Could PrEP Be a Boost for Your Urgent Care Business?

Keep Flu Patients Out of the Hospital—or Worse

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LETTER FROM THE EDITOR-IN-CHIEF

Longitudinal Assessment: A Dent in the ABMS Armor?

With the volume of dissent against Maintenance of Certification (MOC) now at a fever pitch, American Board of Medical Specialties (ABMS) boards are finally making changes to their recertification programs with the intent of reducing the burden on physicians.

The issue could not be more acute than in urgent care, where many UCA member physicians have been practicing for years. Working outside of their specialties of training and growing more distant from the best practice standards therein, recertification is an increasingly more difficult exercise. Additionally, the pressure for active board certification is mounting as more urgent care practices become affiliated or owned by health systems and as payers begin tightening the panels in saturated markets.

All of this has created an increasingly untenable situation. It bears mentioning that it is now easier for a physician assistant or nurse practitioner to become credentialed with a hospital or payer than it is for a physician. Essentially, credentialing requirements have deemed that a previously board-certified physician who doesn’t recertify is “less capable” than an advanced practitioner who has no recertification requirement. That’s not a knock on advanced practitioners—their boards have it right—but it’s a serious flaw in the logic of our ABMS-dominated medical staff privileging and credentialing systems.

Not only are these recertification requirements unfair and potentially even career-changing, they are expensive, time-consuming, disruptive and stressful. At a time when there are few compelling reasons to enter into a primary care specialty, shouldn’t we be looking for ways to ease the burden?

Fortunately, several efforts are afoot to either eliminate or reduce the relentless pressure of specialty recertification. Both the American Board of Family Medicine and American Board of Internal Medicine have implemented versions of a “longitudinal assessment” as an alternative pathway for recertification. These options allow for diplomates to sit for open book, online assessments. For family physicians, these assessments will be comprised of 25 questions every 3 months until 300 questions have been answered over a 3–4-year period. Feedback is immediate and references for correct answers are shared. Better yet, no additional payment is required to participate (a major complaint with the 10-year MOC process). ABIM announced a similar plan with online testing every 2 years (50 questions each) that allows for use of Up-To-Date for reference (a curious partnership with a for-profit entity). While neither of these MOC programs is perfect, each reflects an ABMS monopoly under pressure to reform. And that is a good step in the right direction.

Other challenges to traditional certification processes continue at both the national and state level. The National Board of Physicians and Surgeons (NBPAS) has been growing its influence in recent years with its cry for replacing MOC entirely with the same CME requirements used for state licensure. While they have achieved greater recognition and have a growing membership, their influence over the hospital and payer credentialing has been rather limited. So, NBPAS, along with state medical societies and other alternative certification boards, have been influencing several state legislatures to ban or limit board certification as a condition of licensure, reimbursement, employment, or admitting privileges. While there have been some consolation victories, nothing consequential has been passed into law. Most legislative observers believe, however, that the environment for action exists and, with time, just might yield enough momentum to turn the tide of these certification mandates.

Ideally, we will find a way forward that unburdens physicians from the expense and disruption of recertification exams while also allowing for greater freedom of practice. As urgent care physicians, we are in the uniquely difficult position of practicing in a different setting than our original certification was intended to test. For now, we can only look forward to a time when we can pursue our passion for urgent care medicine without unfair obstacles or punitive actions.

Lee A. Resnick, MD, FAAFP
Editor-in-Chief, JUCM, The Journal of Urgent Care Medicine
Treating Patients Infected with Influenza Virus in the Urgent Care Setting

With the 2018-2019 flu season in full bloom, the urgent care provider’s focus starts shifting from immunization to treatment. For the young and healthy, the priority is getting them back on their feet. For the compromised, very young, and very old, however, it’s a fight to stave off complications, hospitalization, and death.

Samantha Arnold, DO

A Pregnant Mother Presenting to Urgent Care with Chickenpox

Thanks to advances in immunization, chickenpox is much less common than it used to be. That means little to patients who become infected, though—especially pregnant women, like the one at the center of this case report.

Samrana Arefeen, MD and Khalid Aziz, MD

Is PrEP Appropriate for Urgent Care?

Clinically, pre-exposure prophylaxis (PrEP) was a breakthrough in the fight against HIV. The question raised here is, could it also be a breakthrough for your urgent care operation’s business?

Alan A. Ayers, MBA, MAcc

What Happens if You Break a Commercial Lease?

Many things could make a business owner want out of a lease, even before it runs its course. The consequences could be severe if you don’t know how to exit gracefully (or at least legally).

Alan A. Ayers, MBA, MAcc

International travel and antivaccination movements are just two reasons diseases we thought were a thing of the past continue to pop up from time to time. Some of them can be quite severe, of course. Urgent care providers have to be vigilant for potential public health emergencies at all times. Be prepared for the next time a patient walks in with a disease that “should have” been eradicated long ago, by reading Unexpected Viral Illness in an Urgent Care Setting: The Re-Emergence of Eradicated Infections in the January issue of JUCM.
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Flu season is a two-part affair: First urgent care providers have to prepare for the prevention phase by making sure there’s an adequate supply of vaccines in house, getting the word out that it’s time for flu shots (recognizing that the message will fall on at least a few deaf ears), and conducting flu clinics. Next comes the treatment phase, when patients who end up with the flu come in seeking whatever relieve you can offer.

Similarly, we’ve chosen to address influenza in the urgent care center in a two-part series. Last month, we covered the prevention phase. In this issue, we take a deep dive into managing patients who come down with the flu, including information on the latest antiviral approved by the FDA. All patients are seeking relief, but the truly urgent cases involve those patients who could end up with complications that send them to the hospital—or could even prove deadly. Treating Patients Infected with Influenza Virus in the Urgent Care Setting, by Samantha Arnold, DO, starts on page 11.

Dr. Arnold is a Resident in the Adena Emergency Medicine Residency program. The author has no relevant financial relationships with any commercial interests.

Pregnant women tend to be high-risk patients in many presentations, including the one described in this month’s case report. A Pregnant Mother Presenting to Urgent Care with Chickenpox, by Samrana Arefeen, MD and Khalid Aziz, MD tells the tale of a woman who noticed a rash and skin lesions shortly after returning from an overseas trip—only to learn that two people in the house she was staying in were diagnosed with chickenpox. Read how the urgent care providers acted fast to prevent life-threatening complications for the mother, and serious congenital malformations to the fetus.

Dr. Arefeen practices urgent care and family medicine in New Jersey. Dr. Aziz is the founder and medical director of Urgent Care of NJ.

Less clear is the wisdom of offering pre-exposure prophylaxis (PrEP) for HIV on site in the urgent care center. It’s a little controversial, especially from a business perspective. Is PrEP Appropriate for Urgent Care? looks at this issue from a practice management perspective. As author Alan A. Ayers, MBA, MAcc points out, PrEP offers the chance to increase revenue and provide an important public health service, but some clinicians have ethical concerns. It’s all part of the discussion that starts on page 17.

Mr. Ayers, who is chief executive officer of Velocity Urgent Care, LLC and practice management editor of JUCM, also lends his expertise as an urgent care leader to our Health Law and Compliance feature this month (page 31), answering the titular question What Happens if You Break a Commercial Lease? The answer bears discussion, as sometimes it will be nothing, while in other situations there could be a court date and significant legal fees in your future.

Also in this issue, we welcome Andy S. Barnett, MD, FAAFP, FACEP as an Abstracts in Urgent Care guest contributor. Dr. Barnett, medical director of Legacy – GoHealth Urgent Care delivered a talk on the top papers of 2018 for urgent care clinicians during the UCA conference held in Houston this fall. We thought it was so well conceived that we asked if he’d be OK with us featuring those papers in a year-end retrospective for JUCM readers. He was happy to oblige, and even offered to review the text. Check out the top picks starting on page 23.

Finally, given our focus on influenza, we wanted to be sure you’re able to be reimbursed appropriately for the services you provide to patients concerned about the flu. David Stern, MD, CPC answers essential questions about this in Revenue Cycle Management Q & A on page 41.

Thanks to Our Peer Reviewers

We hope you find the content in this issue spot-on in terms of its relevance to your urgent care practice. If so, thank our peer reviewers for helping us ensure we’re on point. This month, that would be:

- Robert Blumm, MA, PA, DFAAPA
- Calvin Fuhrmann MD, FCCP
- William Gluckman, DO, MBA, FACEP, CPE

If you would like to help advance urgent care literature by serving as a peer reviewer, please email your CV to editor@jucm.com.

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CONTINUING MEDICAL EDUCATION

Release Date: December 1, 2018
Expiration Date: November 30, 2019

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

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

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This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of 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.

