutake T, Mine S, Yamakami I, et al. Roller coaster headache and subdural hematoma. *Neurology*. 2000;54(1):264.
- Roldan-Valadez E, Facha MT, Martinez-Lopez M, Herrera-Mora P. Subdural hematoma in a teenager related to roller-coaster ride. *Eur J Paediatr Neurol*. 2006;10(4):194-196.
- Snyder R, Sridharan S, Pagnanelli D. Subdural hematoma following roller coaster ride while anticoagulated. *Am J Med*. 1997;102(5):488-489.
- Huang PP. Roller coaster headaches revisited. *Surg Neurol*. 2003;60(5):398-401.
- Yamakami I, Mine S, Yamaura A, Fukutake T. Chronic subdural haematoma after riding a roller coaster. *J Clin Neurosci*. 2005;12(1):81-83.
- Scranton R, Evans R, Baskin D. A motion simulator ride associated with headache and subdural hematoma: first case report. *Headache*. 2016;56(2):372-378.
- Tabatabai RR, Swadron SP. Headache in the emergency department: avoiding misdiagnosis of dangerous secondary causes. *Emerg Med Clin North Am*. 2016;34(4):695-716.
- Whitehead MT, Cardenas AM, Corey AS, et al. ACR Appropriateness Criteria Headache. Available at: <https://acsearch.acr.org/docs/69482/Narrative/>. American College of Radiology. Accessed June 2, 2019.
- Gaist D, Garcia Rodriguez LA, Hellfritzsch M, et al. Association of antithrombotic drug use with subdural hematoma risk. *JAMA*. 2017;317(8):836-846.
- Goldstein L, Layman T, Steiner I. Is head computerized tomography indicated for the workup of headache in patients with intact neurological examination. *Eur Neurol*. 2018;80(5-6):341-344.
- German WJ, Flanigan S, Davey LM. Remarks on subdural hematoma and aphasia. *Clin Neurosurg*. 1964;12:344-350.
- Carmont MR, Mahattanakul W, Pigott T. Acquisition of a chronic subdural haematoma during training for competitive race walking? *Br J Sports Med*. 2002;36(4):306-307.
- De Cauwer H, Van Giel R, Mortelmans L, van den Hauwe L. An uncommon cause of headache after headbanging at a party. *Eur J Emerg Med*. 2009;16(4):212-213.
- Neyaz Z, Kandpal H, Sharma R, Kale S. ‘Head banging’ during rock show causing subdural hematoma. *Neurol India*. 2006;54:319-320.
- FitzGerald JJ, Bassi S, White BD. A subdural haematoma following ‘reverse’ bungee jumping. *Br J Neurosurg*. 2002;16(3):307-308.
- Türko lu E, Serbes G, Sanli M, et al. Chronic subdural hematoma in capoeira sport. *Turk Neurosurg*. 2008;18(1):39-41.
- Lee Y, Lee KS, Hwang DH, et al. MR imaging of shaken baby syndrome manifested as chronic subdural hematoma. *Korean J Radiol*. 2001;2(3):171-174.
- Ommaya AK, Yarnel P. Subdural hematoma after whiplash injury. *Lancet*. 1969;2(7614):237-239.
- Ganau L, Prisco L, Ganau M. High altitude induced bilateral non-traumatic subdural hematoma. *Aviat Space Environ Med*. 2012;83(9):899-901.
- Lu H, Wang XB, Tang Y. Subdural hematoma associated with high altitude. *Chin Med J (Engl)*. 2015;128(3):407-408.
- Missori P, Domenicucci M, Sasson TE, et al. Alterations in the intracranial venous sinuses in spontaneous nontraumatic chronic subdural hematomas. *J Clin Neurosci*. 2013;20(3):389-393.

# Ready, Set, Accredited!



*You'll benefit from this hands-on workshop if you are contemplating or in the process of accreditation, or already accredited and working on maintaining your status.*

## **Accreditation Workshop**

**November 5-6, 2019**

*immediately following the  
NERUCA Conference in Springfield, MA*

**Visit [ucaoa.org/workshop](http://ucaoa.org/workshop)  
for more details and to register.**



## ABSTRACTS IN URGENT CARE

- Possible Links Between E-cigarettes and Pulmonary Disease, Neurological Complaints
- Migraine in Pediatric Patients

■ CORNELIUS O'LEARY JR, MD

- HPV Catchup: Now Good Until 2026
- Consider JHR for Symptoms Post Lyme Disease, Syphilis Treatment
- New Lyme Guidelines

### Report Pulmonary Illness Possibly Involving Vaping to State, Local Health Departments

**Key point:** The CDC is working with state health departments to characterize severe pulmonary disease in patients who use e-cigarettes, also known as vaping.

**Citations:** Centers for Disease Control and Prevention. CDC urges clinicians to report possible cases of unexplained vaping-associated pulmonary illness to their state/local health department. Available at: <https://emergency.cdc.gov/newsletters/coca/o81619.htm>. Accessed September 6, 2019.

Caporale A, Langham MC, Wensheng G, et al. Acute effects of electronic cigarette aerosol inhalation on vascular function detected at quantitative MRI. *Radiology*. August 20, 2019. [Epub ahead of print]

The Centers for Disease Control and Prevention is exploring possible links between sudden pulmonary disease and use of e-cigarettes, also known as “vaping,” in patients of all ages. Patients in whom vaping should be probed may present with:

- Cough
- Shortness of breath
- Fatigue
- Chest pain
- Fever
- Weight loss
- Diarrhea
- Nausea

The symptoms worsen over a period of days to weeks and

have led to admission to the hospital in several cases. No vital sign data were given, but several patients had progressive respiratory compromise leading to mechanical ventilation. No data indicated CPAP/BIPAP were used. Chest radiographs showed bilateral opacities; CT showed ground glass opacities, often with subpleural sparing. No infectious etiologies were noted in almost every case. All patients reported vaping, with several admitting use of THC-containing products. However, no single product was identified as being involved in all cases.

The CDC asks that healthcare providers evaluate cases of pulmonary illness and make sure to ask about a history of vaping. With regard to questions to ask in the history, include:

- Type of products used (commercially available bottles, cartridges, or pods)
- Any illegal drugs used?
- What is the frequency of use?
- What is the exact device used to vape/inhale/smoke?
- Are the products shared with other people?
- Are cartridges reused?
- Are the products heated to concentrate then inhaled (aka “dabbing”)?
- Refer *all* patients for tobacco cessation assistance.

The authors note the importance of a full clinical workup (infectious vs other) as indicated per the patient clinical history. Keep a high index of suspicion in cases where vaping is part of the social history. Consider transfer for a higher level of care if concerning symptoms are present, such as shortness of breath, tachypnea, seizures, muscular pain. In severe cases, transfer/admission to the hospital and consultation with pulmonology, infectious disease, and critical care may be indicated.

A report published recently in the journal *Radiology* noted that previous studies have already proven that vaping was related to systemic oxidative stress and inflammation, but no effects on endothelial function were noted prior to their study.



**Cornelius O'Leary Jr, MD** is an urgent care physician with Emergency Care Dynamics, San Diego, CA.

Get **expert next-level consulting** and planning for startup or expansion.

**Experity Consulting** offers over 100 years urgent care experience.

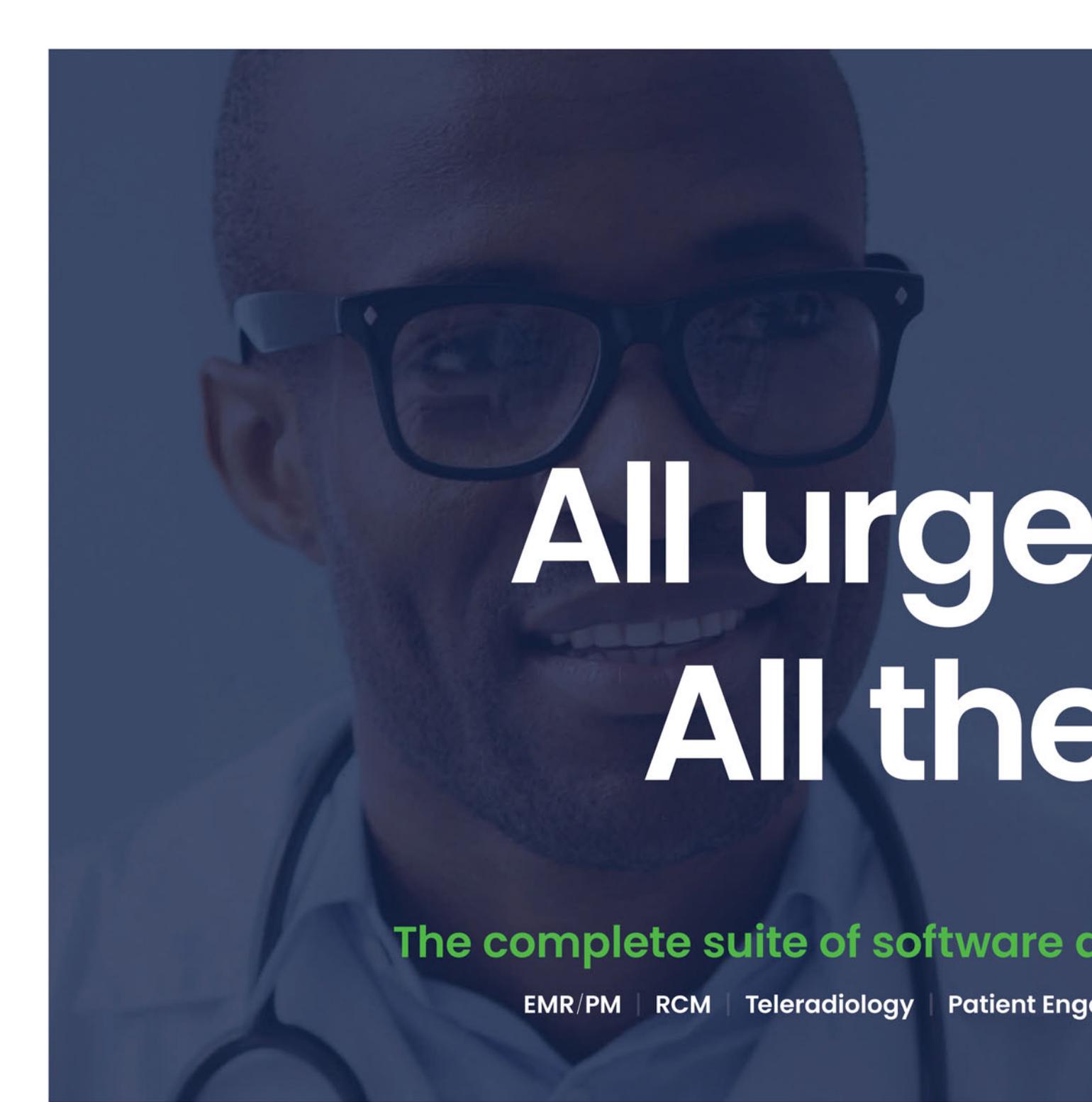
---

All urgent care. **All the time.**

**EXPERITY** | Consulting

We power the patient centered healthcare revolution.

