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LETTER FROM THE EDITOR-IN-CHIEF

Do the MACRA’ena—Part II

In my last column, I tried to explain the complicated math involved in calculating the potential financial impact of MACRA/MIPS on urgent care centers. Of course, all of the potential return depends on implementing quality improvement programs that meet the measurement and reporting expectations outlined by the Centers for Medicare and Medicaid Services. So, in this column, we will explore the core categories in more detail, and share some practical examples of urgent care-relevant measures within each one.

The MIPS program has three core components that contribute to your overall bonus calculation: six Quality measures (60% of score), two Performance Improvement (PI) activities (15%), and six Advancing Care Information (ACI) measures (25%). Let’s look at the hundreds of Quality measures first. Not surprisingly, many are not very urgent care relevant. Among these, however, are others you can probably relate to:

- Acute Otitis Externa (AOE): Avoidance of Systemic Antimicrobial Therapy
- Adult Sinusitis: Appropriate Choice of Antibiotic
- Appropriate Testing for Children with Pharyngitis
- Use of Imaging Studies for Low Back Pain
- Tobacco Use: Screening and Cessation Intervention
- Appropriate Treatment for Children with Upper Respiratory Infection (URI)
- Influenza Immunization

Next, let’s explore the PI activities. Beyond simply measuring data, these initiatives look to initiate systematic practice changes that improve performance. Here are some reasonably relevant examples:

- Annual registration in the Prescription Drug Monitoring Program
- Implementation of improvements that contribute to more timely communication of test results
- Regularly assess the patient experience of care through surveys, advisory councils and/or other mechanisms
- Use of decision support and standardized treatment protocols

Next, there’s ACI, which replaces the old “Meaningful Use” requirement and necessitates some cooperation from your EHR vendor. Examples include:

- Patient Education
- Patient Portal
- Medication Reconciliation
- Health Information Exchange
- E-Prescribing
- Security Risk Analysis

The final Composite Performance Score used to determine your final payment incentive (or penalty) is calculated as follows:

\[(\text{Quality Base} + \text{Quality High Performance Bonus}) \times 60\% + (\text{ACI Base} + \text{ACI Performance} + \text{ACI Bonus}) \times 25\% + \text{Improvement Activities} \times 15\%\].

Of course, eligible providers that choose not to participate at all will be given a Composite Performance Score of 0. Once composite scores are calculated on all eligible providers, a performance threshold is identified. Penalties and bonuses are based on whether you/your practice fall above or below the threshold. Since I am certain that your head is spinning by now, here are a few take-home messages:

1. If you participate in 2017, you are likely to receive a bonus, even if you submit limited data for a partial year.
2. If you do not participate, you will almost certainly be penalized.
3. If you put the work in and gather most, or all, of the data, you are likely to receive a bonus multiplier (“super bonus”).

While it is my hope that this summary helps simplify the MIPS program, I regret to inform you that more work is ahead if you actually participate. My goal has been to demonstrate the potential revenue impact, demystify the reporting categories, and help you translate into the urgent care environment. Good luck!

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

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Approach to the Child with Chest Pain

Chest pain in children is usually less concerning than it is in adults—but not always. Understanding what to look for can save a child’s life.
Sabah F. Iqbal, MD, FAA and Hansel J. Otero, MD
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JUCM The Journal of Urgent Care Medicine supports the evolution of urgent care medicine by creating content that addresses both the clinical practice of urgent care medicine and the practice management challenges of keeping pace with an ever-changing health-care marketplace. As the Official Publication of the Urgent Care Association of America and the Urgent Care College of Physicians, JUCM seeks to provide a forum for the exchange of ideas regarding the clinical and business best-practices for running an urgent care center.

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When an adult of any age utters the words "chest pain," a sense of urgency takes hold. The highest-risk possibilities need to be ruled out immediately. It’s a different story with children, for a number of reasons. Statistically, it’s more common. And the likelihood of life-threatening etiologies is much lower. Don’t be fooled into a false sense of security by those facts, though—the importance of establishing that the cause is relatively benign is still great.

That’s one of the key messages of our cover article this month. Approach to the Child with Chest Pain (page 11), by Sabah F. Iqbal, MD, FAAP and Hansel J. Otero, MD uses the case of a 12-year-old, otherwise healthy boy to introduce concepts that can help you get to the root of what’s causing a child’s chest pain so you can assure the patient—and his parents—that there really is nothing to worry about, or prescribe the quickest course of action to addressing any problems.

Dr. Iqbal is medical director of PM Pediatrics in Rockville, MD and assistant professor of pediatrics and emergency medicine at The George Washington University School of Medicine and Health Sciences. Dr. Otero is a radiologist at Children’s Hospital of Philadelphia.

An obstructed aorta is more likely to be recognized immediately as a truly urgent event—once it’s identified—in any setting. And in the urgent care setting, it should be suspected in every patient who presents with back pain and a history of peripheral vascular disease and atrial fibrillation, according to Acute Occlusion of the Abdominal Aorta in a Patient with Severe Peripheral Vascular Disease and Untreated Atrial Fibrillation (page 29), a case report by Kristopher Palmer, DO and JM Alderson, DO, PGY-2. Dr. Palmer and Dr. Alderson both practice at University Hospitals Richmond Medical Center in Richmond Heights, OH.

In this month’s Health Law and Compliance feature, Alan A. Ayers, MBA, MACc covers some of the implications of urgent care centers branching out, location-wise, into spaces historically occupied by retailers. First and foremost, at least in Understanding the Ins and Outs of Triple Net Leases (page 36), there are things it will be helpful to understand about one lease arrangement that could benefit you, provided you know what to look for and what you’re agreeing to.

Mr. Ayers, who is vice president of strategic initiatives for Practice Velocity, LLC and is practice management editor of JUCM, also shares his considerable expertise on the business side of urgent care in Why Urgent Care Needs More Controllers, Fewer Empathizers (page 17). This Practice Management article explains that certain personality types—controllers, in this case—are better suited than other types for certain customer service-oriented responsibilities in the urgent care center.

Laurel Stoimenoff, PT, CHC looks at another aspect of running a successful urgent care center in her latest column. More specifically, she reminds us that the steady, ongoing growth in the number of urgent care centers across the country, as well as uncertainty over evolving payment models, have led more operators than ever to look at occupational medicine as one way to reach more patients in more settings—and bring in more revenue as a result. From the UCAOA CEO appears on page 9.

Also in this issue:
Glenn Harnett, MD points out the urgent care-relevance of key research published recently across the medical literature. This month, he considers articles on adults with persistent symptomatic asthma, as well as how bed linens may play a part in keeping children with asthma out of the emergency room; and the rate of opioid prescriptions for patients with migraines (if you’re wondering, it’s still too high despite much discussion of reducing opiate prescriptions across the board). See page 32 for these, and more.

And in Revenue Cycle Management (page 38), David Stern, MD, CPC gives advice on how to code in order to receive maximum reimbursement when administering nebulizer treatments for acute airway obstruction during an exacerbation of asthma or wheezing due to an upper respiratory ailment.

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CONTINUING MEDICAL EDUCATION

Release Date: October 1, 2017
Expiration Date: September 30, 2018

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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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CONTINUING MEDICAL EDUCATION

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Approach to the Child with Chest Pain (p. 11)
1. What is the most common cause of chest pain in children?
   a. Pericarditis
   b. Myocarditis
   c. Musculoskeletal
   d. Myocardial ischemia
   e. Endocarditis

2. Which of the following suggests acute pericarditis?
   a. An S3 gallop
   b. An S4
   c. A friction rub
   d. A click
   e. A holosystolic murmur heard at the right upper sternal border

3. A diagnosis of pneumonia in children may be made clinically or radiographically.
   a. True
   b. False

Why Urgent Care Needs More Controllers, Fewer Empathizers (p. 17)
1. When hiring for patient-facing roles (“customer service” in urgent care), which of the following are true?
   a. Customer service jobs attract a certain “type.” There is little variance in personality among those who seek customer service jobs
   b. There are generally eight different “types” of customer service representatives with distinct personalities and approaches to the job
   c. Empathy with patients is the most important consideration when hiring front-line staff in urgent care
   d. The take-charge “controller” personality has been proven most effective in dealing with and resolving patient complaints
   e. B and D

2. A discussion of “functional shifting” includes which of the following concepts?
   a. Tasks that previously were accomplished by paid employees are now done directly by customers
   b. Having customers do low-complexity tasks is cheaper than paying employees to do the tasks
   c. Customers generally prefer handling low-complexity tasks themselves
   d. When customers need live/in-person assistance, the problem at hand tends to be high in complexity
   e. All of the above

