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#### **LETTER FROM THE EDITOR-IN-CHIEF**

# Medical Histories in the Digital Age



ingle?" "Married"? Or, "It's complicated?" In an era of revealing your relationship status to millions of strangers, we have grown accustomed to people sharing "TMI" about themselves. How might this affect the doctor-patient rela-

tionship of a new generation? Are younger patients more likely to share important information with their physicians, where older generations are less forthcoming? Is there a silver lining to this comfort with exposing one's personal information for all to see? Might we get more valuable information in our medical and social histories?

Well, the simple answer is, "We don't know yet!" But that would make for a short and rather boring opinion piece, so let's speculate a little. Let's consider a few digital realities and then explore how they might impact the patient encounter.

"Digital natives," as first described by Marc Pernsky in 2001, generally include those born after 1980. The rest of us are tabbed "digital immigrants." We use much of the same technology, but we use it in different ways. To a digital immigrant, according to Pernsky, many of these devices are consider "tools." We often use them to reach someone or set up a face-to-face meeting. To a digital native, however, digital communication is considered to be just as real as face-to-face communication. It is considered an extension of their very being, not just a tool.

In addition, digital natives are far more comfortable sharing personal information than their immigrant counterparts. Facebook is filed with intimate details and emotional images that most immigrants would be hesitant to share even with close confidants.

While one could speculate that this social openness might translate into more revealing medical and/or social histories, a few caveats apply:

Sharing personal information in a face-to-face communication is different than online. Even when revealing your identity online, there remains a certain anonymity with exposing personal information digitally. There is a distance between "viewer" and "poster" that encourages more emotionally charged or personally revealing in-

formation. Who of us hasn't at least sent one email expressing ourselves in ways we would never dream of in person?

 Much of what is shared online is intended to be peer-topeer. While we can expect natives to be more open with other natives, it is quite a leap to expect this openness to be cross-generational.

Medical histories, historically, depend on a chronological set of events with a linear relationship. Digital natives don't think this way. They are comfortable in a world of multiple, simultaneous realities, jumping between and analyzing several things at once. This has been coined "continuous partial attention," and its impact on communication in the patient encounter is uncertain. While one could argue that most patients have a difficult time presenting a "coherent" history, most of us digital immigrants are certainly more wired to do so.

Might we have to change the paradigm of the medical history to more accurately collect information from this generation? Perhaps we should look more closely at electronic media as a means of reaching and communicating with this generation of patients. With the explosion of electronic medical records in the urgent care setting, perhaps we can develop electronic history tools designed to elicit medical information more accurately and effectively from a wired population.

The medical community should work with sociologists and psychologists to better understand the unique communication and relational patterns of digital natives. Additional research may reveal innovative strategies for eliciting important information and more revealing histories.

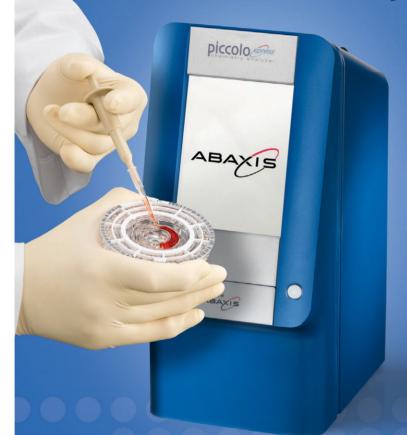
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ALB, ALP, ALT, AMY, AST, BUN, Ca, CRE, GGT, GLU, TBIL, TP, UA



# April 2011

VOLUME 5, NUMBER 7



#### CLINICAL

# 9 Giant Cell Arteritis: A Clinical Review for **Urgent Care Providers**

Whether you know it as temporal arteritis, the "great masquerader," or the abbreviation GCA, giant cell arteritis is an under-recognized, easily missed vasculitis of older adults. Are you familiar with its signs and symptoms?

By Ryan C. Jacobsen, MD, EMT-P

#### PRACTICE MANAGEMENT

#### **29** Competitive Analysis to Stand Above the Crowd

You might offer the best care in town, but if your competitor's care is "good enough" and they offer services that you don't, you may be losing business to them. The first step is to find out what "the other guy" is up to.