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• 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
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### CONTINUING MEDICAL EDUCATION

**JUCM CME subscribers can submit responses for CME credit at www.jucm.com/cme/. Quiz questions are featured below for your convenience. This issue is approved for up to 3 AMA PRA Category 1 Credits™. Credits may be claimed for 1 year from the date of this issue.**

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**1.** Which of the following groups is at high risk for developing influenza-related complications?
   - a. Children age 5 years and above
   - b. Adults between 55 and 65 years of age
   - c. Residents of nursing homes or long-term facilities
   - d. People with a body mass index >43
   - e. Healthy teenagers

**2.** Which of the following conditions associated with influenza would require transfer to the emergency department?
   - a. Rhinorrhea
   - b. Altered level of consciousness
   - c. Cough
   - d. Myalgias
   - e. Fatigue

**3.** Which of the following medications are indicated for treatment of patients diagnosed with influenza infection?
   - a. Zanamivir (Relenza)
   - b. Oseltamivir (Tamiflu)
   - c. Baloxavir marboxil (Xofluza)
   - d. All of the above
   - e. None of the above

**Is PrEP Appropriate for Urgent Care? (p. 17)**

1. An educational and prevention strategy relating to use of PrEP in patients could include:
   - a. Insurance counseling
   - b. Information on how to obtain free PrEP drugs
   - c. Resources for obtaining clean, unused needles
   - d. All of the above
   - e. None of the above

2. “Risk compensation” is defined as:
   - a. Concern that nonadherence to strict dosing regimens could result in the creation of virulent HIV strains
   - b. None of the above

3. Which of the following would be a consideration favorable to offering PrEP services in the urgent care center?
   - a. A location that offers PrEP provides a much-needed service to the community
   - b. Additional revenue streams may be realized for the initial consultation, laboratory testing and screening, and ongoing prescription maintenance
   - c. A clinical model designed to maximize throughput, as urgent care is, may be poorly equipped to provide the time-consuming sexual health assessment, counseling, and long-term maintenance necessary in PrEP services
   - d. A and B
   - e. None of the above

---

**A Pregnant Mother Presenting to Urgent Care with Chickenpox (p. 27)**

1. Which of the following is not among the infections reflected in the acronym STORCH?
   - a. Syphilis
   - b. Toxoplasma gondii
   - c. Rubella
   - d. Haemophilus influenzae
   - e. Cytomegalovirus

2. Varicella zoster virus (VZV) is:
   - a. A DNZ virus
   - b. Part of the herpes virus family
   - c. Highly contagious
   - d. All of the above

3. Risk of congenital varicella syndrome is much higher:
   - a. If infection occurs between 20 and 24 weeks of gestation
   - b. If the mother is a smoker
   - c. If infection occurs in the first 20 weeks of gestation
   - d. If infection occurs in the final 2 weeks of gestation
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Recent I saw a sign in a restaurant declaring, “Good price, good quality, good service. Pick any two.” The unique thing about urgent care is, you get all three. The value you provide across the country is arguably the best in medicine. Yet we must relentlessly communicate that value. As I was told years ago, “If you don’t toot your own horn, someone will use it as a spittoon.”

If patients, employers, health plans, legislators, and other stakeholders don’t perceive urgent and on-demand care as a high-value service, the solutions we provide will be ignored, stifled, and spittooned.

The Urgent Care Association (UCA) recently reflected on the value we bring. The Board convened and contemplated, “Who do we serve first and foremost?” Discussion ensued, but all agreed that our primary customer is our members. Our fundamental job is to support you and your success. It is the litmus test by which we, with finite resources, must prioritize our activities.

What’s New?
With member value in mind, what was newly launched in 2018?
- Based on feedback, our current Certified Urgent Care (CUC) program expanded beyond its former offerings to also recognize after-hours pediatric, orthopedic, and international urgent care centers.
- The Annual Benchmarking Report was enhanced via a partnership with Merchant Medicine as the most sought-after resource about the industry—and it is offered at no cost to participating centers.
- UCA responded to inquiries by offering its first Accreditation Workshop and now accredits over 800 centers.
- A new association management system platform was launched, with aspirations to provide a more engaging experience, extending from our website to education.
- Clinical best practice algorithms were published in collaboration with the College of Urgent Care Medicine.
- A diabetes screening research project was launched through the Urgent Care Foundation.
- While already involved in antibiotic stewardship, we responded to the CDC’s letter on antibiotic prescribing in urgent care; stewardship toolkits were published, stakeholders convened, and a plan is in place to do our part.
- Operators ask for industry talent, so the Certified Urgent Care Management Professional program was introduced.
- We advocated on Capitol Hill and at the state level and launched the UCA Political Action Committee (UCAPAC).
- Finally, we are excited about an initiative to deliver patients to member center doors in new and unique ways. Stay tuned for more information on that in the coming months.

Fall Conference is in the Books
I’m pleased to report that we received favorable feedback on our fall conference. The first Buy, Sell, Partner full-day event was a success. The 2018 Fall Conference is likely to be our last that will take place in the fall, as we will focus on one exceptional, grand event each spring. Oceans of Opportunity, the 2019 Annual Convention & Expo, will take place April 7-10 in West Palm Beach, FL. Planning is already in progress, and it’s going to be a fantastic event for all. The fall season will now be UCA’s opportunity to support our growing chapters’ regional events while also freeing up staff time and resources to apply toward enhancing member success.

Membership Matters
We cannot continue our mission to advance the industry without your support. I want to extend my deepest gratitude to those who attend our events, exhibit at our events, support us as Corporate Support Partners, and renew or join UCA as members. You allow us to continue to advance the urgent care and on-demand healthcare industry. Our mutual success translates to healthier communities. We hope you garner value from your membership. I know we do. Onward to a great 2019!
Treating Patients Infected with Influenza Virus in the Urgent Care Setting

Urgent message: As patients start to feel the effects of the 2018–2019 influenza season, urgent care centers can expect to see visits by patients with related symptoms increase. Providers must be prepared to identify and treat patients most at risk for complications and poor outcomes—armed with old standbys and a newly approved antiviral agent.

Samantha Arnold, DO

Introduction

Last month, JUCM explored prevention, diagnosis, and testing for influenza. In this issue, we focus on management of patients who have been diagnosed with influenza, with attention to duration of infectivity, complications of influenza, symptomatic treatment, and indications and side effects of medications.

Complications of Influenza

Symptoms of influenza may range from mild to severe, and may include fever, cough, myalgias, sore throat, nasal congestion, headache, and nausea or vomiting. In the healthy adult, these symptoms are typically self-limited; however, thousands of patients in the United States die every year from “the flu.”

Most complications of influenza reflect co-infection of the flu virus and microbes, including “nuisance” illnesses such as sinus infection and ear infection. However, life-threatening complications such as pneumonia may also occur. Other serious potential complications include myocarditis, encephalitis, myositis, rhabdomyolysis, sepsis, and kidney failure. Influenza infection can also lead to decompensation in chronic medical problems such as asthma, chronic obstructive pulmonary disease, or chronic heart disease.

One of the most serious complications of influenza is acute respiratory distress syndrome (ARDS), which is characterized as an inflammatory lung injury with increased pulmonary vascular permeability and loss of aerated lung tissue. Typically, chest x-ray shows bilateral radiographic opacities in patients with ARDS.

Despite recent progress in managing ARDS, the mortality rate is nearly 50%. Influenza infection is often responsible for severe ARDS whose clinical course is more prolonged and has a high mortality.1

Samantha Arnold, DO is a Resident in the Adena Emergency Medicine Residency program.
Patients at High Risk for Developing Influenza-Related Complications
According to the Centers for Disease Control and Prevention, populations at high risk for developing influenza-related complications include:
1. Children younger than 5 years old, especially those under 2 years old
2. Adults aged 65 and older
3. Pregnant women and women up to 2 weeks postpartum
4. Residents of nursing homes or long-term care facilities
5. American Indians and Alaska Natives
6. Those with chronic medical conditions such as asthma, heart disease, diabetes, chronic renal disease, liver disease, any weakened immune system (such as AIDS or immunosuppression from chemotherapy or chronic steroid use)
7. Morbid obesity with BMI>40

Indications for Referral to the Emergency Department
Referral or transfer to the emergency department is warranted for some patients presenting to urgent care with symptoms (or a confirmed case) of influenza. These include patients with:
1. Respiratory distress, including hypoxemia with oxygen saturation <90%, increased work of breathing with use of accessory muscles and nasal flaring, tachypnea, or significant tachycardia
2. Hypotension with consideration of septic shock
3. Altered level of consciousness
4. Myocarditis; this can be difficult to diagnosis in the urgent care, but red flags include a febrile patient with chest pain and unexplained tachycardia
5. Encephalitis, whose manifestations can include confusion, hallucinations, seizures, weakness, and loss of sensation; this is more common in patients over 60 years old but can present at any age
6. Myositis, with the most common presenting symptom being muscle weakness. This may only be found with muscle strength testing. Myalgias may or may not be present
7. Rhabdomyolysis, whose symptoms include dark red urine, decreased urine, weakness, and muscle aches
8. Acute renal failure, which may include decreased urinary output, fluid retention leading to swelling of the lower extremities, shortness of breath, nausea, and confusion
9. Diagnostic uncertainty

Mechanisms in Influenza: Why Do Healthy People Die?
Patients who are immunosuppressed, elderly, very young, or pregnant are more likely to develop complications of influenza, but healthy young men and women also may die of influenza. This is likely due to cytokine storms, an immune response so large that the body’s own cells, particularly those in the respiratory tract, are damaged, leading to severe complications of influenza including pneumonia and ARDS.

Cytokine storms are a result of an overactive immune system. When the immune system is fighting a microbe, cytokines activate T-cells and macrophages which then stimulate more cytokine production. Normally, this system is kept in check with a feedback loop. However, when this reaction becomes uncontrolled, too many immune cells are activated in a single place, leading to damage. The exact reason is not entirely understood, but this is thought to occur when a new and highly pathogenic microbe is encountered. For example, in patients with influenza, cytokine storms occurring in the lungs may lead to accumulation of immune cells, causing blockage of the airway and leading to ARDS.11

It is thought that the older population may have at one time been exposed to or infected with a similar virus in the past, making their body much more adept at fighting off the infection due to an immune-related memory.2 Although the older population is considered high-risk for developing complications from influenza, younger patients are more likely to develop a cytokine storm response leading to ARDS.

Treatments—Indications, Efficacy, and Precautions
Very similar to overuse of antibiotics, increasing use of antiviral medications has led to an increase of resistance. When this occurs, our most vulnerable patients are at risk for increased morbidity and mortality. Therefore, use of antivirals in influenza should be carefully considered. Any individual with severe disease or who is at higher risk of complications should be considered for treatment with antiviral therapy. Unfortunately, many of the studies completed on current antiviral therapies do not show a clear decrease in mortality. Even though recent studies question the effectiveness of antiviral therapies, the CDC still does recommend antiviral therapy in specific patient populations, including those who are considered high risk or who have other comorbid conditions.

When indicated, antiviral therapy should be initiated when the initial diagnosis is made, as it is most likely to provide benefit when initiated in the first 48 hours of
illness. In high-risk patients, therapy may be started after 48 hours. Patients who have had a negative rapid influenza test, for whom clinical suspicion of influenza remains high, should be treated, as well, as the sensitivity of these tests may be low.3 While working directly with patients with high clinical suspicion of having influenza there are broad recommendations from OSHA for direct staff safety. These include getting vaccinated, following the steps for hand hygiene and cough etiquette, staying home if you are ill, following infection control practices, and using the appropriate personal protective equipment as decided by your employer.