3. Which of the following is true about the “controller” personality in customer service?
   a. Managers generally prefer to hire controllers over empathizers
   b. Controllers are generally turned off by rigid guidelines, strict procedures, and inflexible standards
   c. Controllers’ strengths include quickly assessing a problem and arriving at a quick, effective solution
   d. Manager-led on-the-job training has proven effective at cultivating controller behaviors
   e. All of the above

Case Report: Acute Occlusion of the Abdominal Aorta (p. 29)
1. What is/are the most common cause(s) of abdominal aortic occlusion?
   a. Cardiac embolism
   b. Syphilis
   c. Infection
   d. Aortic dissection
   e. All of the above

2. Which of the following risk factors place a patient at risk of acute abdominal aortic occlusion?
   a. Atrial fibrillation
   b. Atherosclerosis
   c. Hypertension
   d. Smoking
   e. All of the above

3. Which of the following are complications of acute aortic occlusion?
   a. Limb amputation
   b. Death
   c. Paralysis
   d. Acute renal failure
   e. All of the above
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Occupational Medicine Boosts Sustainability and Growth

LAUREL STOIMENOFF, PT, CHC

Ongoing growth in the urgent care marketplace, coupled with uncertainty about future payment models, has inspired many operators to expand their product offerings to include occupational medicine.

According to the National Academy of Social Insurance, injured workers’ medical benefits exceed $31 billion per year. Yet, according to UCAOA’s annual Benchmarking Report, it represents a small percentage of revenue for many centers. Astute employers seek cost-effective alternatives to the emergency department for their workforce. Onsite radiology, lab, and medical services augmented by a 7-day schedule render the urgent care center an attractive option for workers and employers.

While the synergies of acute primary care and occ med abound, there are nuances associated with caring for injured workers and the new customer in the room: the employer. Urgent care operators must ensure that their administrative, communication, and clinical processes address the triggers that ensure not only a positive patient outcome, but also a favorable employer experience. As one employer once said to me, despite a long history of providing care for their injured workers, “You’re only as good as the last one treated.” This is a service line where relationships determine results, and urgent care centers need to adjust their delivery model or, if multisite, consider selecting several geographically appropriate occupational medicine centers of excellence.

Diversify Your Patient and Payer Base
Adding occ med services opens the door to new patient populations in the community. While traditional urgent care patients often seek care close to their home, injured workers seek services close to work. Adding occ med services taps into a new, nonresident population. While urgent care centers are prepared for illness and injury, illness tends to dominate unless an injured worker strategy is pursued. Additionally, increasing overall reimbursement per visit can be accomplished through a more favorable payer distribution. The National Council on Compensation Insurance reported that of the 42 states with industrial fee schedules, only two reimbursed some services less than Medicare, while most compensated providers an average of 130% of the Medicare fee schedule. Imagine favorable fee schedules with no patient responsibility toward payment.

Viability
The ever-changing healthcare landscape continues to put pressure on providers to secure strong reimbursement contracts with payers and to strengthen the bottom line. When urgent care expands to include occ med services, new channels of revenue become available. While employer satisfaction is essential, management of a work-related injury becomes a team sport, and a favorable patient experience is more likely to result in a positive clinical (and financial) outcome. A positive work-related injury experience in the urgent care center should translate to future traffic if it’s done right. Additionally, injured workers often require follow-up care, so while the cost of patient acquisition may be higher, it is more than offset by the revenue associated with the injury care.

Sustainability
Integrating occ med services allows urgent care to remain resilient to industry changes. Offering a variety of on-demand services empowers urgent care centers to keep pace with the demand for convenient, patient-focused healthcare options. Patients and employers share a common need: ready access to affordable, quality, one-stop healthcare.

Join us at the UCAOA Fall Conference October 26-28 in Anaheim, CA. Experts will offer insights on occupational medicine and much more. Visit ucaoa.org/2017Fall for details.
“Our service promise is not only quality of the reads, but they have to be done with speed because we want to get the final report in the patient’s hands before they leave the urgent care center.”

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Approach to the Child with Chest Pain

Urgent message: Chest pain is both more common and, typically, less concerning in children than in adults. If anything, however, this underscores the importance of guarding against a false sense of safety in low-risk causes, and maintaining vigilance for life-threatening etiologies.

SABAH F. IQBAL, MD, FAAP and HANSEL J. OTERO, MD

The case: A 12-year-old healthy African-American boy presents to urgent care with 2 days of midsternal chest pain, which is worse when he’s taking big breaths. It is not changed by exercise or rest, and no medications have been taken for the pain. While he has had a mild cough with runny nose, he has had no fevers, shortness of breath, vomiting, or palpitations. His mother is concerned about a heart attack, as occurred in his father just a few months previous. On examination, the patient is well appearing and in no distress with a HR of 103, RR of 18, a BP of 110/73, and an oxygen saturation of 99% on room air. His examination is significant only for tenderness to palpation along the left sternal border.

Relative to adults, acute chest pain in children is very common and generally much less worrisome. Fewer than 2% of cases with pediatric chest pain have a cardiac origin, and chest pain is rarely the presenting complaint in an otherwise healthy child with acute cardiac illness. While pediatric chest pain is often benign, a systematic approach is necessary to exclude potentially serious causes.

History and Exam Pearls
Musculoskeletal etiologies are the most common causes of pediatric chest pain; therefore, the presence of reproducible tenderness in the ribs or muscles is the best clinical indicator to suggest a benign cause (in the absence of other red flags). Muscular or bony tenderness can occur from the growing pediatric skeleton (costochondritis), from a muscle strain (eg, lifting weights), or from a coughing illness causing muscle strain or, rarely, a fractured rib. Chest pain can also be caused by coughing itself; the etiology of cough should be sought and simple upper respiratory infections should be differentiated from diseases of the lower airways and lung parenchyma.

A cardiac cause of chest pain is very unlikely if the child lacks a history of heart disease or cardiac surgery and denies palpitations, dizziness, dyspnea, cyanosis,
approach to the child with chest pain

syncope, and extremity edema. In a young child, palpitations are often described as a fast heartbeat or a racing heart, but may be described simply as chest pain. Both exercise-induced chest pain and dyspnea with exertion are uncommon in children, and these presentations always require further evaluation. Cardiac exam clues may be difficult to elicit in a young child, but attention to pertinent findings is important. A friction rub is suggestive of pericarditis; a murmur that gets louder with Valsalva maneuver (decreased venous return) is suggestive of a hypertrophic cardiomyopathy; hepatomegaly may be suggestive of depressed cardiac output. Patients with pericarditis or mediastinal masses often have chest pain that worsens when supine (restricted venous return) and improves when the child sits up or leans forward.

All cardiac exams should assess upper and lower pulses, extremity edema, and capillary refill. It is important to ask about family history of arrhythmias, heart disease at a young age, and sudden unexplained deaths (especially single car accidents) that may increase risk for underlying congenital heart disease. In adolescents, cardiac chest pain can occur from drugs of abuse, such as cocaine or heroin, or abusing medications, such as methamphetamine that cause significant tachycardia. Synthetic cannabinoids also can precipitate cardiac chest pain. A thorough history of medication use and drug abuse should be sought in all adolescent patients presenting with chest pain.

While wheezing is a fairly obvious cause of chest discomfort, some may have such severe bronchospasm that no breath sounds are diminished (known as the “silent chest”). Bronchodilator therapy will precipitate a wheeze in these children as the bronchospasm relaxes enough to allow air movement. Asymmetric wheeze in young children without a history of asthma should prompt concern for aspirated foreign body. Children with tachypnea, cough, or dyspnea with or without wheezing should have pulse oximetry testing that may signify poor air exchange or intrinsic lung disease.

Assessing a child’s general activity level is an important indicator to exclude a potentially serious cause. A child with chest pain who is very fatigued, for example, should be approached differently than a child who is well-appearing and active. Fatigue can be a sign of cardiopulmonary disease, infection, or depression.

Additional risk factors should be elicited when the cause of chest pain is not readily apparent. A pulmonary embolus, for example, is quite uncommon in pediatric patients but should be considered when risk factors are present, such as: underlying malignancy, nephrotic syndrome, obesity, prolonged immobilization, and adolescents taking birth control.

In the absence of obvious historical or exam indicators, attention to vital signs is imperative. Patients with tachypnea, tachycardia, hypoxemia, or hypertension without an obvious cause warrant further evaluation.