By Alan A. Ayers, MBA, MAcc



#### IN THE NEXT ISSUE OF JUCM

Technically, a "burn" is defined as a traumatic, thermal injury to the skin and deeper structures. Hence, it can result not only from heat, but also cold, chemicals, electricity, or radiation. And the majority of them are managed in an outpatient setting.

#### WEB EXCLUSIVE

"How are you feeling?" may seem like a straightforward question in the context of physicianpatient encounters. Sometimes, though, understanding a patient's feelings can be the difference between optimal and sub-optimal outcomes. Available exclusively at www.jucm.com.

By Bob Stuart, MD and Bob Bichler, RN

From the UCAOA Executive Director

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o paraphrase Shakespeare, albeit less eloquently, GCA by any other name would be as potentially damaging. And, in fact, giant cell arteritis (GCA) is also known as temporal arteritis or more colloquially as the "great masquerader" due to its apparent—but not actual—similarities with other diagnoses.

Call it what you will, that very characteristic is what makes it difficult to identify. With the prospect of consequences like vision loss looming for patients who are not treated in time, it is incumbent upon the urgent care clinician to understand and be vigilant for its signs and symptoms based on presenting complaint and patient characteristics.

Giant Cell Arteritis: A Clinical Review for Urgent Care Providers (page 9), by **Ryan C. Jacobsen, MD, EMT-P** seeks to prepare you by reviewing its epidemiology, differential diagnoses, relevant diagnostic tools, and management options.



Dr. Jacobsen is assistant professor of emergency medicine at the University of Missouri-Kansas City School of Medicine, as well as a practitioner in the Department of Emergency Medicine at Truman Medical Center and the Division of Emergency Medical Services at Children's Mercy Hospital in Kansas City, MO. He is also the associate EMS medical director for Kansas City, MO EMS.

Along the same concept of "what you don't know *can* hurt you," are you aware of what your competitors are doing? If not, you'd better find out because they're trying to make sure potential patients find their services superior to yours.

In Competitive Analysis to Stand Above the Crowd (page 29), **Alan A. Ayers, MBA, MAcc** offers some keen insights into methods for gathering intelligence on the urgent care center down the block.

Mr. Ayers is content advisor to the Urgent Care Association of America and vice president of Strategy & Execution with Dallasbased Concentra Urgent Care.



And, in an article you can find only at www.jucm.com, Bob Stuart, MD and Bob Bichler, RN offer perspectives on understanding the link between a patient's emotions and optimal patient care.



Dr. Stuart is a medical director with responsibility for multiple urgent care centers in the Aurora Medical Group system in Milwaukee, WI. Mr. Bichler is also with Aurora; in addition to his nursing training,

he is a graduate of the Froedtert Hospital Pastoral Care Volunteer Program, which he credits with introducing him to "listening to emotions."

#### Also in this issue:

**Nahum Kovalski, BSc, MDCM** identifies new abstracts relevant to the urgent care clinicians, including several concerning care of younger patients (e.g., cephalexin versus clindamycin for uncomplicated skin infections in children), among other topics.

**John Shufeldt, MD, JD, MBA, FACEP** describes the professional and legal dangers of posting too much information (the



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possibly wrong kind, at any rate) about yourself online.

**Frank H. Leone, MBA, MPH** advocates "taking your show on the road" in order to reach your prime occupational medicine audience.

**David Stern, MD, CPC** advises on optimal coding for Medicare or Medicaid, for SVT, and use of codes S9088 and 99211.

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Before submitting, we recommend reading "Instructions for Authors," available at www.jucm.com.

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# FROM THE EXECUTIVE DIRECTOR

# Moments of Clarity

LOU ELLEN HORWITZ, MA

here's an ongoing uncertainty about how many of the visits in our nation's emergency rooms are actually emergencies. That uncertainty arises from several different aspects of the problem:

1. How do we, or patients, define an "emergency?" Everyone agrees, I think, that given the choice, we'd prefer that patients err on the side of caution. There is a long-established "standard" in measuring emergency room visits: that it should not be measured by what the discharging diagnosis was, but the "prudent layperson" standard. If a prudent layperson would think it could be an emergency, let's start the pursuit of care in the emergency room.