Three oral medications are approved by the Food and Drug Administration for patients diagnosed with influenza. These include the oral agents oseltamivir (available as a generic or under the trade name Tamiflu) and baloxavir marboxil (Xofluza) and inhaled zanamivir (Relenza). According to the CDC, recommended treatment should be initiated in the patients described in Table 1.

**Oseltamivir (Tamiflu)**

Researchers within the Cochrane Collaboration completed an assessment of 20 studies on efficacy of oseltamivir that included almost 10,000 children and adults. They did not find any evidence that oseltamivir would prevent serious cases and complications in the event of a flu epidemic. They did find that oseltamivir shortens the duration of flu symptoms by about 17 hours. Without oseltamivir, symptoms last 7 days on average in otherwise healthy children and adults. However, duration of symptoms was shortened to 6.3 days in adults who took oseltamivir, and by about 1 day in children who took oseltamivir.4

This collaboration also showed that the most common side effects of oseltamivir were nausea and vomiting, occurring in 4% of the patients.

With all of this information, it is important to engage in shared decision making (SDM) with the patient about use of oseltamivir. CDC recommendations, patient presentation, and patient preference should all come into play when considering whether to prescribe antiviral medications for influenza. The risk of GI side effects and increased risk of resistance should be balanced with the possibility that the duration of symptoms may be shortened. Additionally, over-the-counter medications such as antipyretics should be recommended for symptom relief.

Note that generic oseltamivir became available in 2016. Dosing reduction is needed in patients with decreased creatinine clearance. Recommended dose from the CDC are shown in Table 2.

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### Table 1. Persons at Higher Risk for Influenza Complications Recommended for Antiviral Treatment

- Children younger than 2 years of age
- Adults 65 years and older
- Persons with:
  - chronic pulmonary (including asthma)
  - cardiovascular (except hypertension alone)
  - renal
  - hepatic
  - hematological (including sickle cell disease)
  - metabolic disorders (including diabetes mellitus)
  - neurologic conditions
  - neurodevelopmental conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle, such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability, moderate-to-severe developmental delay, muscular dystrophy, or spinal cord injury)
- Persons with immunosuppression, including that caused by medications or HIV infection
- Woman who are pregnant or postpartum (2 weeks after delivery)
- Persons younger than 19 years of age who are receiving long-term aspirin therapy
- American Indians/Alaska NativesPersons who are extremely obese (ie, body mass ≥40)
- Residents of nursing homes and other chronic care facilities

Adapted from Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians.

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### Baloxavir marboxil (Xofluza)

In May 2018, the National Institute of Allergy and Infectious Disease (NIAID) launched a Phase 2 clinical trial of a universal influenza vaccine called M-001. The vaccine, which was developed and produced by BiondVax Pharmaceuticals based in Ness Ziona, Israel, contains antigenic peptide sequences shared among many different influenza strains.9

That same month, health authorities in Japan approved a new influenza medication called Xofluza (baloxavir marboxil). Baloxavir aims to stop the virus within 1 day. According to the manufacturers, the drug works by blocking the influenza virus’s ability to use the host cell for replication. Its mechanism of action differs from oseltamivir’s. The World Health Organization has stated that it could be the breakthrough needed to help reduce the morbidity and mortality associated with the influenza virus.

Just days before this article went to press, Genentech received approval from the FDA to sell Xofluza in the United States. The approval states Xofluza is to be used only in patients 12 years of age and older, and taken as
a single oral dose within 48 hours of symptoms onset.\textsuperscript{5}

According to \textit{The New York Times}, Genentech expects to price the product at $150 per dose, though it plans to offer coupons that would effectively lower the cost to $30 for insured patients and roughly $90 for patients who do not have insurance.\textsuperscript{6}

The safety and efficacy of Xofluza were demonstrated in a pair of randomized, controlled trials of 1,832 patients who were assigned to Xofluza, placebo, or another antiviral flu treatment within 48 hours of first symptoms of flu. In both trials, symptoms for patients in the Xofluza group were alleviated in less time than those in the placebo group. It worked more quickly than the other antiviral in one of the two studies, while there was no difference between the two products in the second trial. The most common side effects seen in patients taking Xofluza were diarrhea and bronchitis.

Data from the drug maker show that Xofluza works days faster than oseltamivir in stopping the influenza virus, but that symptoms are completed in about the same timeframe for both medications.

Dosage information is shown in Table 2.

### Other Symptomatic Management—What Works?

Each year, Americans spend over $2 billion on over-the-counter medications designed to treat the common cold. So, as practitioners, what are we able to confidently tell our patients to use?

Resting and drinking fluids remain the standard treatments. Critical reviews of clinical trials have been completed on over-the-counter cold remedies and have found some evidence to support the use of antihistamines, decongestants, and anticholinergic drugs in adults. There has not been any strong evidence to sup-

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**Table 2. Recommended Dosage and Duration of Influenza Antiviral Medications for Treatment or Chemoprophylaxis**

<table>
<thead>
<tr>
<th>Antiviral agent</th>
<th>Use</th>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral oseltamivir</td>
<td>Treatment (5 days)</td>
<td>If younger than 1 year: 3 mg/kg/dose twice daily; if 1 year or older, dose by weight: ≤15 kg, 30 mg twice daily; &gt;15 to 30 kg, 45 mg once daily; &gt;30 to 40 kg, 60 mg once daily; &gt;40 kg, 75 mg once daily</td>
<td>75 mg twice daily</td>
</tr>
<tr>
<td></td>
<td>Chemoprophylaxis (7 days)</td>
<td>If younger than 3 months, not recommended unless situation is judged critical, due to limited data in this age group. If 3 months or older but younger than 1 year, 3 mg/kg/dose once daily; if 1 year or older, dose varies by weight: ≤15 kg, 30 mg once daily; &gt;15 to 23 kg, 45 mg once daily; &gt;23 to 40 kg, 60 mg once daily; &gt;40 kg, 75 mg once daily</td>
<td>75 mg once daily</td>
</tr>
<tr>
<td>Inhaled zanamivir</td>
<td>Treatment</td>
<td>Approved in children ≥7 years of age only: 10 mg (two 5 mg inhalations) twice daily</td>
<td>10 mg (two 5 mg inhalations) twice daily</td>
</tr>
<tr>
<td></td>
<td>Chemoprophylaxis (7 days)</td>
<td>Approved in children ≥5 years of age only: 10 mg (two 5 mg inhalations) once daily</td>
<td>10 mg (two 5 mg inhalations) once daily</td>
</tr>
<tr>
<td>Oral baloxavir</td>
<td>Treatment (1 day)</td>
<td>Approved in children ≥12 years of age only, varies by weight: 40 kg to &lt;80 kg, single dose of 40 mg; ≥80 kg, single dose of 80 mg</td>
<td>Varies by weight: 40 kg to &lt;80 kg, single dose of 40 mg; ≥80 kg, single dose of 80 mg</td>
</tr>
</tbody>
</table>

Adapted from Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians; and Xofluza [Package Insert]. South San Francisco, CA: Genentech USA, Inc.; 2018.
port the use of these remedies in children. In general, recommendations should be patient-specific to address their complaints and minimize side effects.

Many holistic approaches are becoming popular in treatment of influenza and other common viral infections.

Zinc is thought to prevent the formation of viral proteins and therefore, theoretically, can inhibit replication of rhinoviruses. Zinc may also have immunomodulating properties by inducing production of interferon. But, evidence from clinical trials for zinc have been inconsistent. One study by Hemila does show a 33% to 54% reduction in cold-like symptoms such as nasal discharge and congestion, scratchy throat, and myalgias with a daily dosing of zinc at 80-92 mg/day. They did not show a decrease in duration of sneezing, headache, or fever. Even though this small study (199 participants) shows decrease in some symptoms, one must also consider the side effects of zinc, including indigestion, diarrhea, headache, nausea, and vomiting. Also, when used long-term, high doses of zinc can cause copper deficiency, leading to neurological issues. Considering there is no definitive proof of decrease in symptoms and that multiple adverse effects of over-the-counter zinc are known to occur, it should not be recommended at this time.

Another holistic treatment that is gaining popularity is echinacea. This is an herb that reportedly exerts its action through nonspecific immunomodulatory properties. Three species are used in medicine, including Echinacea purpurea, E pallida, and E angustifolia. Despite its widespread use, there are limited data from well-designed clinical trials that support its use. A study from 2011 completed by Barrett, randomized 719 patients to blinded or open-label echinacea, or to blinded placebo or no pills at all. It did not show a clinical or statistical effect in treatment for symptoms of the common cold. Until more controlled studies are completed, we cannot state its effectiveness.

Do Flu Patients Need to Miss School and Work, and for How Long?
Patients are contagious for the time span of 1 day before development of symptoms through the following 1 week, though children may remain contagious even longer. According to the CDC, patients should stay home for at least 24 hours after resolution of fever; symptoms vary widely in severity and duration, however, so avoiding contact with others needs to be individualized.

The Future of Influenza Prevention
Looking back at the effectiveness of the seasonal influenza vaccine, it is easy to understand why there has been a push into further research and planning for a universal influenza vaccine. During the 2017-2018 influenza season, vaccine effectiveness was only 36%. In 2004, it was as low as 10%. The highest effectiveness rate we’ve had in the past 15 years was in 2010, when effectiveness was 60%.

Consequently, the NIAID has focused on research programs to develop a universal flu vaccine. This would, potentially, eliminate the need to update the vaccine annually. According to the NIAID, a universal flu vaccine should do the following:

1. Be at least 75% effective
2. Protect against group I and II influenza A viruses
3. Have durable protection that lasts at least 1 year
4. Be suitable for all age groups

Take-Home Points
- Neuraminidase inhibitors may shorten the duration of flu symptoms, and are recommended for populations at high risk. Common side effects include nausea and vomiting.
- As of October 2018, three antiviral agents—Relenza, Tamiflu, and Xofluza—have received approval by the FDA for patients who have been diagnosed with influenza infection.
- Symptomatic medications such as acetaminophen and ibuprofen may be helpful, but zinc and echinacea cannot be recommended at this time.