Differential Diagnosis

What’s common
1. Musculoskeletal (chest wall pain)
2. Wheezing/asthma
3. Gastroesophageal reflux
4. Pneumonia
5. Anxiety/panic attack

What not to miss
1. Pericarditis
2. Pneumothorax
3. Myocardial infarction
4. Pulmonary embolus
5. Dysrhythmia
6. Hypertrophic cardiomyopathy
7. Acute chest syndrome (sickle cell)

What to think about
1. Mediastinal mass
2. Airway or ingested foreign body
3. Thyroid storm
4. Iatrogenic/medication-induced

Musculoskeletal
Costochondritis
Costochondritis is related to growth spurts and is commonly seen in adolescents. The hallmark of costochondritis is the presence of reproducible chest pain, most often along the sternal border. Patients with costochondritis have no signs of cardiac compromise and should deny dyspnea, dizziness, syncope, and palpitations. Reassurance should be given to the parent, with nonsteroidal anti-inflammatory medications and heat packs for pain relief.

Muscle Strain/Chest Wall Pain
Chest pain from muscle strain or chest trauma is most common in adolescents who participate in weight-lifting or gymnastics. Pain is very localized and reproducible. In the case of trauma, there may be localized swelling or erythema. Imaging is rarely necessary, unless there is indication of deeper injury, such as shortness of breath, which may indicate a pulmonary contusion in the presence of significant blunt trauma. Rest, reassurance, and nonsteroidal anti-inflammatory medications are thera-
Muscular chest pain commonly occurs in young children with upper respiratory infections.

**Precordial Catch**

Precordial catch, also known as Texidor’s twinge, is a sharp, brief (a few seconds only) pain at the left lower sternal border or the apex. Etiology is unknown, but has been related to poor posture. Again, rest and reassurance are the most important therapeutic measures.1

**Pulmonary**

**Wheezeing**

Pulmonary disease accounts for approximately 2%–11% of chest pain in children, most frequently from wheezing and bronchospasm. Chest radiographs are not routinely necessary in patients with wheezing and chest pain unless the wheezing is focal and does not vary after bronchodilator therapy (or cough). If wheezing is the cause of chest pain, the symptoms should resolve with bronchodilator therapy and corticosteroids. Persistent chest discomfort may require further investigation.

**Pneumonia**

Children with pneumonia can be diagnosed clinically or radiographically. Children typically cannot expectorate mucus until at least 8 years of age, therefore clinical signs of pneumonia may include vomiting and abdominal pain, in addition to more typical symptoms of fever, cough, malaise, and tachypnea. While a chest radiograph may show an area of consolidation, radiographic findings often lag behind clinical findings, so a normal chest radiograph is common in the setting of early clinical pneumonia. Narrow-spectrum antibiotics (e.g., amoxicillin) should be initiated for routine community-acquired pneumonia. Patients with pneumonia complicated by hypoxemia, pleural effusions, or signs of empyema likely will require additional care past the scope of an urgent care center.

**Pulmonary Embolus (PE)**

Patients with PE generally present with dyspnea, pleurisy, and chest pain. An ECG may show right heart strain pattern (S1Q3T3) or other signs of right heart overload (ST-T wave changes); however, ECG findings are neither sensitive nor specific. Adolescents with dyspnea or tachypnea who have risk factors or ECG findings and no other obvious cause should be referred to a higher level of care for more comprehensive diagnostic testing and management.

**Pneumothorax**

Pneumothoraces can be spontaneous or secondary to...
pulmonary disease, such as asthma or cystic fibrosis. In pediatrics, both spontaneous and secondary pneumothoraces occur mostly in adolescent males. Spontaneous pneumothorax is more common in those with thin, tall bodies. While a spontaneous pneumothorax can occur at rest, more often it occurs after a brief increase in intrathoracic pressure with forceful coughing or sudden weight-lifting. Management of pneumothoraces depends on the relative volume and the physiologic status of the patient. Patients with small pneumothoraces who are comfortable may need only oxygen therapy via non-rebreather mask. Larger pneumothoraces and significant discomfort necessitate tube thoracostomy.

In patients with sickle cell disease, chest pain should prompt an immediate evaluation for ACS. ACS is the sickling of red blood cells within the pulmonary vasculature, resulting in vaso-occlusion, ischemia, and injury to the endothelium. ACS is the leading cause of death in patients with sickle cell disease. The diagnosis is made by the presence of a new infiltrate on chest radiography, plus one of the following: fever, tachypnea, chest pain, or hypoxemia. Pulmonary infection, inflammation, and bronchospasm can precipitate ACS. Vaso-occlusive crisis in the chest wall leading to hypoventilation can also result in ACS. Hypoventilation from narcotic administration or from pain can also result in the development of ACS. ACS is most commonly seen in children with Hgb SS ages 2-4 years old. ACS also more commonly occurs in children with a history of asthma.

Children with sickle cell disease and chest pain should be closely assessed for fever, hypoxia, and tachypnea. A low blood pressure is especially concerning for sepsis. Chest radiographs will show a new pulmonary infiltrate. Treatment consists of hydration, pain control, antimicrobials, and correction of any underlying anemia (if significant). While the role of corticosteroids is important in coexisting asthma, there is some reluctance in use with sickle cell chest pain because of some data demonstrating more frequent readmissions, longer hospital length-of-stay, stroke, and renal infarction.

**Gastrointestinal Tract**

**Gastroesophageal Reflux**
Ten percent of pediatric patients with chest pain will have gastroesophageal reflux. Chest pain as a presenting sign of gastroesophageal reflux is most common in older children and adolescents. Gastroesophageal reflux is most often described as a substernal “burning” and can be treated with dietary modification and medications, such as H₂ blockers, antacids, and proton-pump inhibitors. Patients with esophagitis chest pain can be trialed with a dose of “magic mouthwash” (lidocaine diphenhydramine-Mg/Al hydroxide), which can be both diagnostic and therapeutic if it relieves the pain.

**Esophageal Foreign Body (FB)**
Foreign bodies (eg, hot dogs, nuts, coins, and similar objects) can cause partial esophageal obstruction, mostly in toddlers. Patients may present with drooling, tripodning, difficulty breathing, pain with swallowing, or chest discomfort. Management depends on the object, duration of symptoms, and anatomic location, but most obstructing esophageal FBs will require transfer.

**CARDIAC**

**Pericarditis**
Pericarditis is an effusion around the pericardium, which often presents with a stabbing/sharp pain in the center of the chest along with tachycardia, palpitations, and a narrowed pulse pressure. An ECG may show diffuse ST elevation early in the course of the disease, T wave inversions later on, and low voltages throughout. A chest radiograph may show an enlarged cardiac silhouette. Pericarditis in children is most commonly secondary to enteroviral infection, Lyme disease, or rheumatologic...
disease but, regardless of etiology, requires prompt evaluation by a pediatric cardiologist.

**Myocarditis**
Myocarditis is a rare, potentially fatal, disease often caused by enteroviral infections. Chest pain is not a common complaint, but can be part of a clinical spectrum that may include tachypnea, tachycardia, abdominal pain, and lethargy. ECG may show a wide range of abnormalities, including ST wave abnormalities, low voltages, and QT prolongation. Radiograph of the chest often shows an enlarged cardiac silhouette. Myocarditis can worsen quickly, therefore immediate transport to a specialty center is indicated if there is concern for a myocardial infection or depressed cardiac output.

**MI in children**
MI in children is rare, with an incidence of 6.6 events per 1 million patient-years, most commonly following cardiac illness such as Kawasaki disease or myocarditis. MI can be related to anatomic abnormalities, such as anomalous coronary artery, aortic stenosis, or hypertrophic cardiomyopathy. Cases most commonly present in the preadolescent to adolescent years. The child’s chest pain will be exertional, therefore chest pain that is precipitated or worsens with exercise should prompt an ECG evaluation for signs of myocardial injury, as well as dysrhythmia. MI can occur after drug use, most commonly after cocaine, amphetamines, bath salts, or synthetic cannabinoids. Signs in pediatric patients should prompt referral to a pediatric cardiologist to evaluate for structural abnormalities and perform a cardiac catheterization if necessary.

**OTHER Psychogenic Causes**
Up to 9% of all patients presenting with chest pain will have a psychogenic etiology. This is more common in adolescents than in children, and is often precipitated by a stressful event. Many of these children will have underlying anxiety or depression. Simply discussing the stressful event or situation can help with the sensation of pain.

**Case conclusion:** The patient’s chest pain improved with ibuprofen, and his vital signs remained normal. He had a normal level of activity in the office and an unremarkable physical examination. His history was absent for red flags to suggest cardiac disease, foreign body aspiration, or other potential morbidities. No diagnostic testing was performed. He was discharged home with a diagnosis of chest wall pain and upper respiratory infection on NSAIDs, warm packs to the chest, and rest.