Given this long-held standard, the definition of an emergency could be that it is a condition that a prudent patient thinks is an emergency.

2. How then, do we measure that? Is it a matter of asking patients if they believe they are having an emergency?

Currently at the federal level (Health and Human Services), it is measured by the "time needed to be seen," though it is somewhat unclear as to what the measures of those measures are (how is it decided how quickly someone needs to be seen?). In addition, the ranges that are measured are quite broad after a certain point; currently, the CDC measures are "immediately," "under 15 minutes," "15-60 minutes," "1-2 hours," then "2-24 hours." It is unclear what visits fall into what triage measure, and who decides that. It is also unclear what the consequences are to a patient in a certain category if they are not seen within that time frame.

I acknowledge that this is a very challenging part of the problem. The prudent layperson might also ask, if someone can wait one to two hours to be seen, is that really an emergency? If I'm picking an ED by its posted wait time, should I really be there? The unfortunate answer is that it's

> **Lou Ellen Horwitz** is executive director of the Urgent Care Association of America. She may be contacted at Ihorwitz@ucaoa.org.

probably tough to for a layperson to know, and we are back to erring on the side of caution.

3. Lastly, there is an unfair struggle over patients going on here that no one likes to talk about. Our healthcare delivery system is such that having a patient visit is a good thing, and losing one to another provider is a bad thing (unless it is a non-paying patient). There are very large dollars at stake here, or no one would really care much about this issue. The burden this places on our emergency rooms is quite unfair; the patients that won't later clog up the ED waiting for a bed, but that can be treated and sent home and/or back into the primary care system, are the very patients that the majority of us outside the ED are trying to take away.

I, certainly, am on the side of urgent care and cost savings and wanting to get patients into the best location for the illness or injury that they seem to have, at the right time; I think everyone is—in the abstract. However, we don't live in the abstract. I also understand why measuring where those patients should be is a large challenge, and why there are enormous implications of doing so that could cripple our emergency departments in the current system. No one wants that.

In late March, UCAOA's president, Dr. Don Dillahunty and I sent a letter to the directors in charge of the national ED study we all watch so carefully at the Centers for Disease Control, asking them to reconsider their models of measurement to help us all gain some clarity. Until we better understand what these visits look like, I believe it will be hard to design a system that will help our ED colleagues do what they are all so well-trained and wellequipped to do, which is handle emergencies, and provide both their facilities and their professionals with adequate compensation for the immeasurable benefit they provide.

It's a tough problem that affects us all, but that doesn't mean we don't need to look directly at it and see where the truth lies and what really needs to be done about it. Odds are, if we don't, it's only going to get worse.

(Notes: UCAOA members can read our letter in the UConnect Resource Library. The CDC study referred to can be found at http://www.cdc.gov/nchs/data/nhsr/nhsro26.pdf).





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# Clinical

# Giant Cell Arteritis:

# A Clinical Review for Urgent Care Providers

Urgent message: Giant cell arteritis is an under-recognized and easily missed vasculitis of older adults, a challenging but "can't miss" diagnosis. The urgent care clinician must be able to recognize this entity sometimes referred to as the "great masquerader" and be comfortable initiating timely emergency treatment.

Ryan C. Jacobsen MD, EMT-P

#### **Overview/Introduction**

∩iant cell arteritis (GCA), more commonly known as temporal arteritis, is an under-recognized vasculitis of older adults that can have potentially devastating consequences, most notably permanent and profound vision loss, if missed.

In addition to remaining vigilant for symptoms of this entity sometimes referred to as the "great masquerader" and being comfortable initiating timely emergency treatment, the clinician must appreciate the importance of timely involvement of the appropri-

ate subspecialty consultants in the care of these patients. This article will provide the urgent care specialist with

an overview of the disease, various clinical presentations, laboratory tests that assist in making the diagnosis of gi-



ant cell arteritis, and guidance on management.