References
Recommend MUCINEX®

#1 doctor recommended cough & cold brand*

Maximum strength MUCINEX® 12-hour products help thin and loosen mucus in patients with upper respiratory infections.

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® Chest Congestion helps keep the mucus moving for children ages 4 to under 12§

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:
Ellen Rendle: ellen.rendle@rb.com/(859) 462-2245

*MUCINEX® is the #1 Recommended Brand in the Adult Cough/Cold category in the US among the Universe of Physicians (IQVIA ProVoice Survey), MAT 52 weeks through December 2017.
†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 May 2017.
‡Cepacol® is the #1 Recommended product in the Sore Throat Lozenges category in the US among the Universe of Physicians (AlphaImpactRx). Period from June 1, 2016 to May 31, 2017.
§Children’s Mucinex is the #1 Pediatrician Recommended non-antihistamine, multi-symptom brand in the Children’s Cough/Cold category among the Universe of Pediatrics (IQVIA ProVoice Survey). MAT 52 weeks through February 2018.
Although healthcare statisticians haven’t tallied the precise numbers, the data clearly point to patient populations most at risk for contracting a sexually transmitted disease or infection (STD/I) as being those least likely to have a primary care doctor. This has led many of these patients to the doors of urgent care centers for treatment, and over the years has established urgent care as a convenient and capable provider of diagnosis, testing, treatment, risk assessment, and counseling for a broad range of common STD/Is. Look no further than the fact that urgent care as a whole has seen a threefold increase between 2010 and 2014 in requests for services related to STD/Is, with the numbers undoubtedly growing since then.¹

This increase in utilization for STD/Is combined with the landmark 2012 FDA approval of HIV-prevention drug Truvada, manufactured by Gilead, has paved the way for urgent care centers to expand their sexual health service offerings beyond typical STD/I treatment, and into a growing, high-demand subspecialty: pre-exposure prophylaxis (PrEP).

Indeed, the larger healthcare community sees urgent care as an increasingly viable option for providing PrEP services to at-risk patient groups, so long as it doesn’t become a proxy or replacement for comprehensive primary care HIV prevention. And as PrEP is widely endorsed by organizations such as the World Health Organization (WHO), Centers for Disease Control and Prevention, and the HIV.org National HIV/AIDS Strategy, awareness, understanding, and the willingness to prescribe it has increased among urgent care providers.

However, there exists a segment of the urgent care community that has expressed strong ethical reservations against widespread PrEP dispensing in urgent care—mostly surrounding issues of the medication encouraging “risk compensation” among patients, and the health consequences of nonadherence to strict dosing regimens.

With those factors in mind, here we provide a basic overview of PrEP, and answer essential questions the urgent care operator must consider when thinking about providing PrEP services.

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.
What is PrEP?
HIV pre-exposure prophylaxis, or PrEP, is a medication taken in pill form (brand name Truvada) once a day, by mouth, with or without food. Approved by the FDA in July of 2012, PrEP consists of two antiretroviral medicines: tenofovir and emtricitabine. A PrEP regimen is recommended for people who do not currently have HIV but who engage in behaviors that heighten their risk for exposure to the virus. So in effect, PrEP is a preventative treatment to be administered before infection occurs.

PrEP stops HIV from reproducing and establishing an infection in the body by blocking a key enzyme necessary for virus replication. The medicine requires 7 to 20 days to take full effect in the patient’s system. PrEP loses its effectiveness if doses are skipped, or there is inconsistent adherence to the prescribed dosing regimen. The pill can be safely discontinued at any time if the patient experiences an adverse reaction to the drug, experiences serious side effects, or if the patient’s activities and behaviors result in a decrease in their HIV infection risk levels. When the dosing regimen is strictly adhered to, PrEP is 99% effective in preventing HIV infection.2

Pre-exposure prophylaxis (PrEP) differs from postexposure prophylaxis (PEP) in that while PrEP is intended to prevent an HIV infection from ever developing, PEP is an antiretroviral therapy taken by a non-PrEP user after a single high-risk HIV exposure event (such as a needle-stick injury) where a new infection is suspected to be in the process of seroconversion. Although it is recommended that PEP be initiated within 72 hours of the high-risk exposure event, experts have observed that the therapy can in some cases remain effective beyond the 72-hour initial exposure window.3

Who is PrEP Prescribed for?
PrEP is for individuals at the greatest risk of becoming infected with HIV through their sexual practices or drug use. It has been estimated that out of the 1.2 million people in the U.S. considered at the greatest risk for contracting HIV, only 79,000 are currently on a PrEP regimen as of 2016.5 Further, recent CDC surveillance data show that the age group that produced the highest number of new HIV cases was young adults between the ages of 20 and 34.5,6

According to guidelines set forth by the CDC, the following groups of people are considered candidates for PrEP:

- HIV-negative individuals who currently have sex with an HIV-positive partner.
- Bisexual or gay men who are not in a monogamous relationship with a tested, HIV-negative partner, or who have either had condomless anal sex in the last 6 months or contracted an STD/I within the last 6 months.
- Heterosexual individuals (regardless of gender) who are not in a monogamous relationship with a verified HIV-negative partner, or who do not consistently use condoms with partners having unknown HIV status, or who are otherwise at high risk of HIV infection—for example, individuals who have bisexual male partners or inject drugs intravenously.

PrEP largely applies to personal risks involving sexuality, PEP may be part of an occupational health program benefitting police, fire, EMS, nurses, lab technicians, and others at risk for occasional accidental exposure to HIV contaminated blood.

Though some see this as a way to increase revenue and provide much-needed healthcare services, critics contend that the urgent care model is ill-equipped for safe and effective PrEP dispensing.”
Intravenous drug users who have injected drugs, had sex with people who have injected drugs, have shared needles used to inject drugs, or been in a drug treatment program within the last 6 months.
- Sex workers.
- People who are trying to become pregnant with a known HIV-positive partner.
- People who have had a recent STD/I in the anus or vagina.

**Side Effects of PrEP**

Although most people tolerate PrEP very well, there are always a few individuals who will experience adverse side effects when their body interacts with the drug. Symptoms can vary from person to person, and can include the following:

- **Nausea** – Primarily occurs at the beginning of treatment when the body is adjusting to the drug. Patients can experience feelings of queasiness, stomach discomfort, or the urge to vomit. These symptoms will usually pass after a few weeks and can be lessened when the Truvada tablet is taken with food.
- **Headaches** – Headaches can result from the body adjusting to the drug but should subside after a few weeks. If headaches persist or worsen after a few weeks of initiated PrEP treatment, the patient is directed to consult their physician or healthcare provider.
- **Diarrhea** – Diarrhea and loose stools are also a common side effect of PrEP, especially in the beginning stages of the drug regimen. As with headaches and nausea, the symptoms should lessen or subside after a few weeks, and if they persist, the patient should seek counsel from their healthcare provider.

While the above side effects are considered relatively...
minor, there are additional, more serious side effects that can arise from PrEP use, and negatively impact a patient’s health over an extended PrEP dosing regimen. These can affect:

- Liver health – In rare occurrences, PrEP can negatively impact liver health. If a patient notices the whites of their eyes or their skin take on a yellowish tint, it could indicate that PrEP is causing a problem with their liver function; hence, they should contact their healthcare provider immediately. Dark-colored urine and a loss of appetite could also be symptoms of impaired liver function and should be brought to the attention of the healthcare provider.

- Kidney health – Kidney health can also be adversely impacted by PrEP, which is why lab tests ensuring renal health are a primary prerequisite for beginning any PrEP drug regimen. In rare cases, there may be impaired kidney function during the course of PrEP treatment; therefore, a patient experiencing kidney issues should be closely monitored by the healthcare provider.

- Loss of bone density – Although rare, PrEP can lead to a loss of bone mineral density, increasing the risk of bone fractures. And while this loss of bone density can be reversed by cessation of PrEP, patients with a history of osteoporosis or other bone diseases should consult their doctor before beginning a new regimen.

**PrEP Treatment in the Urgent Care Setting**

Before a patient can begin a new PrEP regimen, their eligibility must be assessed. First, they will be interviewed by a healthcare professional to determine whether they are a candidate for PrEP. This will include a series a question about their prior health history with STD/Is or other relevant medical conditions, infections, or diseases. Additionally, the patient will be asked questions about their sexual activities, preferences, and behaviors.

Next, the patients will be required to partake in a battery of lab tests and other screenings to rule out any conditions that would be contraindicated for PrEP. These conditions can include an active STD/I, active HIV infection, renal impairment, or hepatitis B or C. If the patient is determined to be a candidate, the provider will start him/her on a Truvada regimen for a minimum of 30 days, up to 90 days. After 90 days, the patient would be required to return to the provider or another healthcare provider for additional testing should they want their Truvada prescription renewed. Additionally, a broad-ranging educational and prevention strategy will commence in conjunction, and can include the following measures:

- Education on the proper and consistent use of condoms
- A regular testing schedule for STD/Is
- Resources for obtaining clean, unused needles
- Health and wellness counseling

**Table 1** provides some basic guidelines for administration of PrEP in the urgent care setting.

**Ethical Reservations and Concerns Regarding PrEP**

Though many in the healthcare community hailed the advent of Truvada as a watershed moment in the fight against HIV/AIDS, many others raised serious ethical concerns about the drug. The primary concerns voiced by skeptics and dissenters generally fall within two basic categories:

- Risk compensation – Concern that the drug would create a false sense of security among high-risk individuals, leading to an increase in risky behavior (along with a concomitant increase in STD/I infection rates)
- Nonadherence – Concern that nonadherence to strict dosing regimens could result in the creation of virulent HIV strains that are resistant to Truvada

**Risk Compensation**

Many healthcare professionals remain concerned that the widespread availability of a preventative treatment...
like PrEP can give people the idea that contracting HIV isn’t the harbinger of doom it once was and encourage increased risk-taking that would result in higher numbers of STD/Is. This concern is supported by a recent study commissioned by clinicians in Montreal, Canada of STD/I infection rates among gay and bisexual males who were taking PrEP.9

The study found that gay and bisexual men who regularly attend an LGBTQ health clinic in Montreal and were taking Truvada were 72% more likely to contract an STD/I than they were before beginning PrEP. The study took place over a 12-month period, and found that rates of anal chlamydia doubled among the men in the study, with cases of gonorrhea and syphilis rising as well, albeit to a lesser degree.