### Management Pearls
- Use of laboratory tests, chest radiographs, and ECGs is rarely necessary in evaluation of a child with chest pain. A focused history and physical exam with attention to vital signs is the best clinical aid for screening and evaluation.
- Red flags include: chest pain with exertion, shortness of breath, syncpe, palpitations, dizziness, history of cardiac disease, recreational drug use, and abnormal vital signs.
- For suspected chest wall pain or gastroesophageal reflux, using NSAIDs and heat packs or viscous lidocaine with Maalox can be both diagnostic and therapeutic.
- ECG is not a useful tool unless there are concerning signs or symptoms. Only 0.2% of pediatric patients with chest pain have an ECG finding that elucidates the cause of the pain.
- A chest radiograph is not generally helpful unless there is clinical suspicious for pneumothorax, cardiac disease, a mediastinal mass, radio-opaque esophageal foreign body, or intrinsic lung disease.
- Laboratory work is rarely indicated unless evaluating for systemic illness such as rheumatologic disease, infection, or malignancy. Use of D-Dimer or troponin testing is not appropriate for a pediatric patient in an urgent care setting.
- Children with persistently abnormal vital signs or concerning diagnoses require ongoing, higher-acuity care.

### References
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Why Urgent Care Needs More Controllers, Fewer Empathizers

**Urgent message:** The rise of self-service technologies means that when patients actually do need to interact with frontline staff to resolve a service issue, their more complicated issues, more stringent demands, and higher expectations require an opinionated and outspoken “controller” personality type to take control of the situation.

ALAN A. AYERS, MBA, MAcc

As urgent care relies on positive of word-of-mouth to drive new and repeat visits, a center not only must deliver an exceptional patient experience, but also resolve complaints and grievances quickly and satisfactorily. Since most problem resolution falls on the customer-facing staff, a question for urgent care operators is, “Which employee personality type is most effective at handling patient grievances—the one urgent care operators should target, hire, and train most often?”

The reflexive answer might be the employee who demonstrates empathy—the thinking being that an aggrieved patient or customer is likely to respond favorably to a representative who shows they understand their feelings. However, workplace studies and the accompanying data suggest that the reality is quite the opposite. Take-charge “controller” types have, surprisingly, shown to be the most adept at quickly and effectively resolving customer complaints.

So, what is a “controller,” what makes them so effective at fixing customer issues, and how should an urgent care operator go about training and staffing controllers going forward?

**Self-Care and Complex Customer Issues**

Across industries, the rise of self-service technologies (eg, apps, kiosks) has allowed customers to increasingly handle low-complexity issues themselves without the need for a live-agent interaction—an option they’ve shown to prefer. This concept of shifting rote work from paid employees to customers (the lowest cost resource) is called *functional shifting*. And although increased application of self-directed service channels has steadily reduced customer service costs, the consequence has been a rise in live customer interactions involving complex issues—along with a rise in frustrated customers.

Why are customers so frustrated? Because expectations have shifted, such that when they do interact with reps, aggrieved customers expect a knowledgeable and efficient advocate, with a solution at the ready. Unfortunately, companies continually underinvest in talented frontline reps who can effectively navigate complex customer problems, resulting in stressful, expensive, and reputation-damaging remediation attempts.

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Alan A. Ayers, MBA, MAcc is Vice President of Strategic Initiatives for Practice Velocity, LLC and is Practice Management Editor of *The Journal of Urgent Care Medicine*. The author has no relevant financial relationships with any commercial interests.
In short, today’s reps remain woefully unequipped to handle live interactions, leaving outraged customers little recourse except to share their negative experiences through social media.

**How Controllers Solve Problems**

CEB, a global best practice insights and technology consultancy, at the behest of their struggling client companies, set out to discover the optimal service representative profile for remediating complex customer issues.

Through diligent research, CEB identified seven distinct customer service rep profiles:

- **Empathizers** – Great listeners and empathizers
- **Accommodators** – Enjoy offering discounts and refunds
- **Controllers** – Opinionated and outspoken; tend to take control of the interaction
- **Rocks** – Optimistic and unflappable; don’t take things personally
- **Hard workers** – Sticklers for the rules; detail-oriented
- **Innovators** – Like improving processes and procedures; create novel ideas and options
- **Competitors** – Want to win and outperform colleagues; like to influence others’ points of view

Naturally, managers favor empathizers, and have tended to staff them most often. The hard data, however—gathered through global, cross-industry studies of nearly 1,500 reps—showed that controllers, the least favored, scored the highest across key performance management, customer service, and productivity metrics.

Overall, controllers do the best job of making the service interaction as quick and effortless as possible.

**Controllers: A Snapshot**

Why are controllers the least favored by managers, but the most effective? Controllers have strong personalities, are opinionated, and are confident in their knowledge and expertise. They’re driven to deliver fast and easy resolutions, and have little problem “going off script” if they feel the solution requires it. They can also quickly “triage” a problem, discern a customer’s personality, and evaluate the context of the interaction. They then use the information to guide the customer to their customized solution. To a controller, it’s all about arriving at the simplest and easiest resolution, regardless of the path they take to get there. And to a frustrated customer who has already spent time trying to resolve the issue, the candid, off-script, take-charge nature of the controller is more than a welcome respite—it’s a saving grace.

**Hiring and Training Controllers in Urgent Care**

Despite the best intentions, even the most dedicated urgent care center will occasionally get an aggrieved patient. Whether it’s an insurance/billing/copay mix-up, a modesty complaint, or a miscommunication during a provider-patient interaction, complex patient issues are sure to arise at some point. So, knowing that controllers handle problem resolution most effectively, how can an operator identify controllers among hiring candidates, as well as train existing employees to adopt controller-like attitudes and behaviors?

To attract controllers, pay heed to your job application messaging. Controllers tend to be interested in job listings that emphasize things like:

- Flexibility to express their personality
- Taking initiative
- Owning customer issues
- Being a self-starter
- The ability to think on their feet

By contrast, controllers are turned off by outdated job listings that suggest rigid guidelines, strict procedures, and adherence to inflexible standards. Avoid these types of descriptors.

Training existing staff to be more controller-like also requires a shift in training methodology. The typical...
teachings of product knowledge and rote processes, for example, must give way to teaching listening techniques and frameworks that mimic a controller’s naturally tendency to quickly diagnose a customer’s primary issue and arrive at a quick, effective solution. Additionally, supplemental on-the-job, manager-led training can help reps retain and master controller techniques better over time.

Conclusion

Urgent care centers will inevitably have patients with complex issues they can’t resolve on their own. Hence, centers should make a concerted effort to recruit, hire, and train controllers in service of the quickest and most effective resolutions possible—which helps garner highly coveted, positive word-of-mouth. Additionally, urgent care must work to develop a “controller-friendly” customer service culture that favors and rewards flexibility over rigidity, and assertiveness over conforming to outdated norms. Such a shift can help create an environment that allows controllers to flourish, and do what they do best—solve problems.

Summary

- Data from workplace studies suggest that staff with take-charge, “controller” personalities are better suited for resolving customer complaints quickly and effectively.
- Controllers are most likely to be drawn to job listings that stress:
  - Flexibility to express their personality
  - Taking initiative
  - Owning customer issues
  - Being a self-starter
  - The ability to think on their feet
- Controllers are most likely to be put off by job listings that stress:
  - Adherence to rigid guidelines
  - Strict procedures
  - Inflexible standards
- Training existing staff to be more controller-like is possible, but requires methodologies that focus on listening techniques and frameworks that are in step with the controller’s affinity for diagnosing the primary issue and arriving at an effective solution quickly.

Reference

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

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

A 25-Year-Old Man Who Hit His Finger with a Hammer

**Case**
The patient is a 25-year-old male who presents with pain over the distal phalanx of the middle finger. He says he hit it with a hammer while hanging a picture frame in his new apartment a short while ago. Pain is evident upon palpation over the distal phalanx of the middle finger, but there are no cuts or breaks in the skin. Neurovascular status is intact.

View the image taken (Figure 1) and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.
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**Differential Diagnosis**
- Mallet finger
- Dislocation
- Distal phalanx fracture
- Osteomyelitis
- Osteosarcoma

**Diagnosis**
The patient has a nondisplaced distal phalangeal fracture. The most telling sign is the subtle vertical lucency within the distal phalanx (see Figure 2).