[experityhealth.com/urgent-care-startup](https://experityhealth.com/urgent-care-startup)



# All urgent All the

The complete suite of software solutions

EMR/PM | RCM | Teleradiology | Patient Engagement

**EXPE**

We power the patient-centered

**experityhealth**

nt care.  
e time.

and services built for urgent care.

agement | Business Intelligence | Consulting

ERITY

ered healthcare revolution.

th.com/JUCM

**Deliver a better experience**  
for your patients from  
first encounter to  
satisfaction surveys.

**Experity Patient Engagement solutions** provide  
streamlined, patient-centered workflows.

---

All urgent care. **All the time.**

**EXPERITY** | Patient Engagement

We power the patient centered healthcare revolution.

[experityhealth.com/patient-engagement-software](https://experityhealth.com/patient-engagement-software)

The authors stated that after only one dose of vaping without nicotine, endothelial function in nonsmokers was affected, including changes in the resistivity index, luminal flow, and other parameters showing immediate early effects on blood vessels. The authors note further studies are needed to understand the physiologic stress induced by vaping.

News surrounding use of e-cigarettes continues to evolve, with hundreds of cases across the country. Fatalities have been reported.

Finally, pass along to patients that the FDA advises not to vape at all—especially, products with THC oil and vitamin E acetate (though no one common ingredient has been identified across case reports). ■

### FDA Alert: Seizures and Respiratory Distress from Vaping

**Key point:** *The FDA is seeking help from clinicians in evaluating whether there is a link between e-cigarette use and seizures.*

**Citation:** FDA In Brief: FDA encourages continued submission of reports related to seizures following e-cigarette use as part of agency’s ongoing scientific investigation of potential safety issue. August 7, 2019. Available at: <https://www.fda.gov/news-events/fda-brief/fda-brief-fda-encourages-continued-submission-reports-related-seizures-following-e-cigarette-use>. Accessed September 5, 2019.

Patients who use e-cigarettes (“vaping”) are presenting to urgent care centers and emergency departments with neurological symptoms and seizures. The FDA encourages submission of case reports from providers who see patients with these symptoms, and recommends that healthcare providers ask patients presenting with neurological symptoms about e-cigarette use.

To date, the agency has received 127 reports of serious neurological symptoms related to vaping going back to 2010. The data do not necessarily indicate such symptoms are increasing in prevalence or frequency compared with the population at large, though the FDA is investigating the issue.

Reported neurological symptoms after vaping include tremors or syncope not related to epileptiform activity. Most such reports have been in younger patients.

Urgent care providers are urged to file a report when they encounter such presentations. Go to [www.fda.gov](http://www.fda.gov) and enter “safety portal” in the search engine in the upper right corner of the screen. The FDA is specifically interested in the brand name and how the product (eg, for what purpose) was used. It is important to include the patient’s past medical history, medications, other risk factors. In addition, the agency suggests that you consider testing for levels of cotinine, a nicotine metabolite, in addition to typical urine toxicology screening tests.

It is important for the urgent care provider to synthesize

*“Serologic testing for Lyme disease is often negative when a patient presents with erythema migrans tested before seroconversion. Seroconversion can be tested after antibiotic treatment.”*

knowledge of the recent reports of potential neurological side effects of vaping to recent reports of respiratory distress and pulmonary complications, and updates on nicotine overdose. Vaping additives have come under scrutiny. ■

### Weighing the Available Options for Pediatric Patients with Migraine

**Key point:** *Migraine is a chronic disorder with spontaneous remissions and relapses.*

**Citation:** Oskoui M, Pringsheim T, Billingshurst L, et al. Practice guideline update summary: pharmacologic treatment for pediatric migraine prevention. *Neurology*. 2019;93(11):500-509.

This practice guideline update by the journal *Neurology* examines a plethora of clinical trials studying migraine prevention in children ages 3-18. The incidence of migraines in children 1-7 years of age is around 1% to 11% and rises up to the range of 8% to 23% by age 15. Many of the studies fail to show non-inferiority of preventative treatment to placebo in clinical trials. The study systematically examines whether preventative pharmacologic treatments with and without cognitive behavioral therapy (CBT) show efficacy in reduction in headache frequency compared with placebo.

Methods involved applying the American Academy of Neurology’s 2011 evidence-based methodology to determine risk ratios (RR) of >1.25% compared with placebo to be significant. Interventions with a RR of 1.10 or less were seen as insignificant.

Most children with a diagnosis of migraine disorder benefit from acute treatments and behavioral/lifestyle modification and do not require more robust preventative methods.

When headache frequency does not improve, or other red flags are present, the Pediatric Migraine Disability Assessment (PedMIDAS) is a validated six-question test examining disability related to migraines over a 3-month period.

Ibuprofen is the preferred treatment in the pediatric population with migraines. Treatment given earlier in the episode has higher efficacy. Pediatric patients with migraines can also take triptans. Amitriptyline (Elavil) and CBT were superior to amitriptyline and headache education in adolescents (high confidence in data 4 Class I studies). Topiramate (Topamax) is the only FDA-indicated drug for migraine prevention in kids 13 to 17 years of age. There is concern it may be no better than placebo

in achieving a 50% reduction, although there is moderate confidence it can decrease the frequency of migraines overall. The study notes that patients should be counseled on the teratogenic effects of topiramate. Also teach patients about limits of drug use—ibuprofen no more than 14 days in a month, triptans no more than 9 days per month, etc. Taking medications over these limits can lead to medication overuse headache. ■

### More Evidence Supporting Wider HPV Immunization

**Key point:** *The authors note that vaccination against HPV is given to prevent HPV infection and associated conditions, including some cancers.*

**Citation:** Meites E, Szilagyi PG, Chesson HW, et al. Human papillomavirus vaccination for adults: updated recommendations of the Advisory Committee on Immunization Practices. *MMWR Morb Mortal Wkly Rep.* 2018;68(32):698-702.

Routine vaccination against human papillomavirus (HPV) is given at 11 to 12 years of age, but may begin at age 9. Patients less than 15 years of age require 2 vaccinations (0, 6-12 mo). Patients over 15 years of age need 3 vaccinations (0, 1-2, 6-month schedule). New evidence prompted the Advisory Committee on Immunization Practices to recommend HPV vaccine catchup until age 26 in both women, men, and special populations.

Urgent care providers commonly screen and treat patients for STDs. HPV is a common sexually transmitted disease which is frequently asked about by patients in the urgent care center. Infection is usually acquired during first sexual activity. HPV infection is usually brief and asymptomatic. Most young sexually active people and most sexually active adults have been exposed and infected with HPV.

It is important to counsel patients that they can get a new infection with HPV with each sexual partner.

The authors note that if a patient is infected with an oncogenic strain of HPV, it can lead to several types of cancer including cervical, vaginal, vulvar, oropharyngeal, anal and penile cancers usually decades after infection.

Gardasil 9, 9vHPV is the only HPV vaccine currently distributed in the United States.

This updated set of recommendations reminds healthcare providers that vaccination will be most effective in young patients under age 15 and most effective before sexual activity, but you can protect your patients from acquiring new, potential oncogenic strain infections safely and effectively with this vaccine. ■

### Symptoms After Treatment for Syphilis or Lyme Disease? Consider Jarish-Herxheimer Reaction

**Key point:** *Jarish-Herxheimer Reaction should be suspected in patients treated for syphilis or Lyme disease who return to clinic*

*or call complaining of fever, shaking chills, myalgias, dizziness, facial flushing. It is not an antibiotic allergy.*

**Citations:** Roberts JR. An unusual reaction to antibiotic treatment of spirochetal infections. Roberts JR. *Emerg Med News.* 2019;41(8):16-17.

Butler T. The Jarisch-Herxheimer reaction after antibiotic treatment of spirochetal infections: A Review of Recent Cases and Our Understanding of the Pathogenesis. *Am J Trop Med Hyg.* 2017;96(1):46.

Jarish-Herxheimer Reaction (JHR) should be suspected in patients treated for syphilis or Lyme disease who return to clinic or call complaining of fever, shaking chills, myalgias, dizziness, or facial flushing. It is *not* an antibiotic allergy. Patients appear very toxic. The reaction is short-lived but mimics more serious conditions, so be careful not to overreact. The JHR reaction is indicative of successful antibiotic treatment.

Treatment of syphilis with penicillin G now the most common cause of a JHR (50%-90% of patients). Patients with Lyme treated with doxycycline may also develop JHR (15-20%).

The author of the *Emergency Medicine News* article notes that that physicians tend to see nowhere near this rate of JHR, so the epidemiology may be questionable; still, the ability and concern to suspect this reaction needs to be reinforced as infections with syphilis are on the rise, as are tick-borne diseases, according to the CDC.

The urgent care clinician may also benefit from reading the 2017 article in the *American Journal of Tropical Medicine and Hygiene*, which discusses JHR in the context of antibiotic treatment for spirochetal infections such as syphilis, Lyme disease, leptospirosis, and relapsing fever.

The exact pathogenesis of the JHR is unknown. As the immune system responds to the spirochetal infection and increases phagocytosis of the spirochetes, spirochetal lipoprotein and non-endotoxin pyrogens are released. Pro-inflammatory cytokines are also released from leukocytes during the JHR.

JHR develops 2-6 hours after antibiotic treatment and may mimic antibiotic allergy or sepsis, so observation for 12-24 hours is not unreasonable. The article mentions that patients with mild symptoms can be sent home, however. Patients may experience a transient worsening of the rash. At the other end of the spectrum, patients with severe reactions have rarely required intubation and mechanical ventilation but the incidence of this is rare and may be due to underlying pathology. ■

### Updated Lyme Disease Guidelines Shed More Light on Prevention, Testing, and Treatment

**Key point:** *Nonspecific symptoms that persist after the recommended course of treatment has concluded do not necessarily warrant additional antibiotics.*

Citation: Lantos P, Rumbaugh J, Bockenstedt L, et al. Draft Clinical Guidelines by the Infectious Diseases Society of America (IDSA), American Academy of Neurology (AAN), and American College of Rheumatology (ACR): 2019 Guidelines for the Prevention, Diagnosis and Treatment of Lyme Disease. Available at: <https://view.protectedpdf.com/ad6GFZ>. Accessed September 4, 2019.