#### **Epidemiology**

GCA is the most common. primary systemic vasculitis occurring in adults. Due to the lack of any pathognomonic clinical presentation and the large number of non-specific complaints that GCA patients can present with, the incidence and prevalence of the disease is almost certainly underestimated.<sup>2</sup> Prevalence on autopsy studies is reported at 1.2% of the population.<sup>2</sup>

Overall, global incidence has been placed at 15 to 25

per 100,000/year in individuals over 50 years of age.<sup>3</sup> However, the incidence varies dramatically based on age, geographic location, race and sex.

GCA is extremely rare in individuals under 50 years

of age.<sup>1,2,4</sup> The incidence rises from 2.3 per 100,000/year in individuals in their 60s to 44.7 per year in their 90s.<sup>5</sup> Peak incidence occurs between 75 and 80 years of age.<sup>2,6</sup>

It is more likely to occur in Caucasians, especially those of Scandinavian and Northern European descent. It is uncommon in African Americans, and rare in the Hispanic population.

Also, it is two to six times more likely to afflict females than males.<sup>2,5</sup>

Long-term outcome studies have shown no excess in mortality; however, delays in diagnosis and initiation of treatment contribute to the high morbidity associated with GCA.<sup>7</sup>

#### **Pathophysiology**

GCA is a systemic inflammatory vasculitis that mainly affects the proximal aorta and its branches.<sup>3,5,8</sup> This vasculitis predominantly targets the muscular walled, medium to large arteries of the head and neck.<sup>2,5,7</sup> However, there is evidence that this particular vasculitis, although much less frequently, can also affect other arteries such as: the mesenteric arteries, coronary arteries, and branches off the distal aorta including arteries of the lower extremities.<sup>5,9,10</sup>

Although not proven definitively, many triggers have been postulated for GCA, including:

- heavy smoking
- atherosclerosis
- cytomegalovirus (CMV)
- herpes
- parainfluenza
- parvovirus B19
- mycoplasma
- chlamydia.<sup>5,7</sup>

The exact immunological mechanisms and triggers that occur in GCA are not completely understood.<sup>2,5</sup> However, some believe that the systemic inflammatory response of GCA is mediated by the innate immune system (i.e., non-antigen mediated) and that damage is caused by a maladaptive antigen-specific immune response that directly attacks the arterial walls. <sup>10</sup>

Regardless of the triggers and immunological mechanisms that are involved, however, the ultimate result is arterial wall inflammation. This leads to occlusion of the arterial lumen, resulting in ischemia distal to the occlusion. Ischemia is the primary cause of the wide array of clinical signs and symptoms seen in GCA and is the culprit behind the most commonly encountered, serious consequence: vision loss. 2,5,8,10

Typically, the vision loss associated with GCA is a

consequence of ischemia of the optic nerve, most likely due to widespread inflammation and luminal occlusion of the posterior ciliary arteries that supply the optic nerve head. This is usually referred to as anterior ischemic optic neuropathy (AION), and is the most common ocular manifestation of GCA. <sup>9,11</sup>

GCA can also cause a host of other ischemic complications that can affect vision, including central retinal artery occlusion (CRAO), posterior ischemic optic neuropathy, choroidal ischemia, and branch retinal artery occlusion.<sup>2,8,9,12</sup>

Other ischemic manifestations can include: aortic arch syndrome (resulting in claudication of upper extremities), aortic dissection/aneurysm, transient ischemic attack/CVA, acute coronary syndromes (ACS), mesenteric ischemia, and ischemia/infarction of muscles of mastication, pharyngeal musculature, and tongue.<sup>2,5,8,13</sup>

Association between polymyalgia rheumatica (PMR) and GCA is strong; up to 40% of patients with GCA have PMR, as well,<sup>6,7,10</sup> but only about 15% of patients with PMR have GCA.