**Learnings**
- A minimum of three x-ray views should be obtained; often, as in this case, the fracture will be seen on only one projection
- Consider localized images (such as a dedicated finger x-ray instead of a hand x-ray) to allow for better resolution and magnification
- Evaluate the x-ray for fracture fragments, lucency, disruption of the trabeculations, or a break in the cortex
- Neurovascular status should be established upon initial assessment

**Pearls for Initial Management and Considerations for Transfer**
- With evidence of an isolated fracture, splinting and outpatient follow-up is appropriate
- Specifically examine and document presence or absence of associated laceration, as this designates an “open fracture.” This may not change the urgent care management, but should prompt good cleansing as well as aftercare instructions, including warning of signs of infection and the importance of timely follow-up
- If there is an associated subungual hematoma, consider trephination for drainage. Nail removal is rarely required, even with large subungual hematomas
- Transfer with signs of infection, neurovascular compromise, intractable pain, or diagnostic uncertainty
A 42-Year-Old Woman with Anxiety and Palpitations

Figure 1.

Case
A 42-year-old woman with a history of anxiety presents, complaining of intermittent palpitations over the past 2 weeks. She says she has not taken any medication and denies chest pain, shortness of breath, diaphoresis, fever, or dizziness.

Upon exam, you find:
- **General:** Alert and oriented X 3
- **Lungs:** Clear to auscultation bilaterally
- **Cardiovascular:** Regular and tachycardic without murmur, rub, or gallop
- **Abdomen:** Soft and nontender without rigidity, rebound, or guarding
- **Extremities:** No pain or swelling, pulses are 2+ and equal in all 4 extremities

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

INSIGHTS IN IMAGES: CLINICAL CHALLENGE

Differential Diagnosis
- Ventricular tachycardia
- Atrial flutter
- Supraventricular tachycardia
- Atrial fibrillation
- Multifocal atrial tachycardia

Diagnosis
This patient has supraventricular tachycardia (SVT). The ECG reveals a tachycardic rate; the rhythm is regular, excluding atrial fibrillation and multifocal atrial tachycardia. There are no flutter waves, making the diagnosis of atrial flutter unlikely (also, the atrial flutter rate is typically 150). The QRS complexes are narrow, excluding ventricular tachycardia. P waves are not seen. The tracing is most consistent with supraventricular tachycardia. There are some ST depressions which could be a rate related ischemia. These generally resolve with the management of the SVT.

Learnings
- SVT is a regular, narrow complex and tachycardia rhythm
- The mechanism is a re-entrant tachycardia
- Distinguish from atrial fibrillation (irregular, irregular rhythm), atrial flutter (flutter waves and typical rate of 150), ventricular tachycardia (wide complex QRS), and sinus tachycardia (presence of p waves)
- Symptoms may include sensation of palpitations, lightheadedness, shortness of breath, chest pain, or weakness

Pearls for Initial Management and Considerations for Transfer
- Unstable patients displaying hypotension, confusion, diaphoresis, or chest pain should have an IV placed and be put on the monitor (if time allows), then transferred to an emergency department
- Stable patients may attempt the Valsalva maneuver by “bearing down” or postural modification by having the patient Valsalva, then having the clinician perform a passive leg raise
- Emergency department management will initially proceed with adenosine administration, while unstable patients may require cardioversion

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Figure 2.
Case
A 40-year-old woman visits your urgent care center several days after first noticing a rash of pruritic smooth papules on her trunk and intertriginous areas. She reports that she had been spending a lot of time in the pool with her children before they returned to school. Now she also has a fever and swollen glands, and complains of general malaise.

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**
- Allergic contact dermatitis
- Molluscum contagiosum
- Pseudomonas folliculitis
- Miliaria rubra

**Diagnosis**
The image shows evidence of *Pseudomonas* folliculitis, which is backed up by the other findings described. Also known as hot tub folliculitis, this is a subset of folliculitis (inflammation of the hair follicle), wherein hair follicles are infected with *Pseudomonas* bacteria. Outbreaks occur most commonly in people after bathing in a contaminated spa, swimming pool, or hot tub. It can also be associated with the use of contaminated loofah sponges (i.e., one that remain constantly wet in the shower) and contaminated water in the workplace. It also can be seen with higher incidence in patients on long-term antibiotic therapy for acne vulgaris.

**Learnings**
- *Pseudomonas* folliculitis is characterized clinically by tender or pruritic folliculocentric papules preferentially localized to the trunk, buttocks, and extremities.
- Typically, symptoms develop within 1-4 days after exposure to the contaminated water source.
- Infection can be associated with mild fever, malaise, lymphadenopathy, and leukocytosis. The cutaneous eruption usually fades within 7-14 days without therapy.
- Water sources contaminated with *Pseudomonas* are also associated with outbreaks of painful plantar nodules termed the “*Pseudomonas* hot-foot syndrome.” These patients may or may not have a concomitant folliculitis.
- There is no geographic distribution of *Pseudomonas* folliculitis. However, with hot tubs and natural hot springs popular among travelers and pyodermas (purulent skin diseases) being among the most frequently reported complaints in returning travelers, probing for such activities may be advisable in patients with similar symptoms.
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Acute Occlusion of the Abdominal Aorta in a Patient with Severe Peripheral Vascular Disease and Untreated Atrial Fibrillation

**Urgent message:** Acute aortic obstruction should be suspected in all patients with back pain and a history of peripheral vascular disease and atrial fibrillation, as over 50% of these cases are misdiagnosed, resulting in high mortality rates in affected patients.

KIRSTOPHER PALMER, DO and JM ALDERSON, DO

**Introduction**

Aortic occlusion is a rare but potentially fatal vascular phenomenon that must be considered in all patients with peripheral vascular disease (PVD) complaining of severe pain. Here, we present a case of acute infrarenal aortic occlusion in a 76-year-old female with severe PVD and chronic, untreated atrial fibrillation.

**Case Presentation**

A 76-year-old female presented with acute onset of chest, back, and bilateral lower extremity pain and right lower extremity weakness. Her physical examination was significant for severe, diffuse low back pain to palpation, mottling and coldness of the lower extremities bilaterally below the level of the knee, and absent dorsalis pedis and posterior tibial pulses. She demonstrated a limited range of motion in her back and right lower extremity. She had an extensive past medical history that suggested severe PVD and risk factors for embolic disease, including type II diabetes, quadruple cardiac bypass surgery, DVT, CVA, severe pulmonary HTN, and atrial fibrillation. She stopped taking her warfarin (Coumadin) several years ago secondary to finding blood in her urine at home. She denied any history of smoking.

**Urgent Care Evaluation**

Her serious clinical picture, combined with a blood pressure of 250/110, prompted rapid transfer by EMS. Given these objective findings and clinical presentation, differential diagnoses included aortic dissection, abdominal aortic aneurysm, stroke, hypertensive emergency, and aortic occlusion.

Her troponin was 0.84 in the ED. Chest x-ray findings were consistent with cardiomegaly and alveolar edema.
Her ECG and echocardiogram revealed evidence of right heart strain with a right ventricular systolic pressure RVSP of 81. Brain CT was negative.

She was started on a heparin drip with consideration of pulmonary embolism, given her history of atrial fibrillation. The providers were reluctant to perform a CT angiogram as the creatinine was elevated, indicating acute renal failure. Venous Doppler could not locate pulses in the lower extremities, and the pain continued to worsen. Ankle-brachial index was 0.20, indicating severe vascular compromise. Magnetic resonance angiography of the abdomen and pelvis, without contrast, followed, showing nearly complete occlusion of the infrarenal aorta.1.6 cm proximal to the bifurcation without evidence of emboli and severe focal stenosis of the right external iliac artery (Figures 1A and 1B). There were multiple large lumbar collaterals present.

She underwent emergent aortogram with balloon angioplasty and stenting of the infrarenal aorta. Final imaging showed rapid blood flow through the stented segment. The postprocedure physical examination revealed palpable dorsalis pedis pulses, and both lower extremities felt warm to the touch. Unfortunately, the patient had minimal improvement in her lower extremity pain following the procedure. She was started on aspirin and Plavix daily.

**Discussion**

Acute abdominal aortic occlusion is a vascular emergency affecting 9% of people >65 years of age in the United States.1 The two most common causes of abdominal aortic occlusion are cardiac embolism (65%) and local thrombosis (35%).2 Atrial fibrillation and atherosclerotic cardiac disease are the greatest risk factors for embolism, while hypertension, diabetes, and smoking are the greatest risk factors for thrombosis.2,3

This patient most likely had severe stenosis of the abdominal aorta and external iliac arteries for many years, which went undetected due to sufficient collateral circulation from the lumbar arteries.