So what are main risks that health researchers found that PrEP users are more likely to take? There are several:

- Decreases in the likelihood that people would serosort, or use a partner’s HIV-status as a determining factor in deciding to engage in sexual behavior
- Increases in the likelihood of engaging in condom-less anal sex
- Increases in the number of sexual partners
- Increases in needle-sharing

In short, PrEP critics fear that a lowering of sexual inhibitions and attitudes toward risky behaviors brought on by the perceived protection of PrEP will lead to dramatic increases of STD/I infections nationwide. Experts point to increased gonorrhea resistance as a forewarning, which the CDC now reports only the antibiotic ceftriaxone (Rocephin) remains widely effective against. This has public health organizations and infectious disease experts working overtime to increase STD/I screenings, actively promote sexual health services, disseminate literature, and offer resources and support to head off a potentially larger STD/I problem down the road.

Nonadherence

The other serious concern within the healthcare community regarding the widespread dispensing of PrEP is the consequences of nonadherence. That is, whenever a drug used as a treatment is also disseminated for prevention—especially under circumstances where adherence to strict dosing regimens cannot be monitored—resistance is becomes a strong possibility. Inevitably, this leads to HIV strains that are resistant to Truvada and drugs that function in a similar fashion.

So, what are the factors that can adversely influence nonadherence to PrEP? Healthcare professionals focus on two primary background causes:

- Issues with adhering to a daily regimen of potentially harsh drugs – Individuals and groups who

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**Table 2. PrEP Considerations for the Urgent Care Provider**

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Offering PrEP positions may help the urgent care center expand its market to include previously underserved patient groups, including the LGBTQ community.</td>
<td>• Urgent care is focused on servicing episodic conditions and treating patients quickly and efficiently. Thus, a clinical model designed to maximize throughput may be poorly equipped to provide the time-consuming sexual health assessment, counseling, and long-term maintenance necessary in PrEP services.</td>
</tr>
<tr>
<td>• Additional revenue stream (includes cash pay patients) may be realized for the initial consultation, laboratory testing and screening, and ongoing prescription maintenance.</td>
<td>• As urgent care is a draw for patients seeking convenience above all else, the mindset lends itself to a disinterest in the ongoing testing and counseling necessary for a safe and effective PrEP regimen, putting the patient at a high risk of failure.</td>
</tr>
<tr>
<td>• A location that offers PrEP provides a much-needed service to the community in the form of another option for HIV high-risk individuals to seek preventive care.</td>
<td>• Many patients seeking PrEP have complicated social, family, and medical histories—including illegal substance abuse, gender hormone use, behavioral health issues, and other infections—that necessitates a mental health provider willing and able to spend the time needed to perform a full psychological profile on the patient.</td>
</tr>
<tr>
<td></td>
<td>• Patient satisfaction is tied directly to wait times; therefore, expanding into a diversity of time-consuming services increases the complexity of the urgent care operation and can adversely affect the core injury/illness business.</td>
</tr>
<tr>
<td></td>
<td>• Although insurers are highly motivated to minimize the costly long-term expense of HIV care, many contracts will not reimburse what they consider a primary care service (PrEP) performed at an urgent care center.</td>
</tr>
</tbody>
</table>
High-risk groups having a high risk of contracting HIV universally laud the ability of Truvada to save lives. But the reality is, for individuals who experience adverse health reactions to PrEP—including hair loss, nausea, vomiting, kidney and liver issues, and being bedridden for long periods—there will always be a strong temptation to skip doses.

High-risk groups having the greatest risk factors for nonadherence—Researchers consistently find that the groups most at risk to contract HIV are also the ones least likely to stick to the strict dosing roles. More often than not, these are individuals who face economic barriers and social circumstances that would act as obstacles to easily and regularly taking PrEP. These factors could include:

- Various social stigmas (ie, promiscuity, shame, “Truvada whore” label)
- Substance abuse issues leading to forgetfulness and lax adherence to daily medications
- Lack of reliable transportation to clinics, hospitals, and other healthcare facilities (ie, prescription renewals, testing, follow-up)
- Limited access to free PrEP for those without quality health insurance
- Sharing PrEP with their sexual partners
- Partner violence

The FDA, taking note of the various issues, tasked Gilead to develop a Risk Evaluation and Mitigation Strategy (REMS) to address these concerns. And although the REMS is making headway in educating Truvada users about the dangers of drug resistance, it does not specifically address all the factors that have been shown to influence nonadherence. Hence, the healthcare community at large continues to work on developing improved risk mitigation strategies, as the drug is still a relatively new HIV prevention method.

For the urgent care operator, Table 2 addresses the pros and cons of administering PrEP in the urgent care setting.

**“While many see PrEP as a way to increase revenues and provide much-needed healthcare services, critics contend the urgent care model is ill-equipped for safe and effective PrEP dispensing.”**

**Conclusion**

Urgent care, already a well-established clinical option for STD/I treatment, has seen a number of centers begin offering HIV PrEP services. While many in the urgent care community see this expansion of treatment as an excellent way to increase revenues while providing much-needed healthcare services to the underserved LGBTQ community and others considered high-risk for contracting HIV, critics contend that the urgent care model is ill-equipped for the time-consuming counseling, screening, testing, and assessment necessary for safe and effective PrEP dispensing. Regardless, the number of urgent care operations that are successfully implementing PrEP services while continuing to thrive in their core injury/illness business is growing. And as these successful urgent care operations grow in their understanding of PrEP and develop partnerships with PCPs, health clinics, and HIV prevention centers; develop standardized protocols; and learn how to counsel and educate patients, they’ll continue to lay a solid groundwork for other centers to follow.

**References**

This has been an eventful year in the urgent care marketplace. Then again, you could say that at the end of most years in our dynamic, ever-growing industry. That begs the question, what did set 2018 apart from other years? Mergers and acquisitions, evolving technologies, and workplace trends certainly impact what you do every day. But at the end of that day, it’s all about the patients. With that in mind, here we summarize some of the top papers with the most significance for urgent care providers over the past 12 months.

**Ice, Ice, Baby to Minimize Pain Injections in Laceration Wounds**

*Key point: Injection into laceration wounds can be so painful as to complicate repair. Simple methods to minimize pain would improve the patient experience while also improving the chances for a smooth procedure, presumably with lower risk for complications.*


The authors conducted a prospective, randomized controlled trial to evaluate the effect of applying an ice cube to the injection site prior to injection in patients visiting the emergency room for simple lacerations—cryotherapy in its most organic form. Subjects were 50 patients who presented to a single emergency room between April and July 2016. They were randomly assigned to either the cryotherapy group or the control group (standard care; no cryotherapy or other pretreatment of the injection site). In cryotherapy group subjects, providers applied an ice cube (size: 1.5×1.5×1.5 cm) placed inside a sterile glove on the wound at the anticipated subcutaneous lidocaine injection site for 2 minutes prior to injection. The primary outcome was a subjective numeric rating of the perceived pain from the subcutaneous local anesthetic injections. Secondary outcomes were perceived pain on a numeric scale for cryotherapy itself (i.e., pain from contact of the ice cube/glove with the skin) and the rate of complications after primary laceration repair. The numeric rating scale for subcutaneous anesthetic injections was median, IQR, 95% CI 2.0 (1 to 3.5), 1.81 to 3.47, respectively, in the cryotherapy group and 5.0 (3 to 7), 3.91 to 6.05 in the control group (Mann-Whitney U=14750, p<0.001). No wound complications occurred in either group. The numeric rating scale for cryotherapy itself was median, IQR, 95% CI: 2.0 (1 to 3.5), 1.90 to 3.70. The authors concluded that “pre-emptive topical injection site cryotherapy lasting 2 min before subcutaneous local anesthetic injections can significantly reduce perceived pain from subcutaneous local anesthetic injections in patients presenting for simple laceration repair.”

**A Look at Antibiotic Prescribing Trends in Various Settings**

*Key point: The need for provider and patient education on ensuring antibiotics are prescribed only when necessary continues to grow.*


Starting from the perspective of a well-established fact—that antibiotic use contributes to antibiotic resistance, with unnecessary prescriptions raising that risk unnecessarily—the authors...
examined data from multiple settings to see where improvements could be made. In doing so, they also saw distinctions between “traditional” settings such as primary care offices and hospitals (which are the source of 60% of antibiotic prescriptions) and emerging settings, including urgent care and retail clinics (the remaining 40% of prescriptions, roughly). Higher-acuity settings tended to produce more antibiotic prescriptions for some diagnoses, for example, urgent care centers and emergency rooms accounted for more unsupported prescriptions than did medical offices and retail clinics for patients with respiratory diagnoses. Broadening the scope, the authors noted that 39% of urgent care visits, 96% of retail visits, 14% of ED visits, and 7% of medical office visits culminated with an antibiotic prescription (including both warranted and unwarranted). Despite public health campaigns and multiple medical society statements aimed at curbing unnecessary antibiotic prescriptions—thereby lowering risk for potentially deadly resistance—there continues to be an alarmingly high rate of scripts written for antibiotics that are not warranted. That must be matched by efforts to educate patients who “demand” an antibiotic for a viral infection, and to help providers be prepared to conduct that education while maintaining good patient relationships.

Is It Safe to Send Corneal Abrasion Patients Home with 24 Hours of Topical Tetracaine?

Key point: Referrals to ophthalmologists were decreased, but relative risk of ED rechecks and fluorescein staining increased when patients who had incurred simple corneal abrasion were sent home with a 24-hour supply of topical tetracaine.