PMR is another systemic inflammatory disease that presents with myalgias of the neck, shoulders, and pelvic girdle. Typically, the symptoms of PMR are worse in the morning after waking, and are frequently accompanied by non-specific complaints such as fatigue, malaise, fever, weight loss, and anorexia.<sup>6,7</sup>

#### **Clinical Presentation**

It is important to understand that there are no pathognomonic clinical signs or presenting symptoms for GCA.<sup>2,6-8,10,13</sup> The clinician needs to be familiar with the more common presenting signs and symptoms. We must also realize that the diagnosis of GCA can be very challenging due to the sometimes vague, non-specific symptomatology. Therefore, clinicians must keep a very high index of suspicion for disease in the appropriate patient.

Headache is the most common complaint, occurring in roughly 90% of patients.<sup>2</sup> However, the headache does not have to be temporal in location. The headache of GCA can be parietal, occipital, generalized, acute, or subacute in nature.<sup>7,14</sup>

Ocular complaints are common, ranging in incidence from 14% to 70% of patients.<sup>3</sup> Visual loss is the most common ocular complaint reported, occurring in up to 98% of patients, followed by diplopia in 6% to 21% of patients.<sup>2</sup>

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#### DOSAGE AND ADMINISTRATION

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#### **DOSAGE FORMS AND STRENGTHS**

4 mL bottle filled with 3 mL sterile ophthalmic solution of moxifloxacin hydrochloride, 0.5% as base

#### CONTRAINDICATIONS

None.

#### WARNINGS AND PRECAUTIONS

- Topical ophthalmic use only.
- Hypersensitivity and anaphylaxis have been reported with systemic use of moxifloxacin.
- Prolonged use may result in overgrowth of nonsusceptible organisms, including fungi.
- Patients should not wear contact lenses if they have signs or symptoms of bacterial conjunctivitis.

#### ADVERSE REACTIONS

The most common adverse reactions reported in 1-2% of patients were eye irritation, pyrexia, and conjunctivitis.

To report SUSPECTED ADVERSE REACTIONS, contact Alcon Laboratories, Inc. or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

#### Reference:

1. MOXEZA™ Solution package insert.

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#### Table 1. Characteristics of GCA

- Most patients affected are ≥50 years of age
- · Strongly associated with polymyalgia rheumatica
- 2-6 times more common in females
- More prevalent in northern latitudes
- Predominantly affects Caucasians (northern European and Scandinavian descent)

plaint, however, should heighten suspicion of GCA in any patient over 50-years-old.

Such complaints include:

- transient visual loss
- ocular pain
- visual blurring
- amaurosis fugax.<sup>5</sup>

In one prospective study, vision loss was the only symptom in 21% of patients diagnosed with GCA.  $^{12}$  The importance of taking *all* visual complaints seriously in older patients, even if transient, cannot be overstated as these may be the only clues to the disease which, if missed, can result in permanent blindness.

Jaw claudication has been reported to be very specific and quadruples the likelihood of diagnosis but only occurs in 30% to 50% of patients with GCA, making it extremely insensitive.<sup>2,4,7</sup>

It is important to differentiate between jaw claudication and temporomandibular joint pain (TMJ). Jaw claudication begins after several minutes of chewing or talking, subsides with rest, and is located over the temporal region. TMJ pain is immediate with any jaw movement at all and is located primarily directly over the temporomandibular joint just in front of the ear.<sup>2</sup>

Scalp tenderness can be seen in approximately 50% of patients with GCA. The patient may note pain with hair washing, brushing, or even lying on a pillow. Some may describe this as having "painful hair."<sup>7</sup>

There are a multitude of non-specific complaints. About 65% of patients report an alteration in general well-being.<sup>2</sup> Other systemic complaints can include:<sup>2,4,5,7,14</sup>

- fever (generally low grade)
- anorexia
- weight loss
- malaise
- fatigue
- paresthesias
- joint pain
- dizziness
- hoarseness
- dysphagia

#### **Key Physical Exam Findings**

There are no findings on physical exam that are pathognomonic for GCA. However, there are several findings that increase the likelihood

of identifying GCA. The clinician should be able to recognize these key findings.