Over half of cases of aortic occlusion are misdiagnosed due to the nonspecific nature of the presenting symptoms, which include severe pain and/or sensory deficits in the lower extremities, acute paraplegia, abdominal pain, back pain, chest pain, acute hypertension, and acute renal failure.3 The mortality rate is 31%-52% within the first 24 hours if left untreated. Even if treated promptly, limb amputation may still result.4

Duplex scanning of the abdominal aorta, iliac, and femoral arteries is a simple, quick, and inexpensive test with a 91% sensitivity and 93% specificity for detecting abdominal aortic occlusion in severe occlusive disease and should be considered in patients with PVD presenting with concerning symptoms.4

Take home points for the urgent care clinician include:

- Atrial fibrillation, hypertension, and smoking increase the risk of acute aortic occlusion.
- Etiologies may be embolic or thrombotic.
- Acute occlusion is a surgical emergency requiring rapid identification in the urgent care center and rapid transfer to the hospital.

**References**

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Validating a Quantitative EEG-Based Brain Function Index

Key point: A novel EEG-based point of care, handheld, and non-invasive head injury assessment device, utilizing an index based on EEG measures reflective of concussion, was demonstrated to provide a quantitative index of brain function impairment in mild traumatic brain injury (mTBI).


There is currently no gold standard for the diagnosis of concussion. Clinical symptom checklists and neurocognitive tests are commonly used, but disadvantages include lack of clinical validation, poor test-test reliability, and frequent underreporting or exaggeration of symptoms. Previous studies have demonstrated a change in the frequency spectra, power relationships, and coherence between brain regions of the EEG in the presence of concussion. This observational, prospective, multisite validation trial was published in Academic Emergency Medicine and included 720 adult patients (age 18-85) admitted to the ED within 3 days of sustaining a closed head injury. Ninety-seven percent of trial participants had a Glasgow Coma Scale score of 15. Using a handheld BrainScope One device (FDA cleared as the Ahead 300) and disposable headset at the point of care, 5-10 minutes of electroencephalogram (EEG) from frontal and frontotemporal regions was acquired. The paper describes the development and validation of a quantitative EEG-based brain function index (BFI), which is derived from EEG features associated with functional brain impairment reflective of current consensus on the physiology of concussive injury. Significant differences in BFI were demonstrated among normal, mTBI/concussed, and CT+ patients (p<0.0001). A multinomial logistic regression analysis and regression slopes of the odds ratios support the BFI as a quantitative marker of brain function impairment, which scaled with the severity of functional impairment in mTBI patients. The results suggest that the BFI directly addresses the need for an objective, readily available assessment of brain function following head injury. It can aid urgent care providers in the rapid initial diagnosis of functional injuries and has the potential to provide a quantitative marker for the progression or resolution of MTBI/concussion.

Decreasing Frequency of Asthma Exacerbations in Adults

Key point: Adults with persistent symptomatic asthma experience fewer asthma exacerbations and improved quality of life when treated with oral azithromycin for 48 weeks, suggesting it could be a useful add-on therapy in persistent asthma.

Citation: Gibson PG, Yang IA, Upham JW, et al. Effect of azithromycin on asthma exacerbations and quality of life in adults with persistent uncontrolled asthma (AMAZES): a ran-

Previous studies have demonstrated that azithromycin (and other macrolides) have anti-inflammatory effects and are reported to be beneficial in both eosinophilic and non-eosinophilic subtypes of asthma. This randomized, double-blind, placebo-controlled parallel group trial studied whether or not oral azithromycin decreased the frequency of asthma exacerbations in adults with symptomatic asthma despite current use of inhaled corticosteroids and a long-acting bronchodilator. Four hundred twenty patients were randomly assigned to either azithromycin 500 mg three times per week or placebo. Azithromycin decreased moderate-to-severe asthma exacerbations compared with placebo (1.86 per patient year), and the proportion of patients experiencing at least one asthma exacerbation was reduced by its use (44% azithromycin vs 61% placebo). Azithromycin treatment was also shown to significantly increase asthma-related quality of life (adjusted mean difference 0.36; p=0.001).

Helping Prevent Return ED Trips for Children with Asthma

Key point: Mite-impermeable bedcovers are effective at reducing the number of mite-sensitized children requiring hospital treatment for asthma exacerbations, but not the number requiring oral prednisolone.


Studies have revealed that allergen exposure in sensitized individuals with asthma interacts with viruses to increase the risk of asthma exacerbations. This randomized, double-blind, placebo-controlled study included 284 pediatric patients with mite-sensitized asthma. The subjects were identified after presenting to 14 EDs in England with acute asthma exacerbation. Subjects received either mite-impermeable or placebo bedcovers at discharge from this initial study visit and were followed over a 12-month intervention period. At 12 months, significantly
fewer children who received the mite-impermeable bedcovers vs the placebo group required a repeat ED visit for an asthma exacerbation (that required IV corticosteroid treatment) as compared with the placebo group (29% vs 42%). This constitutes a 45% decrease. The study also measured the use of the mite-impermeable bedcover’s effect on the rate of use of oral corticosteroids for ≥3 days or longer in the intervention period. They found no difference between placebo and the intervention on the rate of oral steroid use. These results suggest that mite-impermeable bedcovers are effective in reducing ED visits for acute asthma exacerbations requiring IV corticosteroids. Urgent care providers should consider the recommendation of mite-impermeable bedcovers to pediatric patients with mite-sensitive asthma.

Comparing Collection Methods when Testing for Vaginitis
Key point: A molecular-based test using vaginal swabs collected by clinicians or patients can accurately diagnose most common bacterial, fungal, and protozoan causes of vaginitis.

This cross-sectional study was performed in 2015 with 1,740 women who complained of symptoms of vaginitis. Swabs were self-obtained (then sheathed and handed to the clinician) or clinician-obtained in order to compare differences between collection methods. All samples were evaluated with the molecular test and six different reference tests. The sensitivity and prevalence rates were very similar between the two collection methods. Bacterial vaginosis was diagnosed via the reference methods in 56.5%, vaginal candidiasis in 32.8%, and trichomonas in 8% of patients. The investigational test sensitivity was 9.5% and specificity was 85.8% for bacterial vaginosis; for candida, sensitivity was 90.9% and specificity 94.1%; and in the trichomonas group sensitivity was 93.1% and specificity 99.3%. These results suggest that this molecular-based test using vaginal swabs collected by the patient or clinician can diagnose most bacterial, fungal, and protozoan causes of vaginitis.

Does Adding Prednisone to Levocetirizine Help in Patients with Urticaria?
Key point: The addition of a prednisone burst did not improve the symptomatic or clinical response of acute urticaria to levocetirizine.

This double-blind randomized trial compared the use of levocetirizine (5 mg orally for 5 days) alone vs levocetirizine plus prednisone (40 mg orally for 4 days) in 100 adults who presented to an ED with acute urticarial without angioedema. Results at 2-day follow-up revealed that 62% of patients in the prednisone + levocetirizine treated group had an itch score of 0 while 76% of those who took levocetirizine alone had an itch score of 0. Also, 30% of the prednisone + levocetirizine-treated group reported relapses of urticaria while 24% of the levocetirizine group alone reported relapses. These differences were not clinically significant, and this study does not support the use of a prednisone burst in addition to levocetirizine in the treatment of adult patients with urticaria without angioedema.

Cotton-Tip Applicators Injuries in Children
Key point: Cotton tip applicator injuries continue to be prevalent in children, especially when the children themselves are the ones handling the CTA; this suggests that further injury prevention strategies are warranted.

Cotton-tip applicators (CTAs) were invented in 1923, and their use for ear hygiene has since been associated with cerumen impaction, tympanic membrane perforation (TMP), foreign body, and otitis externa. The researchers in this study utilized the National Electronic Injury Surveillance System (NEISS) to retrospectively determine the rates of CTA-associated injuries in children from 1990 to 2010. The study revealed that children <8 years old sustained the highest rates of injury (more than two thirds of patients). Ear cleaning was the most frequently documented reason for injury, with 76.9% of those patients reporting that they themselves were handling the CTA when the injury occurred. The most common presenting complaints in the ED were foreign body sensation (39.2%) and bleeding (34.8%). The most common diagnoses were the presence of a foreign body (29.7%) and tympanic membrane rupture (25.3%). Urgent care providers should continue to dispel the notion that ears need to be manually cleared in the home setting and should suggest gentle ear irrigation, cerumenolytics, or consultation with an otolaryngologist when indicated.

Patients Still Receiving Opioids for Migraine
Key point: Despite increasing evidence against the use of opioids for migraines, over one third of patients in this multicenter ED retrospective study received them.
Citation: Young N, Silverman D, Bradford H, Finkelstein J. Multicenter prevalence of opioid medication use as an abortive therapy in the emergency department treatment of...