Researchers conducted a retrospective cohort study to assess the efficacy and safety of sending patients with simple corneal abrasions (SCAs) home from the emergency room with a 24-hour supply of topical tetracaine hydrochloride 1% eye drops for pain. Outcomes—serious complications or uncommon adverse event attributed to tetracaine; ED rechecks; and the need for fluorescein staining—were compared between patients who did and did not receive tetracaine. Out of 1,576 initial ED presentations, 532 were SCAs, with 1,044 deemed nonsimple corneal abrasions (NSCAs). Tetracaine was dispensed for 303 SCA presentations (57%) and (inappropriately) for 141 NSCA presentations (14%). No serious complications or uncommon adverse events were attributed to tetracaine in any patients. Relative risks (RR) of ED recheck and fluorescein staining were higher among patients who received tetracaine (RR 1.67, 95% CI 1.25 to 2.23; and RR 1.65, 95% CI 1.07 to 2.53 for recheck and staining, respectively). However, the RRs for only SCAs receiving tetracaine were 1.16 (95% CI 0.69 to 1.93) and 0.77 (95% CI 0.37 to 1.62), respectively. Referrals to ophthalmology were significantly decreased for all patients (SCAs and NSCAs) who were dispensed tetracaine (relative risk 0.33; 95% CI 0.19 to 0.59). The authors reported no evidence that up to 24-hour topical tetracaine for the treatment of pain caused by SCA was unsafe; however, CIs were wide and some increased risks were observed for NSCAs.

Comparing New and Standard Methods to Stem Epistaxis in Patients Taking Antiplatelets

Key point: Tranexamic acid has emerged as the preferred treatment for epistaxis. Researchers tested whether topical application, as opposed to injection, offers advantages compared with other methods in patients who are taking antiplatelets.


The authors evaluated the efficacy of topical application of the injectable form of tranexamic acid (TXA) vs anterior nasal packing (ANP) for the treatment of epistaxis in patients taking aspirin, clopidogrel, or both in two emergency rooms. Of the 124 patients studied, 62 were assigned to receive either topical TXA (500 mg in 5 mL) or ANP. The primary outcome was the proportion of patients in each group whose bleeding had stopped at 10 minutes. Secondary outcomes were the rebleeding rate at 24 hours and 1 week, ED length of stay (LOS), and patient satisfaction. Bleeding was stopped within the 10-minute window in 73% of patients in the TXA group, compared with 29% in the ANP group. Rebleeding was reported in 5% and 10% of patients during the first 24 hours in the TXA and the ANP groups, respectively. At 1 week, 5% of patients in the TXA group and 21% of patients in the ANP group reported recurrent bleeding. Patient satisfaction was higher in the TXA group than in the ANP group (median [interquartile range (IQR)], 9 [8-9.25] vs median [IQR] = 4 [3-5]; p < 0.001). Discharges from the ED in <2 hours were higher in the TXA group than in the ANP group (97% vs 13%). There were no adverse events in either group.

“Efforts to curb unnecessary antibiotic prescriptions must be matched by efforts to educate patients, and to help providers conduct that education while maintaining good patient relationships.”
## Abstracts in Urgent Care

**Adding Prednisone to a Course of Levocetirizine for Relief in Acute Urticaria: Not Superior**

**Key point:** The quest for maximum relief in the shortest span of time possible is what drives patients with symptoms of acute urticaria to the urgent care center to begin with. Validated treatments that provide that relief while minimizing risk for side effects or additional cost serve the needs of all stakeholders, starting with the patient.


This double-blind randomized trial evaluated the efficacy of a 4-day course of prednisone added to an antihistamine (levocetirizine) for the management of acute urticaria in an emergency room setting. Patients were at least 18-years-old with acute urticaria of no more than 24 hours’ duration; patients with anaphylaxis or who had received antihistamines or glucocorticoids in the previous 5 days were excluded. In addition to taking 5 mg of levocetirizine orally for 5 days, patients were assigned to receive prednisone (40 mg orally for 4 days) or placebo. The primary endpoint of the study was itching relief 2 days after the ED visit, rated on a numeric scale of 0 to 10. Secondary endpoints were rash resolution, relapses, and adverse events. There were 50 patients included in each group. Seven patients in the prednisone group and eight in the placebo group discontinued treatment. At 2-day follow-up, 62% of patients in the prednisone group reported an “itch score” of 0, vs 76% of those in the placebo group. Thirty percent of patients in the prednisone group and 24% in the placebo group reported relapses. Mild adverse events were reported by 12% of patients in the prednisone group and 14% in the placebo group. The authors concluded that the addition of prednisone did not improve symptomatic and clinical response to levocetirizine. As such, the study does not support the addition of corticosteroid to H<sub>1</sub> antihistamine as first-line treatment of acute urticaria without angioedema.

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**A Pregnant Mother Presenting to Urgent Care with Chickenpox**

**Urgent message:** Failure to correctly diagnose and provide immediate treatment for varicella zoster virus (VZV) infection in pregnant patients can lead to life-threatening complications for the mother, and serious congenital malformations to the fetus.

SAMRANA AREFEEN, MD and KHALID AZIZ, MD

**Introduction**

There are several types of skin lesions and rashes that are common during pregnancy. Some are benign and confer no risk to the expectant mother or the fetus. However, some are symptoms of more serious pathology, and infectious causes of rashes may affect the mother at any trimester, though morbidity and mortality may be higher in one trimester over another.

With more and more people choosing not to vaccinate, we are seeing a decline in herd immunity. Combined with widespread human emigration trends, we are also seeing infectious diseases that were previously rare, or almost eradicated in North America. Being relatively immunosuppressed, pregnant women and their fetuses are at an increased risk of certain infections and are more susceptible to severe complications. Any of the STORCH infections—syphilis, Toxoplasma gondii, rubella, cytomegalovirus, herpes simplex—and others (human immunodeficiency virus, hepatitis B and C, parvovirus B19, enterovirus, varicella zoster virus [VZV], and *Leptospira* interrogans) can occur in pregnancy, with the gestational period determining the severity of the infection and their long-term effects.1

**Case Presentation**

A 31-year-old female, CM, presented to the urgent care center at 18 weeks of gestation with a 1-day history of a pruritic rash, consisting of discrete erythematous papules and vesicles with bilateral dermatomal distribution. There were some intact vesicles while some had ruptured and were covered by a golden crust. The rash was limited to her neck, upper extremities, and torso. CM also had similar lesions and shallow ulcers on her soft palate on tonsils associated with sore throat. The patient reported a low-grade fever a few days prior to onset of the rash. She also reported being fully immunized as a child, and that she never had VZV in the past. She did, however, report being in India recently; soon after she left, CM found out that two of her household contacts had been diagnosed with chickenpox.

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A PREGNANT MOTHER PRESENTING TO URGENT CARE WITH CHICKENPOX

Differential Diagnosis
Pregnancy-specific noninfectious dermatoses that present as pruritic raised lesions include:
- pruritic urticarial papules and plaques of pregnancy (PUPPP)
- prurigo of pregnancy
- intrahepatic cholestasis of pregnancy
- pemphigoid gestationis
- impetigo herpetiformis
- pruritic folliculitis of pregnancy

The presentation and the treatment of each tend to overlap, with some exceptions, and the pregnancy outcomes range from no significant adverse effects to intrauterine fetal demise. Infectious causes of rash in pregnancy are vast, including the STORCH infections mentioned previously.

Disposition
CM was diagnosed with VZV based on her history and physical exam. She had the characteristic rash of VZV—papules, vesicles, and pustules, at different stages of development, on erythematos base (Figure 1 and Figure 2). After consulting with the infectious disease specialist, CM was admitted to the hospital to receive IV acyclovir.

Lab Tests
The diagnosis is clinical. If in doubt, skin scrapings from the base of vesicle can be used for viral DNA testing through PCR with high sensitivity and specificity. Other options include direct fluorescent antibody testing and viral culture.

Discussion
VZV is a DNZ virus, part of the herpes virus family, and is highly contagious. Humans are the only hosts of VZV, and the virus infects through nasopharyngeal mucus membranes and conjunctivae. After an incubation period of 10 to 21 days, the patient experiences nonspecific symptoms of malaise and low-grade fever. After about 5 to 7 days, the patient develops the characteristic rash—pruritic or painful vesicular lesions on erythematous base, appearing in crops, some crusted over, others intact (again, see Figure 1 and Figure 2).

In the immunocompetent population, VZV rarely leads to serious complications. However, if the infection occurs during pregnancy, or in the otherwise immuno-
suppressed patient, the complications are severe; VZV infection is one of the STORCH infections of pregnancy.1

In the United States, there are approximately 1.2 cases of VZV per 10,000 pregnancies and the incidence of VZV pneumonia, one of the most common complications of VZV in pregnancy, is 2.5%.7 VZV pneumonia presents with cough, dyspnea, and tachypnea, and can rapidly progress to respiratory failure.8 Another complication of VZV in pregnancy is congenital varicella syndrome, which consists of defects of the central nervous system, skin, limbs, and subcutaneous tissues, with the most common consequences being intrauterine growth restriction and low birth weight.6,9 Viral transmission to the fetus can occur through the placenta, or via respiratory droplets or direct skin contact in the postnatal period.10 If the infection occurs in the first 20 weeks of gestation, the risk of congenital varicella syndrome is much higher than if the infection occurred later in the pregnancy.6,9

After recognizing VZV infection, treatment should be started right away. For “uncomplicated” varicella infection, which consists only of the rash, treatment is oral or intravenous acyclovir 800 mg five times a day with serial prenatal ultrasound monitoring. If complications arise, such as varicella pneumonia, treatment consists of hospitalization and IV acyclovir 10 to 15 mg/kg of body weight every 8 hours for 5–10 days. That treatment should begin within 24 to 72 hours of rash onset.

If the onset of maternal rash occurs between 5 days before and 2 days postdelivery, the neonate requires varicella immunoglobulin vaccine.11 While no formal trials have been done in pregnant women exposed to acyclovir, a prospective registry of women and their infants exposed to oral or IV acyclovir during various stages of their pregnancies did not show a significant increase in the rate or type of birth defects compared with the general population.12

Take-Home Points

Pregnant women and their fetuses are susceptible to a wide array of unique conditions, including common and uncommon infectious diseases. Relatively benign infections can have devastating consequences in this special population. As more and more people are choosing not to vaccinate, and with increasing human migration rates, infections that were previously considered rare in North America are making a comeback—with chickenpox being one with potentially serious consequences for the mother and the baby if it occurs in first 20 weeks of pregnancy or in the perinatal period. It is important to quickly recognize this characteristic rash and provide prompt treatment to avoid lifelong complications, and to reduce morbidity and mortality. ■

References
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entrepreneurs, including physicians and physician groups looking for a new business opportunity like owning their own urgent care practice, must understand several key aspects of a commercial lease.