In 2017, the last year for which the Centers for Disease Control and Prevention has published data, a total of 42,743 confirmed and probable cases of Lyme disease were reported—an increase of 17% from 2016. This rate of growth speaks to the need not just for current recommendations on treating patients with confirmed Lyme disease, but also on testing patients who *may* have Lyme disease, as well as prevention.

Given the fact that many patients may experience a tick bite while on vacation—and far away from their primary care provider—it is likely that urgent care providers will see a growing number of affected patients. Of particular note for this audience is that serologic testing for Lyme disease is often negative when a patient presents with erythema migrans tested before seroconversion. Seroconversion can be tested after antibiotic

treatment using tiered immunoassays and does not require Immunoblot.

The use of a second immunoassay is a new feature of the guidelines. For prevention, the guidelines suggest that doxycycline (200 mg for adults, 4.4 mg/kg for children up to a maximum of 200 mg) be administered within 72 hours of a tick bite, provided that the tick is of the Ixodes variety; is found in an area endemic for Lyme disease; is engorged; and has been attached for 36 hours. For patients with early localized disease, a 10-day course of doxycycline, a 14-day course of amoxicillin or cefuroxime, or a 7-day course of azithromycin is recommended.

Pregnant patients should have a risk/benefit discussion with their physician with regard to treatment.

Of particular note for urgent care providers is that additional antibiotics are not recommended for patients who follow up after the recommended course of treatment with nonspecific persistent symptoms such as pain or fatigue without evidence of reinfection or treatment failure. Routine testing is not indicated for patients with mental illness. ■



VisualDx is your trusted second opinion.

**Features include:**

- ✓ Fast access to insights from the best specialists
- ✓ Handle complex cases directly
- ✓ Engage patients with our handouts

**20% OFF**  
for JUCM readers  
[visualdx.com/jucm](http://visualdx.com/jucm)





# Competing for Patients in a Digitally Connected World

**Urgent message:** In today's tech-driven, digital-everything society, industry-leading consumer companies all leverage technology to reduce friction—ie, steps, obstacles, and unnecessary effort—in making their products and services fast, convenient, and accessible. The urgent care operation that can align with this growing trend and leverage technology to root out friction will win loyalty and patronage from today's digitally native healthcare consumer.

ALAN A. AYERS, MBA, MAcc

**F**ric<sup>ti</sup>on might be the most oft-repeated buzzword in business and tech today, and for good reason. Consumer giants like Uber and Airbnb (along with countless others) are disrupting industries and driving billions in revenue by reducing the steps and effort required to perform traditionally time-consuming tasks such as renting rooms, hailing rides, ordering meals, and making reservations. Apple—long a trailblazer in reducing friction—for example, allows shoppers in its Apple stores to grab items right from the shelves, scan them with the free Apple app (linked to the customer's Apple account with billing/credit card information digitally stored) on their iPhone, and walk right out, bypassing the crowd without needing to interact with an employee beyond the store greeter. The purchase is billed directly to their Apple account. Talk about reducing friction!

Although the Apple example is exceptional and obviously one of a global tech giant that spends billions on R&D, you can find examples of consumer companies leveraging technology to reduce friction everywhere you look—many of them in your day-to-day life. Mostly through apps, digital tools, and online technology, businesses not only endeavor to reduce the friction between their product/service and the consumer purchase, but also to encourage and influence desired behaviors. At every turn, companies are looking for cost-efficient ways to eliminate unnecessary steps between the consumer



© AdobeStock.com

deciding they want something, and the few taps and swipes necessary to make it happen.

So how can urgent care—a multibillion-dollar industry in its own right that delivers on-demand healthcare

---

**Alan A. Ayers, MBA, MAcc** is Chief Executive Officer of Velocity Urgent Care and is Practice Management Editor of *The Journal of Urgent Care Medicine*. The author has no relevant financial relationships with any commercial interests.

in a retail fashion—capitalize on the revenue and loyalty opportunities that follow from a mindset of reducing friction at every patient touchpoint? Can a visit to the urgent care center really be as “frictionless” as, say, ordering ahead and paying for a breakfast sandwich from Dunkin Donuts through the app, then arriving at the store to simply grab your hot, ready, and waiting order?

Receiving treatment for injury and illness by a medical professional is a bit more meaningful and complicated than that, of course. However, there exist ample opportunities to explore the current tech and digital landscape for ready solutions which, if implemented strategically, can reduce friction toward making your urgent care the path of least resistance to patients looking to receive low-acuity healthcare in a fast, efficient, and seamless fashion.

To that end, the following sections will explore four key areas of the urgent care customer journey:

- Brand exposure (through marketing)
- Utilization decision (deciding to go to urgent care)
- Patient financial experience
- Postvisit follow-up and support

Then, identify opportunities to not only reduce friction at these important customer touchpoints, but to implement digital/technology solutions for streamlining the entire urgent operation on the backend—all with an eye toward reducing employees’ administrative burden, allowing them to recapture the time and effort needed for throughput and patient care.

### Brand Exposure

Experience is that, on average, an urgent care patient utilizes an urgent care center only about 1.7 times a year. And that utilization occurs only when—aside from ancillary services like sports physicals and employer drug testing—there’s an unexpected injury or illness. There’s typically no “direct response” marketing opportunity (especially with traditional methods) where the customer is exposed to some marketing tactic, and then immediately decides to visit the center. Urgent care, therefore, would usually market ahead of the actual need so the center is top of mind when an injury/illness episode does occur. Traditional urgent care top-of-mind marketing tactics include:

- High-visibility locations (especially endcap space in shopping centers featuring food/drug/mass retailers) that have lots of traffic and prominent signage
- Grassroots and community marketing—schools, sports leagues, YMCA, community and chamber of

commerce events—positioning the urgent care brand as a ubiquitous presence in the community

- Mass media advertising—TV, radio, billboard ads, direct mail, newspaper ads

While these tactics are effective and do raise awareness for a later need, they can be expensive, especially for smaller, independent urgent care operations with tight marketing budgets. Additionally, a consumer needs to be exposed to a brand message several times before it’s cemented as top of mind, so the marketing must be ongoing. Today’s technology, though, allows for more of a direct response-type approach to marketing that allows the urgent care to be front and center right as the need for care arises—in real time.

### Have a Modern Website

At this juncture, the friction point—anything that slows or impedes the customer journey—for the urgent care consumer lies in the decision-making process when there’s an immediate injury or illness:

- Which center is open? What are their hours?
- How close is the center? Where’s the center located?
- Does this center take my insurance?
- How fast can I be in and out?
- Can I “get in line” ahead of time so that I’m seen by a clinician as soon as I arrive?

This is where technology can be employed to reduce the friction inherent in this decision-making process. The first step? A modern, professional website.

Consumer research shows that nearly 90% of patients go online first when they’re looking for a healthcare solution.<sup>1</sup> This means your website may be their first exposure to your brand. You don’t need to spend thousands on a fancy urgent care website, but it should have a modern design, easy navigation, up-to-date information, and above all, a mobile-friendly design. Google statistics reveal that around 5 million urgent care-related keywords are searched every month—with 74% of those searches occurring on a mobile device.<sup>2</sup> So, what information should your website be able to quickly provide?

- Center location and hours
- Clear, current contact information
- Participating insurance plans and payment types accepted
- Services provided (as opposed to those that require a prior ED or primary care visit)
- Map widget that shows the center location on a map with major cross streets, nearby stores, and major landmarks

- Useful information on common illnesses (ie, a blog with valuable information that's optimized to get picked up by search engines when people search for terms like "flu" and "strep")
- Billing and insurance FAQs

In addition, you should invest in quality hosting so your website pages load fast. Slow-loading websites—a major source of friction—will cause nearly half of online users to abandon the site within 3 seconds. And your website should be designed by an expert who knows how to structure the content, layout, and navigation to be search engine-friendly.

### Online SEO

While having a modern website is a key first step, ensuring that people find it when an online search takes place is critical. To rank near the top of search engine results for keywords like "closest urgent care" or "urgent care near me" (a trending keyword) or "urgent care that's open 24 hrs" you'll need to employ paid advertising and search engine optimization (SEO) services. The monthly SEO and ad budget can be tracked and tweaked in correlation with captured analytics data to achieve the desired number of "hits" to your site when local consumers search urgent care keywords.

### Local Directory and Review Sites

Savvy urgent care operators understand just how many local consumers use directory and review sites when searching online for a clinic. Yelp!, Google, and Glassdoor are examples of sites that feature short reviews and star ratings from one (worst) to five (best). Ensure that your urgent care is registered with these services, and diligently monitor the reviews. One bad review from an angry patient has an outsized impact on clinic perceptions and can negatively influence thousands, so always have a staff member follow up immediately with any patient who leaves a negative review.

### Social Media

Especially with Facebook, where many people already spend time online, a well-designed urgent care business page can convey important information to consumers making a quick decision. People who visit your page will see the familiar menu links to the left of the page where they can quickly click *Hours*, *Locations* (with a map widget right on the page), *Reviews*, *About* and *Posts* links from one place. The urgent care Facebook page should also be linked from the main website and optimized to show up in Facebook "urgent care near me" searches.

**Takeaway:** By employing the aforementioned digital marketing strategies, urgent care marketing can not only be employed for top-of-mind awareness for later, but a quasi-"direct response" for real-time illness and injury. With an SEO-optimized, mobile-friendly website along with a Yelp! business account featuring positive reviews working in conjunction with an optimized Facebook page, a mom with a sick kid can go from tapping into her phone, "urgent care near me," to picking your center literally within seconds.

### Utilization Decision

Even after the decision to patronize your urgent care is made, obstacles (friction) may still be present that, if inconvenient enough, can lead the consumer to consider other providers. Consumer questions at this point might be:

- Can I reserve my spot online so I don't have to wait in the lobby?
- Can I preregister online to cut down on paperwork when I arrive?
- Will I be notified via text when my spot in line is approaching so I can head to the clinic?
- Will the clinic text me if there are unexpected delays?
- How easy/difficult is it to navigate to the correct location via GPS?

Many of these concerns center on wait time and reaching the clinic when their spot is ready. Again, technology is available—as you'll see as you read on—that the urgent care can employ to reduce friction at this stage and simplify the process.