Previous head-to-head studies have shown that ketorolac, antiemetics, and dihydroergotamine are all superior to opioids for the treatment of acute migraine headaches. In fact, the American Academy of Neurology has determined that abortive use of opioids in migraine treatment is one of the top five correctable actions to be addressed in their specialty. This retrospective study involved 1,222 ED visits for migraine in three types of EDs—an academic medical center, a nonacademic urban ED, and a community ED. Opioids were ordered in 35.8% of the visits, including in 12.3% of academic medical center visits, 40.9% of urban ED visits, and 68.6% of community EDs. The patients who received opioids had a higher rate of repeat visits than those who did not. Also of note, the academic center and the urban ED both found a 30% decrease in length of stay in visits where opioids were not given. Opioid visits were also associated with a higher rate of use of rescue medicines. Urgent care providers should consider alternative therapies for the treatment of acute migraine headaches.

**Does Delaying Appendectomy for 24 Hours Increase Complications?**

*Key point: Delay of appendectomy within 24 hours of presentation was not associated with increased risk of complicated appendicitis or adverse outcomes, suggesting that appendectomy can be safely performed as an urgent (rather than an emergent) procedure.*

Citation: Serres SK, Cameron DB, Glass CC, Graham DA, et al. Time to appendectomy and risk of complicated appendicitis and adverse outcomes in children. *JAMA Pediatr.* [Epub ahead of print June 19, 2017]

This retrospective cohort study utilized the Pediatric National Surgery Quality Improvement Program appendectomy database of 2,429 children <18 years of age who underwent appendectomy within 24 hours of presentation at 23 children’s hospitals over a 2-year period, from 2013-2014. The main exposure was time to appendectomy (TTA), which was further categorized as early and late TTA as compared with their hospital’s median TTA. The primary outcome was complicated appendicitis documented at operation. Results revealed a median TTA of 7.4 hours. Roughly one quarter (23.6%) of patients were diagnosed with complicated appendicitis. Increasing TTA was not associated with complicated appendicitis, and only one of 23 hospitals had an increased rate of complication for late TTA vs early TTA. Increase in TTA was associated with a slight increase in length of stay, but was not associated with an increase in postoperative complications.
Understanding the Ins and Outs of Triple Net Leases

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

**Urgent message:** As urgent care expands into traditional retail space, it’s important to understand the obligations of leases that require tenants to act as property “owners” responsible for all taxes, utilities, and maintenance of the real estate.

While the defining characteristic of urgent care facilities across the country is the offer of convenient walk-in (no appointment) care with extended hours of operation, research shows that location is the primary driver of urgent care volume. This retail delivery channel for medical services sees the best-performing urgent care centers located in high-visibility, high-traffic areas with favorable demographics.

Medical service providers are continuing to move beyond the traditional notions of hospital facilities and are moving to locate their businesses closer to their patient base. One way this is being made easier is through innovative lease agreements. This article will discuss triple net leases for urgent care owners, developers, and operators and provide an explanation of the benefits, features, and obligations of this type of agreement.

**Background**

A triple net lease—also be referred to as a net-net-net (NNN) lease—is a lease agreement that designates the lessee or tenant to be solely responsible for all the costs relating to the asset being leased. This is in addition to the rent applied pursuant to the lease. Typically, the triple net lease requires the lessee to pay the net amount for three types of costs:

1. The net real estate taxes on the leased asset
2. The net building insurance
3. The net expenses for common area maintenance

Net, net, net. The triple net lease is considered a turnkey investment, given that the landlord has no responsibility for paying any operating expenses.

For instance, if a property owner leases a building to an urgent care center using a triple net lease, the urgent care is responsible for paying the building’s property taxes, the building insurance, and the cost of maintenance and repairs for the building during the lease term. In light of the fact that the urgent care center is responsible for these costs—which would be covered by the property owner under most other leases—rent on the space in the triple net lease is usually less than rent charged in a standard retail property lease.

The *capitalization rate*, the calculation of the lease amount, is determined by the tenant’s creditworthiness.

The advantages of triple net lease investments include a predictable revenue stream due to the long-term leases and pass-throughs, as well as relatively issue-free investment because of the few obligations of the property owner.

**Urgent Care Triple Net Leases**

The most valuable or lucrative real estate for urgent care is leased under a triple net lease agreement. Net lease investors are showing that they are willing to pay a premium for coveted medical office space located in those high-visibility, high-traffic areas which will provide the best return on investment.

Still in the initial stage of growth, many investors—particularly those proponents of the triple net lease—believe there’s a significant need for urgent care clinics in strong, primary locations.

New construction is one aspect of urgent care facility investment that appeals to investors. Couple with this is their preference for high-traffic retail locations that have the potential to be backfilled with other tenants in the future, and investors are finding a ready pool of buyers wanting to grab newly built facilities.

Medical service providers are attracted to the net lease as a vehicle to finance growth. Urgent care properties have the highest level of buyer demand—a reason why this sector is trading
for the lowest cap rates at 6.3%. Compare that rate with 6.6% for dialysis clinics and 6.68% for general medical buildings.

The Three Ns
Let’s look at the three Ns in greater detail:

Building Maintenance. If the building is in solid condition, the maintenance should be minimal, allowing the urgent care owner to reap the benefits of lower rent; however, if the property is in disrepair and requires significant renovations or repairs, then the landlord is advantaged because he isn’t obligated to address that maintenance. The urgent care owner incurs those expenses.

Insurance. Tenants are required to carry insurance on the property and may have to pay deductibles on the policy along with any uninsured damage. Commercial General Liability (CGL) insurance, also known as “third-party” insurance, protects the urgent care owner and the landlord from claims by others. Property and casualty insurance protects the building—the roof, interior and exterior walls, stairwells, and parking structures. The urgent care owner’s own business property, such as trade fixtures, inventory, and other personal property, are not covered by this policy. Trade fixtures can include expensive equipment like x-ray machines, examination tables, and other specialized medical tools. Another policy would be needed to cover these items.

Property Taxes. One distinct disadvantage to the urgent care owner as a tenant is his or her responsibility for property taxes. It’s not uncommon for a community to raise the appraisal on commercial property every year. Another way of upping the urgent care owner tenant’s tax bill is when the municipality raises the tax rate per $1,000 of value. To get any relief, the tenant must rely on the landlord to contest a higher appraisal. Since he isn’t paying the taxes, the landlord may not care to invest in a private appraisal to contest the new appraisal. But this can create a backlash if the urgent care owner moves out at the end of the lease. As a result, the landlord will be stuck paying the higher tax bill until he secures a new tenant, or he’ll have a vacant property on his hands.

In some cases, the landlord may agree to pay all real property taxes for the first year of the lease (known as the “base year”); after that, the urgent care owner would be responsible for the taxes. A savvy negotiating landlord may also try to set the base year sometime in the past—when the taxes were lower than they are currently—so that the tenant must immediately begin paying the increase.

Conclusion
Remember, even if a triple net lease is a true absolute net lease, it may not cover all expenses associated with a property. Although a true absolute NNN lease with a strong tenant can be termed a turnkey commercial property from the landlord’s or investor’s perspective, even an absolute net lease may have some expenses that won’t be covered by the urgent care facility tenant. For example, the cost of security services, landscaping, and advertising may or may not be included.

Medical net leases account for a small portion of the overall real estate market today; however, it’s clearly a growing sector. Experts say that the future is quite bright for medical triple net leases in the next 10 to 15 years.

Utilities
While not “officially” one of the “nets,” utilities within the rented space are the tenant’s responsibility under a triple net lease, typically. Utilities include water, sewage, natural gas, and electricity. Related are cleaning and maintenance expenses. A tenant’s utilization may be metered individually by the utility companies, in which the tenant pays the utilities directly, or the landlord may sub-meter the tenant’s space, in which case the tenant reimburses its share of the landlord’s utility bills. It is rare that utilities would be included in a tenant’s lease, the exception typically being older buildings in which installing separate utility “lines” or sub-metering isn’t practical. An example might include renting a space in a building that has one HVAC system covering multiple tenants, in which case gas or electric could be considered a “common area expense.”
Maximize Revenue for Nebulizer Treatments

David E. Stern, MD, CPC

Q: What can we bill for when we give a patient a nebulizer treatment for an acute airway obstruction during an exacerbation of asthma, or wheezing due to an upper respiratory ailment?

A: You can bill for the service and the medication. However, depending on the payer rules, the medication might be bundled into the service.