Typically, urgent care centers are located in retail spaces in an attempt to drive patient visits through visibility and traffic from nearby stores that appeal to the same target demographic. Retail developers are doing their part to encourage more urgent care tenants by designing more intimate, walkable shopping centers that focus on entertainment and everyday needs.1

Urgent care owners should realize that a commercial lease is significantly different from a residential lease. You may recall the consequences of breaking an apartment lease typically include the loss of the security deposit and perhaps a penalty equal to one month's rent. However, breaking a commercial lease has much more serious consequences—ones that may severely impact your business.

Commercial Leases are Grounded in Contract Law

Courts generally treat a commercial lease as a contract and, in the absence of a provision in the lease to the contrary, ordinary contract principles apply.2 That notion is critical; how a lease is interpreted and enforced depends on what terms are specifically included in the lease.

The principles of landlord tenant law, designed to protect families from sudden and unfair eviction, are not applicable to a commercial lease.3,4 When a commercial lease is broken or “breached,” the contract dispute may be litigated. If a commercial landlord claims a breach of contract, the landlord will need to show:

1. That a contract existed
2. The parties' obligations under the contract
3. The nature of the breach
4. That the breach was material to the contract
5. Whether the breaching party has a legal defense to enforcement of the contract
6. The damages caused by the breach

However, a majority of courts have held that a lease can't be forfeited for a trivial or technical breach—even when the parties have specifically agreed that “any breach” gives rise to the right of termination.5 Thus, courts hold that to justify forfeiture, the breach must be “material, serious, or substantial.”6 For example, a lease may stipulate that the tenant keep the flower beds maintained; while a few weeds won't lead to termination, not paying the rent for several months will.

Remedies

When a landlord terminates a lease following the default of a tenant, the tenant is obligated to pay the rent due prior to the termination. However, the tenant has no obligation to pay any rent that accrues after the termination unless the lease provides otherwise.7 In most instances, a commercial lease drawn up by legal counsel will have a remedies clause that outlines what will occur if a party breaches the contract.

If an urgent care center owner defaults under a commercial lease, the landlord (and its attorney) will consult the lease agreement that both parties signed. A landlord who doesn't have an adequate remedy following breach of the lease by a tenant has
HEALTH LAW AND COMPLIANCE

“only itself to blame for entering into a lease that failed to provide such a remedy.” A court won’t “disrupt the settled expectations of leasing parties in order to protect a landlord from the consequences of failing to insist on an adequate remedy in the negotiation of a commercial lease.” If the landlord failed to include sufficiently detailed default remedies in the commercial lease, they won’t have the standing to protect their position.

A landlord’s remedies in case of breach are not set by law, but rather, negotiated into the lease contract.

Typically, a commercial lease will contain these default remedy clauses:

- **Re-entry upon default.** The circumstances for the landlord’s right of re-entry should be specifically detailed in the lease, such as the nonpayment of rent, breach or nonperformance, failing to occupy, abandoning the premises, or using the premises for an unauthorized purpose. A landlord may also include a right to accelerate rent (discussed below) which is automatically triggered when the right of re-entry is exercised.

- **Lease termination.** If a landlord is given the right to re-enter and take possession of the property, it will want the right to terminate the lease, if necessary. This right of termination should be specified in the lease, and should only be exercised upon written notice to tenant.

- **Acceleration of payments.** An acceleration clause in a commercial lease allows the landlord to declare that all amounts due under the lease for the balance of the agreement are immediately due and payable upon the default. For example, once a tenant abandons the property prior to expiration of the lease, a “landlord [is] within its rights under New York law to do nothing and collect the full rent due under the lease.”

- As an alternative to an acceleration clause, an urgent care center owner may negotiate a clause in lieu of accelerating the rent. This clause will frequently say that the defaulted tenant is only liable for the difference between the rent and other amounts it owes under its lease—and the rent and other charges actually collected by the landlord from any new tenant to whom the re-lease the property.

- **Repayment of unamortized tenant improvement allowance.** This is a lease provision that states that, upon default, the landlord gets back the money borrowed by the tenant for any improvement project. The lease will contain a provision in which the tenant agrees to pay back the landlord over the term of the lease.

- **Repayment of unamortized brokerage commissions.** The landlord may have unamortized transaction costs, such as tenant improvements, free rent, legal fees, along with brokerage commissions, that are typically amortized or spread out (with interest) over the entire lease term. The lease may state that the landlord will get those costs from the tenant in the event of a breach.

- **Late charges.** A lease may also contain a clause permitting the landlord to impose late charges for failing to pay rent or other additional rent obligations on time, and that states that the late charges are also additional rent. These terms are generally enforced by the courts. An urgent care center owner should also be aware of a stipulation in the lease that allows the landlord to exercise more than one remedy in a single default by the tenant (commonly termed “Cumulative Rights”).

A Tenant’s Legal Early Termination

Review the terms of your commercial lease to understand each party’s obligations in the event of an early termination. Typically, a tenant can only terminate a commercial lease before the lease term is over without liability if there’s a provision contained in the lease that allows for such action.

A tenant’s right to legally terminate a commercial lease, including assigning the lease or subleasing the space to another tenant, is only assured if the tenant negotiates an early termination option into the lease.

Common reasons for commercial tenants to request an early release are when they’ve outgrown the space and require more room, or their company has had a drastic decrease in size or is going out of business.

If your urgent care is in a desirable location, the landlord will be more willing to entertain an early termination of the lease. One option is to offer a lump-sum payment (perhaps 50 cents on the dollar). Here are a few of the “outs” for a tenant:

- **Break clause.** There may be a break clause that gives a tenant or a landlord the option to terminate a lease at least once during the term. This clause may be invoked by a party only when the conditions of the break clause are satisfied. Commercial landlords are usually very reticent to agree to a termination clause.

- **Assignment.** An urgent care owner may be able to transfer their interest in a leased property to another party before the original lease expires. An assignment must be written into the lease.

- **Subleasing.** A tenant can ask the landlord to sublease the property to another business for the rest of its lease. This also can be a clause negotiated into the lease. If it isn’t included, a tenant may still ask the landlord to consent to a sublease. Note that an assignment is the better option because the new tenant takes 100% of your obligations. In addition, know that it’s common for a lease to contain a term that stipulates that the landlord to has the
right to approve of any possible new tenants under an assignment or sublease.

- **Co-tenancy.** This clause allows the tenant to leave if an important anchor tenant leaves; perhaps it’s the big box store or grocery that draws major traffic to the property.

- **Bailout clause.** This term lets a tenant be released from the lease if its sales don’t reach a predetermined level.

Remember that a landlord must make reasonable efforts to mitigate damages when a tenant breaches the lease and abandons the property, provided the commercial lease doesn’t say otherwise. That means making a good faith effort to rent the property.

Finally, the parties are always free to negotiate to modify the length of the term at any time during the lease.

**Conclusion**

Work with a business attorney when first negotiating the lease for your urgent care center. Breaking a commercial lease will be much easier—and less costly—if you anticipate the scenarios discussed in this article and negotiate to include as many as possible into your lease agreement.

**References**

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A 9-Year-Old Girl Who Choked on a Chicken Nugget

Case

The patient is a 9-year-old girl who is brought in by her parents shortly after choking on a chicken nugget. They are concerned because even though she stopped gagging, she complains that it feels "like there’s something stuck in there.”

View the images, ordered to rule out a lodged foreign body, and consider what the diagnosis and next steps would be. Resolution of the case is described on the next page.
Differential Diagnosis
- Allergic reaction
- Hematoma
- Inflammation
- Soft tissue emphysema
- Soft tissue infection

Diagnosis
This patient was diagnosed with soft tissue emphysema, which can cause discomfort—what this patient perceived as a foreign body sensation. In this case it arose from pneumomediastinum tracking into the neck soft tissues (confirmed on the subsequently performed chest radiograph).

Learnings/What to Look for
- Streaky hypodensities in the soft tissues of the neck compatible with gas
- This was like secondary to raised intrathoracic pressure from coughing after choking on food. Other possibilities for soft tissue emphysema include penetrating trauma and infection with a gas forming organism.

Pearls for Urgent Care Management and Considerations for Transfer
- Transfer to the ED for consideration of CT imaging to evaluation for perforation, Boerhaave’s syndrome
- If the patient is hemodynamically unstable, start IV access and IV fluid resuscitation while awaiting transfer

Acknowledgment: Images courtesy of Teleradiology Specialists.
A 52-Year-Old Man Who Is Lightheaded and Dizzy

Case
The patient is a 73-year-old woman who presents to the urgent care center with palpitations she says she first noticed 12 days ago. There is no associated chest pain, shortness of breath, abdominal pain, or paresthesias. The patient states she takes warfarin, with recent INR of 2.2. Her personal medical history includes atrial fibrillation, and there is a history of heart disease within the family.

Upon examination, you find:

- **General**: A&O, NAD, WNWD
- **Lungs**: CTAB
- **Cardiovascular**: RRR without m,r,g
- **Abdomen**: Soft and NT, without t/r/g
- **Ext**: No peripheral edema, pulses are 2+ and equal in all extremities

View the ECG taken and consider what the diagnosis and next steps would be. Resolution of the case is described on the next page.
**Differential Diagnosis**
- Atrial flutter with intermittently paced beats
- Inferior STEMI
- Wolff Parkinson White
- Third-degree AVB
- Sinus bradycardia

**Diagnosis**
This woman was diagnosed with atrial flutter with intermittently paced beats.

The ECG reveals a regular rate of approximately 70 beats per minute. Sinus bradycardia is a rate <60 beats per minute. There is no evidence of ST elevation in the inferior leads (II, III, aVF).