### Online Reservation System

Technology companies that service the healthcare industry have developed high-quality online reservation systems that urgent cares can easily integrate into their pre-existing platforms. Generally accessible from the urgent care website, an online reservation allows patients to shift the bulk of their wait from the urgent care lobby to their office, vehicle, or living room couch. These systems also send text communication when the patient's spot in line is approaching, allowing patients to time their arrival with minimal wait. As many patients view a wait (real or perceived) in a crowded lobby with other sick patients as a major aggravation, online reservation systems are a huge convenience and thus an effective friction eliminator. As a bonus, the ability to anticipate patient flow aids the clinical staff, as it helps maximize efficiency in staff coverage and planning.

### Preregistration/E-registration

In addition to the online reservation system, urgent cares should provide online or in-clinic lobby kiosk pre-registration for patients. The urgent care staff will double-check the registration information, of course, but from the patient perspective, this becomes an additional digital tool to speed up the visit and reduce wait time, while the urgent care gets to shift some of the administrative work away from the paid front office staff to the “free labor” of the patient.

### GPS Apps

As most people use some sort of navigation/GPS app on their phone when driving, urgent care centers would be wise to create accounts with popular apps like Waze and set the direction and location details to their center within the Waze Map Editor. Especially in big cities with heavy traffic, this makes it easier for patients to find the urgent care center, time their trips, and even discover alternate routes amid obstacles like traffic delays and construction closures. Additionally, by paying a small daily fee for Waze ads, your center can target nearby drivers with a custom ad promoting your business and services (and later get reporting as to which drivers ended up in your parking lot).

**Takeaway:** Many of the major disruptive technologies we enjoy today eliminate friction by saving us time and reducing waits. By thus implementing technologies such as online reservation and e-registration systems, and GPS navigation, you’re reducing friction by eliminating many of the obstacles and speed bumps that could prevent, deter, or delay patients from showing up at your clinic when they have an urgent care need.

### Patient Financial Experience

Going back decades, the financial experience in healthcare was a major source of friction for patients. Confusing bills, a lack of price transparency, and difficulty paying bills was long the norm, yet patients accepted it as passive receivers of their healthcare. That was, of course, before the proliferation of high-deductible health plans (HDHPs), which altered the landscape and spurred the growth of an empowered, discerning healthcare consumer. So even if you’ve reduced the friction inherent to getting them to your front door, today’s patients have options and are quick to vote with their pocketbooks when providers don’t offer what they’ve grown accustomed to: straightforward pricing, clear explanation of charges, and multiple ways to pay for services.

With that in mind, urgent care must ensure that their

entire financial experience features the following benefits toward delighting patients and avoiding reputation-damaging negative encounters.

### Flat, Clear Pricing

Today’s patient will not tolerate guesswork or uncertainty in this area; there must be clear, flat pricing for every service and procedure the urgent care offers. A prominent menu board that shows each price for comparison with other providers should be placed in the lobby. Additionally, pricing for common services and procedures should be displayed on the urgent care website and other relevant marketing touchpoints.

### Clear, Consolidating Billing

Experience and anecdote suggest this is a critical touchpoint in the financial experience, given its potential for creating friction. Even if a patient was satisfied with the clinical outcome, a poor experience here will cause them to label the entire encounter as a negative one. Therefore, the urgent care must ensure that there is a single, consolidated bill at the time of service—no separate bills for labs and imaging, etc. The bill must also be easy to understand, have each billable service and procedure itemized, and be payable in a single transaction. Financial counseling should be provided when necessary so a patient never leaves a center confused about their bill or payment options. There must also never be “surprise” bills after the fact; sending one to a patient almost always guarantees a negative review on Yelp! or social media.

### Integrated, Seamless Transaction

The actual financial transaction should not consist of several fragmented steps. Rather, it should flow as a seamless transaction consisting of the following sequence of processes:

- Confirm the patient’s information
- Verify insurance eligibility in real-time
- Identify self-pay, correct copays and deductibles to be collected in real time
- Collect payment
- Registration quality assurance (staff double-checking and verifying each other’s entry)

### Credit Card Preauthorization

When insurance coverage is undetermined, prior claims are in process, or the policy has a high deductible, credit card preauthorization can be an effective safety net for the urgent care center. This entails authorization of the visit’s total anticipated charge, and is released when

insurance is verified. It is not a hold and doesn't entail storing credit card information; rather, it enables a third-party processor to charge a preapproved amount once the insurance claim adjudicates. This method has the added benefit of saving the urgent care the time and expense of statement rendering, bill mailing, and payment posting costs.

**Takeaway:** Simply put, patients who are aggrieved due to a poor financial experience will not return to the center and will almost certainly post a negative review online. Indeed, friction in the financial transaction is no longer tolerated by today's healthcare consumer; hence, it behooves the urgent care staff to get this part right.

### Postvisit Follow-Up and Support

When today's consumers choose products and services, the postpurchase support experience factors heavily in the decision-making process. How easy is it to get a live human for technical support? How much of a hassle is it to get a quick refund or exchange? What digital channels (ie, email, live chat, text) are available for support? Will someone follow up with the patient after purchase? Inadequate support in this area produces friction even after the purchase, and can hurt word-of-mouth, online reviews, and customer loyalty. Urgent care should therefore consider the certain digital tools to cultivate the after-visit patience experience:

#### Online patient portal

Healthcare technology vendors have created full-featured online patient portals that enable patients to view their HIPPA-protected personal health information remotely, and communicate with your center via secure login credentials. Patients can use these online portals for postvisit support, including:

- View their private health records and patient history
- View lab and diagnostic test results
- View their medication list
- Request medication refills
- View and print their chart
- Two-way messaging for follow-up questions and concerns with the provider
- Receive email and text notifications for account updates and appointment reminders

#### Online bill pay

When a patient does receive a statement indicating a balance due, the ability to go to a website and enter their

credit card information not only expedites payment for the urgent care, but is a tremendous convenience to consumers who don't have to write out a paper check, address and stamp an envelope, or go to the post office.

#### Postvisit text survey

Urgent cares should have a system that texts patients a link to an online survey, which could include links to common review sites where the urgent care business is registered (ie, Google, Yelp!). Postvisit survey texting must occur immediately after the visit to give the clinic a remediation opportunity well ahead of an angry patient heading to a review site. The follow-up must also be immediate, as consumer research has shown time and again that fast, prompt service remediation can in many cases transform a disgruntled patient to a loyal supporter.

**Takeaway:** The patient journey doesn't end when they leave the clinic, given that the relationship is always in the process of being built (or damaged). Friction in the postvisit, follow-up phase is therefore just as problematic as it is before and during utilization and must be identified and addressed in order to be rooted out.

#### Back-office technology

Most of us have had at least one service experience where although there were multiple steps involved, everything just flowed in a synchronized, coordinated, and fluid fashion. There were probably few long delays and several attentive, nonharried staff members on hand to answer questions, patiently explain the process, and provide updates. Perhaps an experience that might have occurred at a five-star hotel?

In an urgent care operation, this level of coordinated, frictionless service can only be delivered if administrative burdens are shifted or reduced, freeing up staff and providers to focus more time and energy on patient care and throughput. Having quality IT solutions and back-office technology is key here to streamline the operation, and indirectly reduce friction in the service delivery. Following are several examples:

- **Full-feature EMR.** A robust EMR will have the following features (including add-ons) that streamline operations, remove human error, and reduce administrative tasks:
  - **Documentation templates** – To facilitate flow and promote quick handling of common conditions. As the 10 most common presentations make up 80% of all urgent care visits, templates reduce

repetition. Further, a template-driven process with mandatory fields requires the provider to document everything that needs to be documented so nothing that is billable will be omitted—and additional revenue that may have been missed is recaptured.

- **Coding engine** – Assures all services are correctly captured without human error, and augments automated charge entry and electronic claims submission—which assures the insurance company gets complete information to process payment without delay.
- **Schedule and coordinate referrals** – Assure continuity care for patients who require surgery, imaging, physical therapy, primary care. Having the urgent care send all the relevant health information to the next provider in the process is a welcomed convenience for patients and eliminates a potentially friction-laden part of the process.
- **Automation technology.** This comprises various technologies to automate routine tasks and allow staff to reclaim training, coaching, and patient care time. Automation tools can include:
  - Barcoding systems to scan, track, and order medical supplies
  - Automated scheduling system to assure appropriate staffing levels during hours of operation and peak patient times / lulls
  - Payroll and timecard automation to simplify time and attendance tracking, increase accuracy, and eliminate human error

**Takeaway:** Creating an in-clinic experience where the patient “flows” from one station to the next without unnecessary delays, gets in and out faster, and still receives an appropriate amount of patient care time from staff and providers means time-consuming and repetitive administrative tasks must be shifted. EMR technology and automation tools help accomplish this and more, and have a notable albeit indirect impact on reducing friction in the service delivery phase.

### Frictionless Business: Not the Future, But the Present

Several major hotel chains now allow customers to compare rates and make reservations from their devices, select their specific room and check-in directly from the app, then use the app as their room key—bypassing the front desk altogether. Amazon has “1-click purchasing” and will soon offer 1-day shipping to Prime members. Companies like Starbucks invite customers to store their

payment information in the app, paving the way for fast purchases without cash or cards. Frictionless commerce is here, and the companies that find ways to remove effort and steps between customers and their products/services will surge ahead of the competition.

Not every business, however, has the deep pockets necessary to splurge on technology platforms, app development, and complicated infrastructures. For urgent care, the amount of cash available for marketing and technology depends largely on the size of the operation; smaller organizations may be limited to, say, grassroots efforts and some basic digital tactics, whereas larger operators and hospitals can leverage more capital toward in-house digital marketing teams, better technology, and mass media campaigns.

No matter the size or sophistication of the operation, though, every urgent care operator must grasp that even when planning a visit for something as simple as a sore throat, consumers have been conditioned to expect little to no friction, and will actively seek out providers who make the process the most convenient. This new reality requires a thorough examination of the status quo, and the recognition that actively seeking cost-efficient ways to eliminate friction from the various touchpoints along the patient journey will pay off in the form of revenue and patient loyalty, and position you as the provider of choice.

### Conclusion

Technology has allowed urgent care to lessen its reliance on “top of mind” marketing to capture a patient’s one or two utilizations a year, and employ more of a direct response-style approach that leverages digital tools and mobile technology to place the urgent care right in front of the consumer as soon as they realize a need. To take full advantage of this opportunity, extra steps and obstacles must be eliminated at every touchpoint, especially during the service delivery and the financial transaction. Because in the new “frictionless” business world, the urgent care that makes an injury/illness visit as simple and pain-free as possible will emerge as the winner in their market. ■

### References

1. Fox S, Rainie L. The online health care revolution: how the web helps Americans take better care of themselves. Washington, DC: Pew Charitable Trusts; 2000.
2. Google Trends. Interest over time. March 3, 2019. Available at: <https://trends.google.com/trends/>. Accessed August 28, 2019.