Time is a factor when billing the service. If the treatment is less than 1 hour, you would bill Current Procedural Terminology (CPT) code 94640, “Pressurized or non-pressurized inhalation treatment for acute airway obstruction for therapeutic purposes and/or for diagnostic purposes such as sputum induction with an aerosol generator, nebulizer, metered dose inhaler or intermittent positive pressure breathing (IPPB) device.”

Effective January 1, 2017 the Centers for Medicare and Medicaid (CMS) has changed its policy regarding multiple inhalation treatments (CMS National Correct Coding Initiative [NCCI] Edits Policy https://www.cms.gov/Medicare/Coding/NationalCorrectCodingInitiative/index.html, Chapter 11, page 25). The policy states that an episode of care begins when a patient arrives at a facility for treatment and terminates when the patient leaves the facility. CPT code 94640 should be reported only once during an episode of care, regardless of the number of separate inhalation treatments that are administered. This means that if the patient requires two separate nebulizer treatments during the same visit, you would still only bill CPT code 94640 once.

However, if a patient receives “back-to-back” nebulizer treatments exceeding 1 hour, (which rarely occurs in urgent care), bill CPT code 94644, “Continuous inhalation treatment with aerosol medication for acute airway obstruction; first hour,” and CPT code 94645, “Continuous inhalation treatment with aerosol medication for acute airway obstruction; each additional hour,” as appropriate, instead of CPT code 94640.

If the patient receives a nebulizer treatment of less than 1 hour (CPT code 94640) during an episode of care and subsequently returns on the same date of service to the urgent care to receive another nebulizer treatment of less than 1 hour, then you would bill CPT code 94640 and append modifier -76, “Repeat procedure or service by same physician or other qualified health care professional” for the second treatment, since the return visit would be considered a separate episode of care.

CPT code 94640 cannot be billed on the same date of service as CPT codes 94644 and 94655.

The medications administered in the urgent care setting are most commonly a form of albuterol. You will find the correct codes to use in the “Healthcare Common Procedure Coding System Level II” (HCPCS) coding manual. Below is a list of Federal Drug Administration (FDA)-approved medications containing albuterol:

- J7611, “Albuterol, inhalation solution, FDA-approved final product, non-compounded, administered through DME, concentrated form, 1 mg”
- J7612, “Levalbuterol, inhalation solution, FDA-approved final product, non-compounded, administered through DME, concentrated form, 0.5 mg”
- J7613, “Albuterol, inhalation solution, FDA-approved final product, non-compounded, administered through DME, unit dose, 1 mg”
- J7614, “Levalbuterol, inhalation solution, FDA-approved final product, non-compounded, administered through DME, unit dose, 0.5 mg”
- J7620, “Albuterol, up to 2.5 mg and ipratropium bromide, up to 0.5 mg, FDA-approved final product, non-compounded, administered through DME”

There are several respiratory or pulmonary conditions that may qualify for inhalation treatment coding, such as:
Let’s look at a visit scenario: A 20-year-old patient presents with a cough that has lasted the past 5 days. A review of her past medical record shows she was seen in your clinic about a year ago for similar symptoms. You note that her oxygen saturation is at 96% on room air, and you hear a slight wheezing in her lungs. After examination, you order the administration of 0.63 mg/3 mL of levalbuterol tartrate (Xopenex). The treatment takes 10 minutes to complete. The patient is still in distress, so the treatment is repeated and completed within 15 minutes. A new reading of her oxygen saturation is remarkably improved at 99% on room air. The patient is feeling much better after the treatment. The final diagnosis is determined to be acute bronchitis, and prescriptions are written for azithromycin and an albuterol sulfate inhaler. The claim will show the following diagnosis and procedure codes:

- J20.9, "Acute bronchitis, unspecified"
- 99214 with modifier -25 (example assumes a detailed history, detailed exam, and moderate medical decision-making)
- 94761 (multiple oxygen saturation readings)
- 94640 (nebulizer treatment)
- J7614 X 4 units (Xopenex, 0.5 mg per unit)

Note that CPT code 94640 is billed only once because the two treatments were performed during the same episode of care. However, if later that same day the patient returned to the clinic due to continued breathing problems and the same nebulizer treatment was provided using the same medication and dosage as before, you would bill CPT code 94640 with modifier -76 for the treatment, along with HCPCS code J7614 for the medication, as this would be a separate “episode of care” as defined by CMS.
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THE ROLE OF QUALITY LAB PRACTICES IN DELIVERING EFFECTIVE PATIENT CARE

A Quality Assessment Plan is Key to Obtaining Consistently Valid Results

By Tammy Harper, Technical Advisor, COLA

Rachel, a 19-year old woman who had been successfully controlling her Epilepsy with anticonvulsant medications, was prescribed another drug to treat a dermatologic condition. This new drug could potentially affect her liver. When hepatic function tests were ordered to monitor this side effect, the results were elevated, so her doctor reduced the additional therapy. The doctor also wanted to verify that the new drug was not affecting the levels of her anticonvulsant medications. The results for both medications came back as “0.0 μg/ml,” despite the fact the she regularly took these medications. (The normal results should be in the range of 2.0 – 25.0 μg/ml and 5.0 – 63.0 μg/ml, respectively.) The lab noted the difference from her previous results two weeks earlier, and repeated the testing on the sample. When they received the same result, her physician was notified, and they ordered the tests redrawn the same day. This sample showed both drug levels within normal therapeutic range.

This triggered the lab’s Quality Assessment Program to investigate why the first sample gave errant results. The lab discovered that another patient’s sample was labeled with Rachel’s name. The lab revised their specimen labeling procedure to hopefully avoid future such incidents, and will monitor mislabeled specimens on a monthly basis.

Given the importance of quality lab practices in the delivery of safe, effective health care, it is critically important for laboratorians to carefully follow standards and procedures that can ensure reliable and accurate samples, as the above example illustrates. With laboratory testing impacting more than 70 percent of all medical diagnoses, lab professionals function as key members of patient care teams, offering invaluable expertise to the diagnosis and treatment process. Behind every lab test is a patient like Rachel, whose healthcare outcome relies on quality lab practices in the delivery of safe, effective health care.

A Quality Assessment (QA) plan is an essential tool for creating a culture of quality that enables laboratories to provide consistently valid results. The QA process is designed to continuously monitor labs’ performance and services to detect and identify potential problems. When a problem is discovered, the process helps labs investigate to determine the root cause, implement corrective actions and monitor to ensure the problem does not reoccur. Failure to carefully adhere to such quality standards can result in errors that have the potential to leave lasting impacts.

The COLA Quality Assessment Program
Following are COLA’s recommended steps for developing a QA plan, which monitors all phases of lab testing:
1. State the purpose of your plan, and list your goals
2. Describe what you will review (i.e., the path of workflow and all of your quality systems), the standards that you expect, and how you will collect data to assess your laboratory’s activities
3. Describe how you will implement the plan, and schedule and perform reviews
4. Describe how you will respond to identified problems, methods for corrective action, and how follow-up reviews will be scheduled and performed
5. Develop forms for documenting observed problems, collecting data, performing reviews, and documenting all QA activities
6. Describe how you will share findings with your Laboratory Director, staff, and other appropriate parties

COLA offers a complimentary Quality Assessment LabGuide to assist your lab in developing and implementing an effective Quality Assessment plan. With this guide, you can learn how to:
- Define roles and responsibilities
- Identify problems that might negatively affect patient care
- Meet standards of performance, and enable lab managers to immediately address noted deficiencies
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To receive this free resource, visit www.cola.org/QA-labguide. For more information, call 800-981-9883 or visit COLA’s web site at www.cola.org.

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Gathering Metrics on Pediatric Urgent Care: Convenient Hours

In this issue of JUCM, we inaugurate a new focus on treating children in the urgent care center. This will manifest in the form of semiregular articles by clinicians who’ve made the commitment to focus on pediatric urgent care. The first, Approach to the Child with Chest Pain, appears on page 11.

We are not alone in recognizing that urgent care is ideally suited to the treatment of children whose presenting symptoms don’t warrant a trip to the emergency room, but whose caregivers recognize they have to be seen today (which, often, means a trip to the urgent care center). Take the Society for Pediatric Urgent Care. A study of its member centers is underway to assemble site, personnel, and operational metrics for pediatric urgent care clinics. They’ve generously shared some of their preliminary findings with us. Here, an overview of the hours of operation at participating pediatric urgent care centers. As you’ll see, they offer a clue as to key attributes pediatric urgent care centers share with traditional urgent care centers: access to quality care that goes beyond the hours of traditional pediatric practices.
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