The ECG of Wolff Parkinson White reveals a gradual upsloping of the initial reflection of the QRS complex, called delta wave, and additional ECG finds may include a shortened PR interval (<120ms), a widened QRS complex, and ST/T wave changes; these changes are not present on this ECG.

In third-degree AV block, there is dissociation between atrial and ventricular depolarizations; again, not present here.

This ECG shows pacer spikes consistent with an intermittently paced ECG with an underlying rhythm likely atrial flutter, as evidenced by flutter waves in leads V1 and V2.

**Learnings/What to Look for:**
- Pacer spikes may occur with every beat or be “demand” (ie, present only when the pacemaker senses a need to fire, as present in this ECG; see the lead II “rhythm strip” at the bottom of the ECG)
- Atrial flutter is a regular rhythm and often present in patients with a history of atrial fibrillation
- The “saw tooth” pattern is best seen in leads II and V1. These are the atrial depolarizations and are usually blocked 2:1, leaving a rate which is often 150
- As with atrial fibrillation, atrial flutter confers a risk of CVA, so the need for anticoagulation should be considered

**Pearls for Urgent Care Management and Considerations for Transfer**
- Establish the presence of a pacemaker with the patient and compare with an old ECG
- If the patient has an automatic implantable cardiac defibrillator (AICD) and there are intermittent shocks occurring, it will need to be emergently interrogated in the ED or with their cardiologist
- In patients with palpitations, chest discomfort, shortness of breath, diaphoresis, weakness, or dizziness and if present, consider emergent ED referral to evaluate for ischemia/infarction or electrolyte abnormalities
- Asses vitals for signs of hemodynamic instability such as tachycardia, hypotension, dizziness, or confusion
- If there is concern for ischemia, transfer to the ED for emergent evaluation
A 50-Year-Old Farmer with Flu-Like Symptoms

Case
The patient, age 50, is a farmer who presents with flu-like symptoms—fever, chills, productive cough, myalgia, and pleuritic chest pain that developed over a few weeks. What worried him most, however, was a crusted lesion on his arm that was a large verrucous scaly plaque.

View the photo and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.
Differential Diagnosis
- Blastomycosis
- Coccidioidomycosis
- Tularemia
- Histoplasmosis

Diagnosis
This patient was diagnosed with blastomycosis, also known as Gilchrist disease and North American blastomycosis. By any name, it is an infection caused by the dimorphic fungus Blastomyces dermatitidis, a soil organism endemic to much of North America, though other foci have been reported in southern Africa, the Middle East, and India.

Learnings
- Blastomycosis is endemic to the midwestern, north-central, and southeastern parts of the United States
- Infection can involve almost any organ in the body, although the most commonly involved sites are the lungs, followed by the skin, bones, and genitourinary tract
- Infection can manifest acutely as a flu-like illness or pneumonia, or with a more indolent chronic pulmonary infection. Cutaneous manifestations can include crusted verrucous or ulcerated skin lesions which often have irregular borders and range in color from gray to violet
- The incubation period from exposure to onset of pulmonary symptoms is about 3-6 weeks
- Most patients present with cough, fever, sputum production, and chest pain with shortness of breath. One-third will have weight loss and night sweats; 1 in 4 will have hemoptysis

Pears for Urgent Care Management and Considerations for Transfer
- Acute respiratory distress syndrome has been described in blastomycotic pneumonia, although overall it is not that common
- Roughly half of cases can clear spontaneously within 1 to 2 weeks, or progress to a disseminated form that produces extrapulmonary manifestations in other organs, most commonly the skin and bones
- Mortality rates in naturally acquired infections are about 5%, though in immunocompromised patients it is 29%; in patients HIV, it is 40%

Acknowledgment: Images courtesy of VisualDx.
REVENUE CYCLE MANAGEMENT Q&A

ICD-10 Codes for Influenza and Code Changes for Influenza Vaccine Codes

DAVID E. STERN, MD, CPC

Q. What changes has CMS made for influenza vaccine coding this season?


The Centers for Medicare and Medicaid Services (CMS) have also released pricing information for the vaccines they cover; that can be found at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Part-B-drugs/McrPartBDrugAvgSalesPrice/VaccinesPricing.html.

There were no new codes to report for the season, but three products were removed from the list:

- Flublok (RV3), 0.5 mL single-dose vial for ages 18 years and older, CPT code 90673
- Fluzone Intradermal (IIV4-ID), 0.1 mL single-dose microinjection system for ages 18 through 64 years, CPT code 90630
- Fluvirin (IIV3), 0.5 mL single-dose vial and 5.0 mL multidose vial, ages 4 years and older, CPT codes 90656 and Q2037, respectively

“Please note that CMS will still reimburse CPT code 90656 for the Afluria (IIV3) 0.5 mL single-dose syringe vaccine for ages 5 years and older.

Remember to bill the correct vaccine administration code(s) along with any vaccine(s) given. When billing Medicare, you will use the following HCPCS codes for influenza, pneumococcal, and hepatitis B:

- G0008, “Administration of influenza virus vaccine”
- G0009, “Administration of pneumococcal vaccine”
- G0010, “Administration of hepatitis B vaccine”

CPT offers vaccine administration codes based on whether there is only one or multiple vaccines administered, the age of the patient, the number of components in the vaccine, and if face-to-face counseling was provided. When billing your commercial payers, you have the following administration codes to choose from:

- 90460, “Immunization administration through 18 years of age via any route of administration, with counseling by physician or other qualified health care professional; first or only component of each vaccine or toxoid administered”
- 90461, “...each additional vaccine or toxoid component administered (List separately in addition to code for primary procedure)”
  - Use 90460 for each vaccine administered. For vaccines
“A few years ago, ICD-9 provided three codes to choose from (excluding the avian, H1N1, and novel types); now we have 17 to allow better specificity.”

with multiple components (combination vaccines), report 90460 in conjunction with 90461 for each additional component in a given vaccine.

- 90471, “Immunization administration (includes percutaneous, intradermal, subcutaneous, or intramuscular injections); 1 vaccine (single or combination vaccine/toxoid)”
- 90472, “...each additional vaccine (single or combination vaccine/toxoid) (List separately in addition to code for primary procedure)”
- Use 90472 in conjunction with 90460, 90471, and 90473
- 90473, “Immunization administration by intranasal or oral route; 1 vaccine (single or combination vaccine/toxoid)”
- 90474, “...each additional vaccine (single or combination vaccine/toxoid) (List separately in addition to code for primary procedure)”
- Use 90474 in conjunction with 90460, 90471, and 90473

Q. What diagnosis code is assigned when a rapid influenza test is positive for influenza A? My coder assigned code J09.X2, “Influenza due to identified novel influenza A virus with other respiratory manifestations” but that translates to bird flu, which is incorrect.

A. Assigning a diagnosis code for influenza seems a little more challenging since the onset of using ICD-10 codes. A few years ago, ICD-9 provided three codes to choose from (excluding the avian, H1N1, and novel types), and now we have 17 to allow better specificity. When testing has identified the influenza genus (eg, influenza A, influenza B, etc.), you would assign a code from the following options:

- J10.00, “Influenza due to other identified influenza virus with unspecified type of pneumonia”
- J10.01, “Influenza due to other identified influenza virus with the same other identified influenza virus pneumonia”
- J10.08, “Influenza due to other identified influenza virus with other specified pneumonia”
- J10.1, “Influenza due to other identified influenza virus with other respiratory manifestations”
- J10.2, “Influenza due to other identified influenza virus with gastrointestinal manifestations”
- J10.81, “Influenza due to other identified influenza virus with encephalopathy”
- J10.82, “Influenza due to other identified influenza virus with myocarditis”
- J10.83, “Influenza due to other identified influenza virus with otitis media”
- J10.89, “Influenza due to other identified influenza virus with other manifestations”

When influenza is diagnosed and testing has not been performed or was not positive for a specific genus, choose from the following options:

- J11.00, “Influenza due to unidentified influenza virus with unspecified type of pneumonia”
- J11.08, “Influenza due to unidentified influenza virus with specified pneumonia”
- J11.1, “Influenza due to unidentified influenza virus with other respiratory manifestations”
  – Includes influenza, NOS, influenza laryngitis, NOS, influenza pharyngitis, NOS, and influenza with upper respiratory symptoms, NOS
- J11.2, “Influenza due to unidentified influenza virus with gastrointestinal manifestations”
- J11.81, “Influenza due to unidentified influenza virus with encephalopathy”
- J11.82, “Influenza due to unidentified influenza virus with myocarditis”
- J11.83, “Influenza due to unidentified influenza virus with otitis media”
- J11.89, “Influenza due to unidentified influenza virus with other manifestations”

In the very rare situation that you might need to assign an ICD-10-CM code for an infection with a novel influenza virus, look to codes in the J09.X, ‘Influenza due to identified novel influenza A virus’ category.”

- J11.2, “Influenza due to unidentified influenza virus with gastrointestinal manifestations”
- J11.81, “Influenza due to unidentified influenza virus with encephalopathy”
- J11.82, “Influenza due to unidentified influenza virus with myocarditis”
- J11.83, “Influenza due to unidentified influenza virus with otitis media”
- J11.89, “Influenza due to unidentified influenza virus with other manifestations”

In the very rare situation that you might need to assign an ICD-10-CM code for an infection with a novel influenza virus, look to codes in the J09.X, “Influenza due to identified novel influenza A virus” category.”
Patients who heed your advice to get a flu shot and take common-sense measures to avoid spreading germs—regular, effective handwashing; cleaning common-use surfaces; staying home when they’re sick—are less likely to get the flu. That’s a given. What’s less clear in the midst of any flu season is how many of them do so (and at what point), and how effective the vaccine is for those who do receive it.

The Centers for Disease Control and Prevention has released retrospective data on each of those questions. As they say in the financial services advertisements, these results are no guarantee of future performance; however, the data do give us a good sense of how things have been trending. And when patients do present with the flu, in spite of your best efforts to prevent that, bear in mind the strategies laid out in this month’s cover article (Treating Patients Infected with Influenza Virus in the Urgent Care Setting, on page XX).