## Employer Liability for Flu Infection

**Urgent message:** While urgent care centers benefit from exaggerated seasonal demand when a flu epidemic strikes, the risk is that the center’s own employees will get infected by contagious patients, incur medical costs, and lose time from work when they’re needed most.

■ ALAN A. AYERS, MBA, MAcc

### Introduction

*It’s not uncommon for an urgent care nonclinical employee (eg, an hourly front desk receptionist) to become infected with the flu and miss work due to their illness. The employee may blame her employer for the illness—demanding she not pay for medical treatment and that she also not be penalized for using “paid time off” (which is both vacation and sick pay benefits). She claims that during flu season she was exposed to many patients with flu and that the facility was also contaminated with virus. This employee, however, didn’t receive a flu shot, which was mandatory for all employees.*

*How would you proceed if presented with this issue?*

In 2017, the Centers for Disease Control and Prevention reported that 80,000 people died as result of the flu.<sup>1</sup> However, many of these deaths could have been prevented. As Johns Hopkins notes, “[r]equiring that our physicians and staff who enter clinical areas receive an annual flu vaccine protects our patients, visitors, coworkers and families. Making the flu vaccine mandatory is a step that has already been taken by many of the healthcare systems in Maryland and by many hospitals throughout the nation.”<sup>2</sup>

This article will look at the potential liability for an urgent care owner in exposing its employees to influenza, and the consequences of requiring employees to receive a mandatory flu shot.

### Employer Liability

Generally, “when an employer actually undertakes to furnish aid or assistance to an ill employee, he must exercise reason-

able care in rendering such aid and assistance.”<sup>3</sup> Thus, if an employee attempts to respond to a medical emergency but does so inadequately, the employer and the employee may be subject to a claim for having negligently rendered emergency medical services.<sup>4,5</sup>

According to the Occupational Safety and Health Administration, federal regulations stipulate that employers must provide a safe workplace for their employees. Further, employers have a duty to protect their employees from recognized hazards.<sup>6</sup> Nonetheless, there’s no specific duty that mandates specific actions an employer must take to protect employees from an infectious disease.<sup>7</sup>

For example, a Florida employee alleged that while she worked for her employer, a coworker tested positive for tuberculosis. The employee alleged that the employer was on notice about the positive tuberculosis test, but that the employer failed to take any action to protect the employee, her family and friends, the employer’s customers, and the general public from exposure to tuberculosis.<sup>8</sup> A federal district court held that the plaintiff hadn’t stated an actionable claim because the State of Florida did not recognize a cause of action for a negligent transmission of a contagious or infectious disease.<sup>8</sup> The court stated that the employer could not be held liable for negligence or tort.<sup>8</sup>

### “Occupational Disease” or “Workplace Exposure” Liability

One argument to be made on behalf of an employee is that the flu is an “occupational disease” that arises from the conditions to which a specific type of worker is exposed. However, the disease typically must be produced as a *natural incident of a particular occupation*, like asbestosis from asbestos removal.<sup>9</sup> However, causation and liability are difficult to prove because it is nearly impossible to know where an employee contracted the illness. It’s equally as likely that an urgent care employee



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

*“An urgent care can incentivize employees through several nonmandatory tools, like providing free and convenient access to vaccination, issuing small monetary and nonmonetary incentives, or actively promoting the benefits of vaccination through education and frequent regular reminders.”*

contracted the flu at a church service on Sunday as it at work on Monday morning. Because influenza is so common and prevalent in society, a plaintiff will be faced with an impractical task of showing with sufficient evidence that indeed they contracted the flu at work.<sup>10,11</sup>

Indeed, as one court stated, “ordinary diseases of life” are not compensable because they develop without exposure to a hazard particular and peculiar to the workplace.<sup>12</sup> The flu would be an ordinary disease of life because “the employer has not placed the employee at a greater risk of contracting the disease at work. Because the risk of contracting the flu is ubiquitous, the flu is not an occupational disease.”<sup>13</sup>

Although an employer may be liable for the spread of a contagious disease through the negligence of its employees acting within the scope of their authority, again, an afflicted employee would have to show she was injured as the proximate result of such negligence.<sup>14</sup> Even so, when examining the scenario of an urgent care employee who has the flu (or presents with flu systems), some states, like Florida do not recognize a cause of action for negligent transmission of a contagious or infectious disease.<sup>15</sup>

### “Mandatory” Flu Shot

Although the CDC recommends that all healthcare workers receive an annual flu vaccine, individual hospitals and health systems have some latitude to create and implement policies based on their own strategies within state law.<sup>16-18</sup>

OSHA acknowledges that healthcare workers are at high risk for contracting influenza through their exposure to high risk patients.<sup>19</sup> The CDC has classified healthcare workers as a high priority group for yearly vaccinations that are highly effective at preventing influenza. In addition to healthcare workers being in danger of contracting influenza, they can also spread the illness to their family and to patients.<sup>19</sup>

Again, employers have a duty to create a safe work environment, and encouraging flu vaccination for their healthcare

employees is one way of doing this. Employees increase their risk of contracting the flu if they decide to decline vaccination.<sup>20</sup> Influenza vaccination has been determined to be an important protection for healthcare workers because they have a greater risk of exposure. In addition, healthcare workers can pass the virus to vulnerable patients and take the infection home to their families.<sup>20</sup>

One study revealed that from 2013 to 2017, the number of hospitals in the United States requiring annual influenza vaccinations for healthcare personnel significantly increased.<sup>21</sup> The increase was driven by non-Veterans Affairs (VA) hospitals, more than two-thirds of which had mandatory influenza vaccine policies in place in 2017.<sup>22</sup> In the study, all 368 hospitals with mandatory influenza vaccination policies also provided staff with options to decline vaccination, although acceptable reasons for not receiving the vaccine varied. Overall, 96.2% of hospitals let healthcare personnel decline vaccination for medical contraindications, 78% allowed healthcare personnel to decline vaccination for religious reasons, and 12.8% of hospitals did not require a reason.

More than 80% of hospitals with mandatory vaccination policies required unvaccinated healthcare personnel to use a mask when providing care to patients during an influenza season. But nearly 75% of hospitals had no set penalties for non-compliance with hospital vaccination policies.<sup>22</sup>

One of the authors of the study, M. Todd Greene, MD, PhD, assistant research scientist in the Division of Hospital Medicine at the University of Michigan Medical School, stated, “Studies have shown that vaccination mandates, coupled with an option of declining vaccination in favor of wearing a mask, are most effective in reaching high percentages of vaccination.”<sup>22</sup>

One critic, however, noted that the study did not define the term “mandate.” This, she said, may skew the overall results of the research.<sup>23</sup>

Duluth, Minnesota-Essentia Health decided to switch in 2017 from a voluntary to a mandatory flu vaccine policy after studying the experiences of other institutions across the country.<sup>24</sup> Under the old policy, almost all Essentia employees participated as directed, with about 82% answering “yes” and getting the flu vaccine. Under the new policy, Essentia raised its flu vaccination rate to nearly 98% for the current season, including staff involved in direct patient care, vendors, and volunteers. However, the success didn’t come without a fight, as three unions filed legal challenges, and Essentia fired roughly 50 of its more than 14,000 employees for their failure to comply.<sup>25,26</sup>

In the same vein, several cases have upheld the decision not to extend unemployment benefits to employees who were terminated for refusing to receive a flu shot.<sup>27,28</sup> In a recent Minnesota case, the administrative law judge was found not to have erred in its determination that the employee’s proffered beliefs for refusing vaccination were not sincerely held religious beliefs.<sup>27</sup>

## Analysis

The front desk worker who contracted the flu allegedly from her employment at an urgent care would have an uphill battle trying to secure compensation from her employer. While employers have a duty to protect their employees from recognized hazards, arguably the employer has satisfied this obligation by offering a flu shot and by keeping the facility clean.

OSHA again counsels that the flu vaccination is highly effective, and adverse effects are rare.<sup>28</sup> It's common for employers in healthcare settings to make the flu vaccine conveniently available to employees during their normal work hours.<sup>28</sup>

However, if an urgent care operator is going to implement a mandatory flu vaccine policy, it must be cognizant of some important issues. Mandating a flu shot could violate worker rights due to religious exemptions. Failing to account for this could leave the employer at risk for a lawsuit for unlawful religious discrimination and failing to reasonably accommodate an employee's religious belief.<sup>29</sup>

An employer should review requests for religious exemptions in light of the EEOC's guidance,<sup>30</sup> as well as medical exemption requests (where an employee is allergic to the vaccine), and the Americans with Disabilities Act (ADA).<sup>31</sup>

Further, urgent care owners should create a policy for workers and clients who become ill in the workplace. The policy should address how to deal with workers and patients who may be ill with the flu and communicate it to all workers. Consult the CDC's *Seasonal Flu Information for Businesses and Employees* for information about how to develop this kind of policy.<sup>32</sup> Look at how to isolate urgent care employees (if practical) from others or give them a surgical mask to wear.<sup>33</sup> Encourage employees to stay home if they experience a respiratory illness of any sort, and to always practice proper hand hygiene, regardless of their vaccination status.<sup>31</sup>

An urgent care can incentivize employees through several nonmandatory tools, like providing free and convenient access to vaccination, issuing small monetary and nonmonetary incentives, or actively promoting the benefits of vaccination through education and frequent regular reminders.

## Takeaway

Urgent care owners should enjoy a reasonable level of comfort of not being sued for flu contagion by its employees if it takes reasonable steps to ensure a safe working environment.

If the urgent care is adopting a policy of mandatory flu shots, it should bear in mind the accepted legal exceptions in refusing to receive a shot. Finally, legal counsel should be engaged to review the policy because state laws vary on constitutional rights and privacy.<sup>34</sup> ■

## References

1. Mandatory Flu Vaccinations. Wolters Kluwer. November 27, 2018. Available at: [http://lipincottssolutions.lww.com/blog.entry.html/2018/11/27/mandatory\\_flu\\_vaccin-Hhmq.html](http://lipincottssolutions.lww.com/blog.entry.html/2018/11/27/mandatory_flu_vaccin-Hhmq.html). Accessed September 5, 2019.

2. Mandatory Flu Vaccination, Policies. Johns Hopkins Medicine. Available at: [https://www.hopkinsmedicine.org/mandatory\\_flu\\_vaccination/policy.html](https://www.hopkinsmedicine.org/mandatory_flu_vaccination/policy.html). Accessed September 5, 2019.
3. *S. Pac. Co. v Hendricks*, 85 Ariz. 373, 375, 339 P.2d 731, 733 (1959); *Wilke v Chi. G. W. R. Co.*, 190 Minn. 89, 94, 251 N.W. 11, 13 (1933).
4. *Sells v CSX Transp., Inc.*, 170 So. 3d 27, 39 (Fla. Dist. Ct. App. 2015), citing *choking L.A. Fitness Int'l, LLC v Mayer*, 980 So. 2d 550, 560 (Fla. Dist. Ct. App. 2008).
5. *Putrino v Buffalo Athletic Club*, 193 A.D.2d 1127, 598 N.Y.S.2d 648 (N.Y. App. Div. 1993), *aff'd*, 82 N.Y.2d 779, 624 N.E.2d 676, 604 N.Y.S.2d 539 (N.Y. 1993)
6. Occupational Safety and Health Administration. *Workers' Rights*. Available at: <https://www.osha.gov/workers/index.html>. Accessed September 5, 2019.
7. *Infectious Diseases and the Workplace*. Workplace Fairness. Available at: <https://www.workplacefairness.org/infectious-disease-workplace#11>. Accessed September 5, 2019
8. *Quezada v Circle K Stores, Inc.*, 18 Fla. L. Weekly Fed. D 795 (M.D. Fla. 2005).
9. New York State Workers' Compensation Board. *Occupational Disease: Workers' Compensation (On-the-Job Injury or Illness)*. Available at: <http://www.wcb.ny.gov/content/main/onthejob/OccDisease.jsp>. Accessed September 5, 2019.
10. *OhioBWC - Basics: What is an Occupational Disease Claim?* Ohio Bureau of Workers' Compensation. Available at: <https://www.bwc.ohio.gov/basics/guidedtour/generalinfo/generalinfo59.asp>. Accessed September 5, 2019.
11. World Health Organization. *Occupational and Work-Related Diseases* (2019). Available at: [https://www.who.int/occupational\\_health/activities/occupational\\_work\\_diseases/en/](https://www.who.int/occupational_health/activities/occupational_work_diseases/en/). Accessed September 5, 2019.
12. *Strome v N. R. Hamm Quarry*. 1998 Kan. App. Unpub. LEXIS 1200, at \*6-7 (Kan. App. Dec. 31, 1998).
13. Grohskopf LA, Sokolow LX, Broder, KR, et al. Prevention and control of seasonal influenza with vaccines: recommendations of the advisory committee on immunization practices—United States, 2018–19 influenza season. *MMWR*. August 24, 2018.
14. *Melody v Mo., K. @ T. R. Co.*, 58 Tex. Civ. App. 461, 461, 124 S.W. 702, 702 (Tex. App. 1910).
15. *Hogan v Tavzel*, 660 So.2d 350, 352 (Fla. 5 DCA 1995).
16. Centers for Disease Control and Prevention. Influenza vaccination information for health care workers. November 16, 2018. Available at: <https://www.cdc.gov/flu/health-careworkers.htm>. Accessed September 5, 2019.
17. The CDC tracks vaccination laws. Available at: <https://www.cdc.gov/php/publications/topic/vaccinationlaws.html>. Accessed September 7, 2019.
18. Should nurses be forced to get flu shots? *Nurse J*. Available at: <https://nursejournal.org/community/should-nurses-be-forced-to-get-flu-shots/>. Accessed September 5, 2019.
19. Occupational Safety and Health Administration. Seasonal Influenza Vaccination - Important Protection for Healthcare Workers Fact Sheet. Available at: <https://www.osha.gov/Publications/SeasonalInfluenzaVaccination.html>. Accessed September 5, 2019.
20. *Valent v Bd. of Review, Dep't of Labor*, 436 N.J. Super. 41, 46, 91 A.3d 644, 646.
21. Greene MT, Fowler KE, Ratz D, et al. Changes in influenza vaccination requirements for health care personnel in US hospitals. *JAMA Netw Open*. 2018;1(2):e180143.
22. Viguers S. mandatory flu vaccination policies increase in most US hospitals. *Healio*. June 1, 2018.
23. Babcock HM. Continuing to move the needle on health care personnel influenza vaccination rates. *JAMA Netw Open*. 2018;1(2):e180144.
24. Porter S. Too far or far enough? Mandatory flu vaccine policies in healthcare. HealthLeaders. March 9, 2018. Available at: <https://www.healthleadersmedia.com/clinical-care/too-far-or-far-enough-mandatory-flu-vaccine-policies-healthcare>. Accessed September 5, 2019.
25. The Minnesota Nurses Association and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union.
26. Gooch K. 2nd union resists Essentia health's mandatory flu shot policy. *Becker's Hospital Review*. November 9, 2017. Available at: <https://www.beckershospitalreview.com/human-capital-and-risk/2nd-union-resists-essentia-health-s-mandatory-flu-shot-policy.html>.
27. *Potter v St. Joseph's Med. Ctr*. 2018 Minn. App. Unpub. LEXIS 1063, at \*1 (Dec. 24, 2018).
28. *Rhodenbaugh v Kan. Emp't Sec. Bd. of Review*, 52 Kan. App. 2d 621, 622, 372 P.3d 1252, 1254 (2016).
29. Healthcare worker's mandates and exemptions for the flu shot. Focus for Health. Available at: <https://www.focusforhealth.org/healthcare-workers-mandates-and-exemptions-for-the-flu-shot/>. Accessed September 5, 2019.
30. United States Equal Employment Opportunity Commission. Saint Thomas Health Sued by EEOC For Religious Bias. October 2, 2018. Available at: <https://www.eeoc.gov/eeoc/newsroom/release/10-2-18b.cfm>. Accessed September 5, 2019.
31. Society for Human Resource Management. Managing through flu and other epidemics in the workplace. Available at: <https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/managingfluandepidemics.aspx>. Accessed September 5, 2019.
32. Centers for Disease Control and Prevention. Information for businesses & employers. November 19, 2018. Available at: <https://www.cdc.gov/flu/business/index.htm>. Accessed September 5, 2019.
33. Occupational Safety and Health Administration. Seasonal flu: employer guidance, reducing all workers' exposures to seasonal flu virus. Available at: <https://www.osha.gov/dts/guidance/flu/nonhealthcare.html>. Accessed September 5, 2019.
34. *State v Hershberger*, 462 N.W.2d 393, 397-98 (Minn. 1990).



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

If you would like to submit a case for consideration, please email the relevant materials and presenting information to [editor@jucm.com](mailto:editor@jucm.com).

## A 6-Year-Old Boy with Leg Pain After a Hard Impact



### Case

The patient is a 6-year-old boy who was brought to your urgent care center by his parents with pain in his right leg. They explain that while playing with friends he tried to jump from one side of a concrete retaining wall to the other—and coming up short.

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

THE RESOLUTION



Figure 1.



Figure 2.

**Differential Diagnosis**

- Acute compartment syndrome
- Ankle fracture
- Cortical fracture
- Soft tissue ankle injury
- Greenstick fracture (incomplete fracture)

**Diagnosis**

The AP view shows a horizontal white line distal to the tibia. The lateral view illustrates a subtle cortical break posteriorly. This is an incomplete fracture.

**Learnings/What to Look for**

- Pediatric tibial shaft fractures are the third most common long bone fracture in children
- Boys experience this injury more often than girls
- Pediatric tibial shaft fracture patterns:
  1. Incomplete – Greenstick fracture of the tibia and/or fibula
  2. Complete – Complete fracture of the tibia with or without ipsilateral fibula fracture or plastic deformation

3. Tibial spiral fracture (Toddler’s fracture)—Nondisplaced spiral fracture of the tibia with intact fibula in a child under 2.5 years of age

**Pearls for Urgent Care Management and Considerations for Transfer**

- These fractures rarely displace, and can typically be managed nonoperatively with a long leg cast for 2 to 3 weeks, followed by another 2–3-week period in a short cast
- Patients can be casted on site or referred to an orthopedic specialist, depending on the clinician’s experience and comfort level in treating younger patients with painful injuries

**Acknowledgment:** Images and case provided by Teleradiology Specialists, [www.teleradiologyspecialists.com](http://www.teleradiologyspecialists.com).



# Multiple Findings Including STEMI, Low Voltage, and Type 2 AV Block in a 72-Year-Old Woman

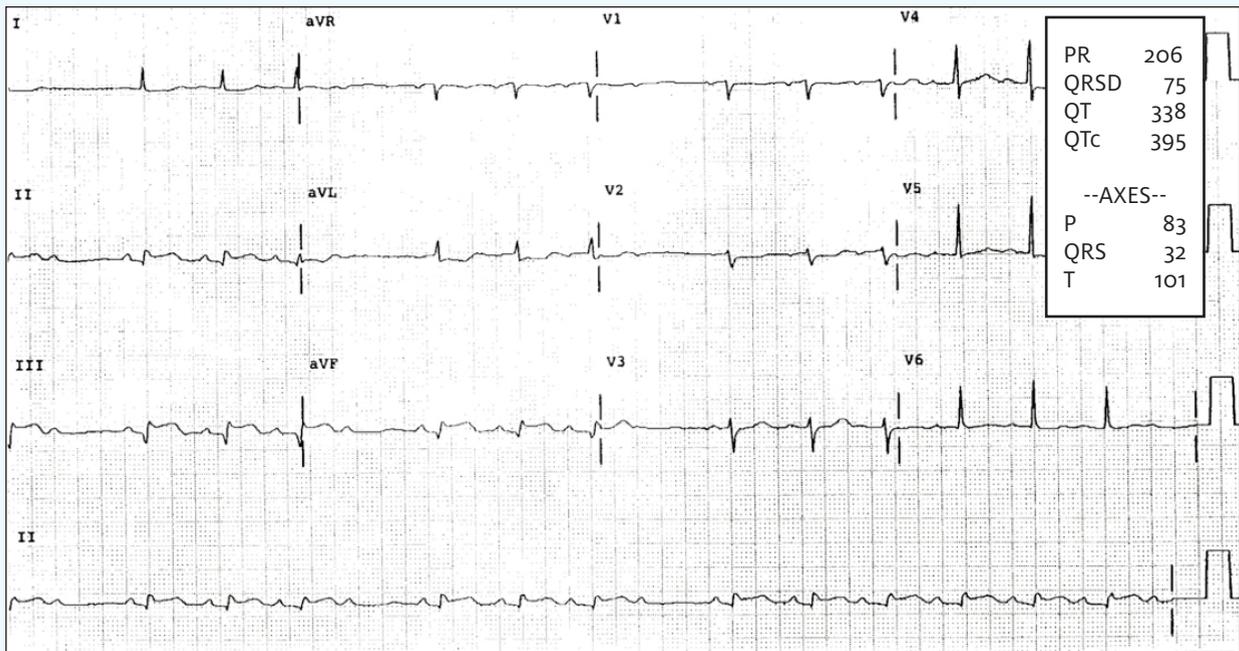


Figure 1.

## Case

The patient is a 72-year-old woman who presents with 2 hours of chest pain with associated diaphoresis. She has a remote history of breast cancer. No leg pain or swelling or history of pulmonary embolism.

On exam, you find her stated weight of 313 pounds is correct. In addition:

- **General:** Alert and oriented X 3, ambulatory
- **Lungs:** Clear to auscultation
- **Cardiovascular:** RRR without m/r/g, distant heart sounds
- **Abdomen:** Soft and NT without r/r/g
- **Ext:** Normal without swelling, pulses 2+ and equal X 4 extremities

An ECG is ordered, as seen above. Review the image and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.

THE RESOLUTION

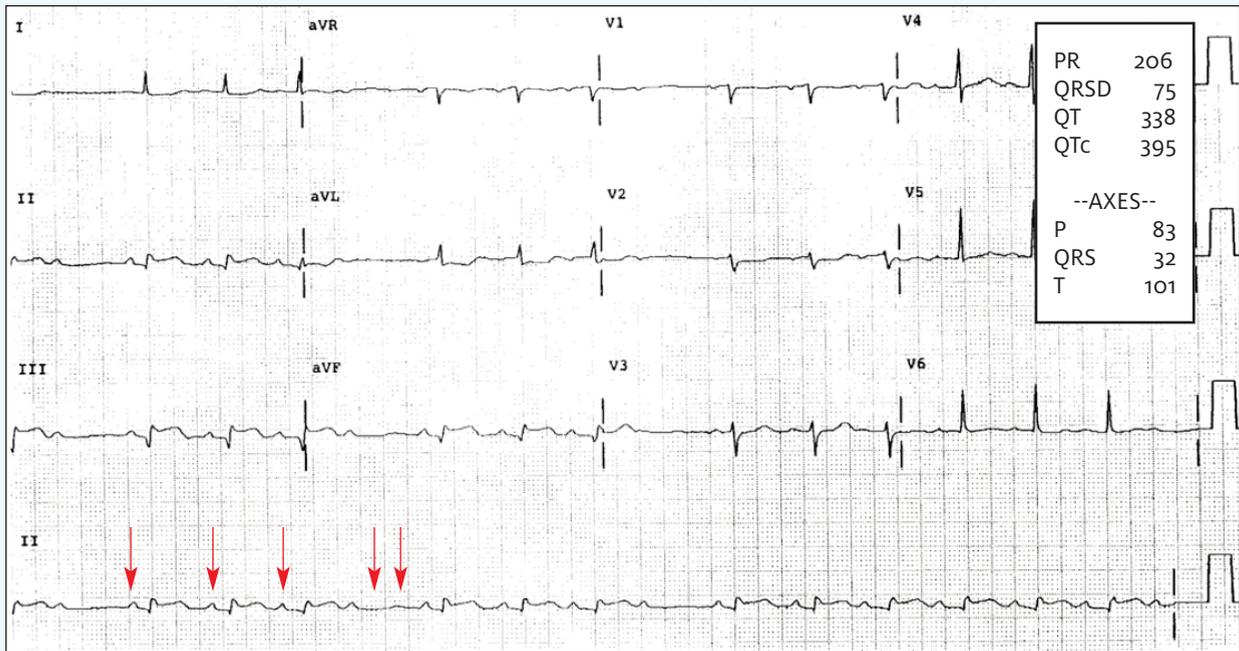


Figure 2.

Differential Diagnosis

- Atrial fibrillation, third-degree AVB
- Atrial flutter, second-degree AVB, acute anterior MI
- First-degree AVB, sinus bradycardia, acute lateral wall MI
- Second-degree AVB, Wellen’s sign, atrial flutter
- Wenckebach second-degree AV block, acute inferior STEMI, low voltage

Diagnosis

The ECG shows the correct diagnosis to be Wenckebach second-degree AV block, acute inferior MI, and low voltage.

This case illustrates that there are often multiple findings on each ECG. Whereas a quick glance might suggest atrial fibrillation/flutter, a closer inspection would show that there are P waves preceding (almost) every QRS. A look at the “rhythm strip” (which is lead II at the bottom; see arrows) will reveal that there are p waves preceding each QRS, and each of these PR intervals sequentially lengthens then there is a dropped beat (double arrow). This is type 2 AV block (Wenckebach). However, there are other concerning changes on this ECG, including ST elevation in the inferior leads, II, III, and aVF, suggestive of acute inferior STEMI – notice that there are reciprocal changes also, namely ST depression in lead aVL making the ECG even more concerning for ischemia/infarction. Finally, the ECG is suggestive of low voltage, which can simply be from obesity or COPD, but could also be from a pericardial effusion or tamponade.

Learnings/What to Look for

- Having a “cookbook” approach to ECGs, including first assessing rate and rhythm, will avoid confusing an ECGT with a block or multifocal atrial tachycardia (MAT) from atrial fibrillation
- ST changes which are anatomically consistent leads (in this case in the inferior leads II, III, and aVF) should be assessed for elevation or depression
- “Low voltage” is defined as QRS amplitudes of <15 mm in the sum of leads I, II, and III, or 30 mm in the sum of leads V1, V2, and V2
- Low voltage may be from an increased AP diameter, such as in obesity or COPD, but may also be from something more serious such as a pericardial effusion/tamponade or severe hypothyroidism

Pearls for Urgent Care Management and Considerations for Transfer

- Patients with STEMI require emergent care in a facility with the ability to perform procedural catheterization
- Notify the EMS of a STEMI, consider starting an IV, attaching the patient to a monitor, and administering an aspirin
- Though a low-voltage ECG may be from body habitus (obesity) or increased AP diameter (COPD), if due to a pericardial tamponade, this may require emergent drainage; correlate with old ECG and clinical presentation



## A 46-Year-Old Obese Man with a Painful Skin Lesion



### Case

The patient is an obese 46-year-old man who complains of a painful skin lesion located between folds of skin that were touching each other. He reports looking in the mirror at home and seeing the area was very red and erythematous. He also says sometimes it feels like a burning sensation on his skin. This was most evident after being outside in the hot, humid weather.

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

## THE RESOLUTION

**Differential Diagnosis**

- Intertrigo
- Irritant contact dermatitis
- Candidiasis
- Stasis dermatitis

**Diagnosis**

This patient has intertrigo, a chronic inflammatory condition of approximating or opposing skin surfaces (intertriginous skin) such as the axillae, groin, inframammary folds, abdominal folds, and/or labiocrural folds. It is induced or exacerbated by any conditions causing increased heat, wetness, and friction and may be worse during hot or humid weather.

**Learnings/What to Look for**

- Intertrigo is often complicated by superficial skin infection with yeast or bacteria. In candidal intertrigo, the presence of outlying satellite papules and/or pustules is diagnostic

- Clinically, there is erythema and sometimes maceration, erosions, or fissuring
- The affected areas may itch or burn
- Intertrigo is most frequently seen in obese and/or diabetic patients
- Incontinence is a predisposing factor in intertrigo of the perineum and crural folds, and there is significant overlap with diaper dermatitis

**Pearls for Urgent Care Management and Considerations for Transfer**

- Mild cases of intertrigo can be treated by keeping the area dry and exposed to air
- Topical steroid cream may be necessary in more severe cases, or when exposing the area to air is not feasible
- Antifungal powder may be helpful in keeping the affected area dry

**Acknowledgment:** Images courtesy of VisualDx ([www.VisualDx.com/JUCM](http://www.VisualDx.com/JUCM)).



# Get The Credits You Deserve

Earn Your Credits From The #1 CME  
Program Focused On Urgent Care

Core Content in Urgent Care Medicine

---

This 62 hour program, divided into 7 modules, is the only comprehensive self-study continuing education and training program in urgent care medicine. The Program curriculum covers the evaluation and management of the most common urgencies and emergencies. Our all-original content has been curated by urgent care pioneers and is presented in sections by leading urgent care experts. Join thousands of urgent care professionals who are using The Core Content in Urgent Care Medicine program to gain additional training and earn CME credits.

Learn more at [UrgentCareCME.com](https://UrgentCareCME.com)



SCHOOL OF MEDICINE  
CASE WESTERN RESERVE  
UNIVERSITY



Use coupon code **JUCM1** to receive  
a 20% discount on the program!

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

Case Western Reserve University School of Medicine designates this enduring material for a maximum of 62.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



# Be Ready for the ICD-10-CM 2020 Updates

■ DAVID E. STERN, MD

October 1, 2019 introduces 273 new diagnosis codes, 21 deactivated codes, and 35 code description revisions to the International Classification of Diseases, 10<sup>th</sup> Revision, Clinical Modification set, bringing the total ICD-10-CM code count to 72,184. The following describes those that are most relevant to the urgent care provider.

### **Chapter 8: Diseases of the Ear and Mastoid Process (H60-H95)**

There is just a small change to note here, where code H81.4, “Vertigo of central origin” was added to replace expired codes H81.41, H81.42, H81.43, and H81.49. This change removes the laterality coding options.

### **Chapter 9: Diseases of the Circulatory System (I00-I99)**

Codes in category I48 were added to indicate the different forms of persistent and chronic atrial fibrillation. Those new codes are:

- I48.11, “longstanding persistent atrial fibrillation”
- I48.19, “other persistent atrial fibrillation”
- I48.20, “chronic atrial fibrillation, unspecified”
- I48.21, “permanent atrial fibrillation”

Laterality and location were also added to codes in category I82 for phlebitis and thrombophlebitis. For example, I80.241, “phlebitis and thrombophlebitis of right peroneal vein” and I80.253, “phlebitis and thrombophlebitis of calf muscular vein, bilateral.” Codes were also added to category I82 to differentiate acute and chronic embolism and thromboses, such as I82.451, “acute embolism and thrombosis of right peroneal vein” and I82.551, “chronic embolism and thrombosis of right peroneal vein.”



**David E. Stern, MD**, is board-certified in internal medicine. He was a director on the founding board of UCA and has received the organization's Lifetime Membership Award. He is CEO of Experity (formerly DocuTAP and Practice Velocity), which offers industry-leading SaaS EMR solutions, patient engagement technology, radiology over-read services, revenue cycle management services, and a robust analytics suite.

*“A final note about the guideline updates relates to coding uncertain diagnoses: The terms 'compatible with' and 'consistent with' were added as terms indicating uncertainty of a diagnosis.”*

### **Chapter 12: Diseases of the Skin and Subcutaneous Tissue (L00-L99)**

A total of 25 new codes in category L89 were added and the guidelines updated to identify and code deep tissue injuries as opposed to having to code them as unstageable pressure ulcers, as was the case with the 2019 ICD codes. Some examples are:

- L89.116, “pressure-induced deep tissue damage of right upper back”
- L89.226, “pressure-induced deep tissue damage of left hip”
- L89.816, “pressure-induced deep tissue damage of head.”

### **Chapter 17: Congenital Malformations, Deformations, and Chromosomal Abnormalities (Q00-Q99)**

Laterality was added to certain congenital diseases of the foot and ankle, resulting in the addition of 31 codes in category Q66. For example, code Q66.21, “congenital metatarsus primus varus” was deleted and replaced with three codes, Q66.211, Q66.212, and Q66.219, representing the congenital metatarsus primus varus of the right foot, left foot, and unspecified foot, respectively. You will find the same pattern with the following diseases:

- Congenital metatarsus adductus
- Other congenital varus deformities of feet
- Congenital talipes calcaneovalgus

- Congenital pes cavus
- Congenital deformity of feet

### **Chapter 18: Symptoms, Signs, and Abnormal Clinical and Laboratory Findings, Not Elsewhere Classified (R00-R99)**

Code R11.15, “cyclical vomiting syndrome unrelated to migraine” was added, and the two codes in category R82 are:

- R82.81, “Pyuria”
- R82.89, “Other abnormal findings on cytological and histological examination of urine”

### **Chapter 19: Injury, Poisoning, and Certain Other Consequences of External Causes (S00-T88)**

Sixty codes were added to category S02 to represent laterality and position around the eye for acute open and closed fractures of the orbital wall. A few examples are:

- S02.121A, “fracture of orbital roof, right side, initial encounter”
- S02.832A, “fracture of medial orbital wall, left side, initial encounter”
- S02.842A, “fracture of lateral orbital wall, left side, initial encounter”
- S02.85XA, “fracture of orbit, unspecified, initial encounter”

Guidelines for coding poisoning by, adverse effect of, and underdosing were updated to assign newly added codes under subcategory T50.91 if two or more drugs, medicinal or biological substances, are taken. Examples of those changes are:

- T50.911A, “poisoning by multiple unspecified drugs, medicaments and biological substances, accidental (unintentional), initial encounter”
- T50.915A, “adverse effect of multiple unspecified drugs, medicaments and biological substances, initial encounter”
- T50.916D, “underdosing of multiple unspecified drugs, medicaments and biological substances, subsequent encounter”

Category T67 will see additional codes, as well, in order to identify heatstroke and sunstroke. For example:

- T67.01XA, “heatstroke and sunstroke, initial encounter”
- T67.02XD, “exertional heatstroke, subsequent encounter”
- T67.09XA, “other heatstroke and sunstroke, initial encounter”

### **Chapter 20: External Causes of Morbidity (V00-Y99)**

There were 75 new codes added to category Y35 to identify legal intervention with several weapons, such as a handgun (Y35.029-), rubber bullet (Y35.049-), and tear gas (Y35.219-), with injury to unspecified persons, initial, subsequent, and

*“When diagnoses are uncertain, do not document them with terms such as ‘probable,’ ‘suspected,’ ‘questionable,’ ‘rule out,’ ‘compatible with,’ ‘consistent with,’ or ‘working diagnosis.’ Instead, code to the highest degree of certainty for that encounter, including details such as symptoms, signs, abnormal test results, or other reason for the visit.”*

sequela encounters, just to name a few. One example is, Y35.319A, “legal intervention involving baton, unspecified person injured, initial encounter.”

### **Chapter 21: Factors Influencing Health Status and Contact with Health Services (Z00-Z99)**

There were two codes added for the encounter for the exam of the eyes and vision following a failed vision screening without and with abnormal findings with codes Z01.020 and Z01.021, respectively.

Code Z11.7 was added for testing for latent tuberculosis infection, code Z22.7 was added to diagnosis latent tuberculosis, and code Z86.15 was added for documenting the personal history of latent tuberculosis infection.

Category Z86 had six codes added to represent personal history of in-situ neoplasms of genital organs, oral cavity, unspecified digestive organs, middle ear and respiratory system, and skin.

Code Z96.82 was also added to indicate the presence of a neurostimulator.

A final note about the guideline updates relates to coding uncertain diagnoses. The terms “compatible with” and “consistent with” were added as terms indicating uncertainty of a diagnosis.

The full instruction for coding an uncertain diagnosis for outpatient services is, “Do not code diagnoses documented as ‘probable,’ ‘suspected,’ ‘questionable,’ ‘rule out,’ ‘compatible with,’ ‘consistent with,’ ‘working diagnosis,’ or other similar terms indicating uncertainty. Rather, code the condition(s) to the highest degree of certainty for that encounter/visit, such as symptoms, signs, abnormal test results, or other reason for the visit.”

All updates are available on the CMS website (<https://www.cms.gov>). ■

# CAREERS

## PHYSICIANS WANTED

### Patient First

## Physician Founded. Patient Focused.

With an outstanding staff, Patient First supports you in providing excellent care.



**We are looking for full- and part-time physicians.**

With over 70 locations throughout greater Washington, D.C., Maryland, Virginia, Pennsylvania, and New Jersey, Patient First physicians have been providing urgent and primary care for over 35 years. In addition to flexible schedules and career advancement opportunities, we offer a comprehensive compensation package that includes:

- Excellent salary
- Loan assistance
- Licensure and certification assistance and reimbursement
- Relocation package
- Outstanding malpractice insurance
- Health, dental, vision, life, and disability insurance, plus more.

To learn more, contact Recruitment Coordinator Eleanor Hertzler at 804-822-4478 or [eleanor.hertzler@patientfirst.com](mailto:eleanor.hertzler@patientfirst.com), or visit [www.patientfirst.com/PatientFirstCareers](http://www.patientfirst.com/PatientFirstCareers)

# MARKET PLACE

## PRACTICE FOR SALE

### Rudder Realty Corporation

Store for rent. IDEAL FOR URGENT CARE. Best block on busiest street in Elizabeth, NJ. High density urban shopping district. 3,125 sq. ft. 25 ft. by 125 ft. Full basement. Fully renovated and in excellent condition. Landlord will do fit-out for desirable tenant. Tom 973-467-4001

**JUCM**  
THE JOURNAL OF URGENT CARE MEDICINE  
**CAREERCENTER**

FIND THE RIGHT JOB  
[www.UrgentCareCareerCenter.com](http://www.UrgentCareCareerCenter.com)



# Conjunctivitis: When the Eyes Have It, How Many Patients Turn to Urgent Care?

“Care must be taken to differentiate bacterial infections from viral diseases and allergic conditions.”<sup>1</sup> Things don’t get much plainer than that statement, quoted from an article published in *Review Of Ophthalmology* back in 2006. And yet, care is *not* always taken to differentiate bacterial infections of the eye from viral diseases and allergic conditions. That was made abundantly clear in this month’s cover article, Evaluation of Infectious Conjunctivitis by Clinical Evaluation and Novel Diagnostics (page 11), which revealed that 58% of patients with pink eye filled a prescription for antibiotics—even though the majority of acute conjunctivitis cases are found to be due to adenoviruses and not bacterial infections.<sup>2</sup>

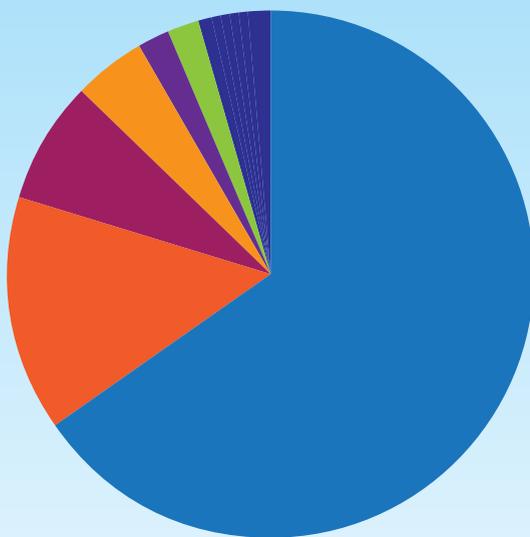
This is a very relevant point in urgent care. Perhaps surprisingly, urgent care and primary care providers evaluate up to 83% of conjunctivitis patients initially presenting to

a non-eyecare provider.<sup>2</sup> Looking at it from within the urgent care center, ophthalmologically oriented complaints are at the root of 3.41% of visits to urgent care centers.<sup>3</sup> Various disorders of the conjunctiva, inflammation of the eyelids, superficial injury to the eye and adnexa, and “other” complaints (disorders of the iris and ciliary body, cataract, glaucoma, and blindness/low vision) account for 91% of total eye-related visits. To see how the data break down—and which disorders of the eye you’re most likely to encounter—see the graph below. ■

#### References

1. Abelson M, Shapiro A, Lapsa I. Meeting the challenge of conjunctivitis. *Rev Ophthalmol*. Available at: <https://www.reviewofophthalmology.com/article/meeting-the-challenge-of-conjunctivitis>. Accessed September 5, 2019.
2. Shekhawat NS, Shtein RM, Blachley TS, Stein JD. Antibiotic prescription fills for acute conjunctivitis among enrollees in a large United States managed care network. *Ophthalmology*. 2017;124(8):1099-1107.
3. Urgent care chart survey. *J Urgent Care Med*. Urgent care chart survey. 2018.

## WHAT PROVIDERS SEE WHEN IT COMES TO THE EYE



#### Prevalence of Eye-Related Diagnoses (Percentage of Total Urgent Care Visits)

- Disorders of the conjunctiva: 2.23
- Inflammation of eyelids: 0.49
- Superficial injury of eye and adnexa: 0.26
- Other disorders: 0.15
- Foreign bodies: 0.07
- Visual disturbances: 0.06
- Contusion of the eye and adnexa; lacrimal disorders; other disorders of the eyelids; disorders of the orbit; keratitis; and "other": 0.15

Source: Urgent Care Chart Survey. *J Urgent Care Med*. Urgent care chart survey. 2018.

**Get accurate reads**  
fast from licensed  
radiologists coast  
to coast.

**Experity Teleradiology** boasts  
99.97% over read accuracy.

---

All urgent care. **All the time.**

**EXPERITY** | Teleradiology

We power the patient centered healthcare revolution.

[experityhealth.com/teleradiology](https://experityhealth.com/teleradiology)