Temporal artery abnormalities of any kind on physical exam double the likelihood that a patient has GCA. This can include tenderness when directly palpating the artery, beading of the artery, an abnormally prominent artery, or absence of temporal artery pulses.14

The other classic physical exam clue that can be present in GCA is fundoscopic findings of AION. It is important to do a fundoscopic exam, when feasible, to look for the telltale signs of ischemic retinopathies.

The typical appearance of AION is a chalky white, pale, swollen optic nerve head and/or cotton wool hemorrhages. Other possible findings include afferent pupillary defects and visual acuity testing abnormalities.<sup>5,9,12,14</sup>

Palpation of the scalp is also an essential physical exam maneuver; pain secondary to scalp ischemia may be evident in up to 50% of patients with GCA.<sup>7</sup>

Outside of the above physical exam clues, there are no "typical" findings for patients presenting in the urgent care setting. Therefore, it is important for the clinician to not dismiss GCA as a potential diagnosis in the absence of any of the above findings.

#### **Differential Diagnosis**

Again, PMR is another systemic inflammatory condition that frequently coexists in patients with GCA. Any systemic inflammatory disease can mimic GCA; likewise, GCA can mimic any systemic inflammatory disease. Therefore, the differential consists of many conditions that have non-specific symptoms like fever, weight loss, fatigue, myalgias, and arthralgias (thus, the reason some refer to GCA as "the great masquerader").

Some differentials that also present with nonspecific complaints are:

- fibromyalgia
- rheumatoid arthritis
- migraine headache
- lupus
- viral infections
- hepatitis

#### Table 2. Keys to Diagnosis and Common Pitfalls

- Maintain high index of suspicion
- GCA should be considered in any patient ≥50-years-old with headache, visual changes, jaw claudication, or scalp/temporal pain
- Understand limitations of history and exam findings in GCA
  - Do not be falsely reassured if headache is not in the "classic" temporal region or visual symptoms were transient in nature. There is no pathognomonic history or physical exam finding that rules out the diagnosis
- Order appropriate lab work
- This includes a CBC (specifically looking for elevated platelet count), as well as ESR and CRP
- · Give first dose of corticosteroids when in doubt
  - It is clear that time to steroids impacts outcome on vision loss; when in doubt, give the first dose of steroids prior to directly admitting patient or sending to the ED. Early steroid therapy does not impact any potential future temporal artery biopsy results and thus will not delay or prevent diagnosis
- Involve consultants early
- It is important that appropriate consultation be made early once the diagnosis is entertained both for assistance with treatment recommendations as well as helping to coordinate with other subspecialists, such as rheumatologists, ophthalmologists, and neurologists

#### Table 3. American College of Rheumatology Diagnostic Criteria for GCA

Patients must have three of the five following criteria for diagnosis:

- Age of onset ≥50 years
- · New onset localized headache
- Temporal artery tenderness or decreased artery pulsation
- ESR >50 mm/hr
- Abnormal temporal artery biopsy

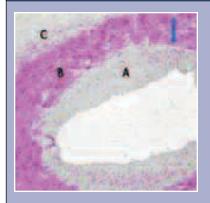
Adapted from Hunder GG, Bloch DA, Michel BA, et al. The American College of Rheumatology 1990 criteria for the classification of giant cell arteritis. Arthritis Rheum 1990;33:1122-1128.

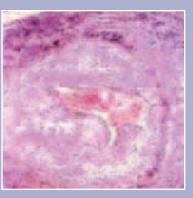
- endocarditis
- HIV
- malignancy
- sinusitis
- osteoarthritis
- polymyositis,
- other vasculitides.<sup>6,7</sup>

#### **Diagnosis**

It is important to understand that there is no single laboratory test or imaging study that is specific for GCA.<sup>5</sup> There are, however, certain tests that should be obtained in any patient over 50-years-old who you suspect of having GCA. These are a sedimentation rate (ESR), Creactive protein (CRP), and complete blood count  $(CBC).^{2,4-8}$ 

#### Figure 1. Temporal artery biopsy.





Left: Normal temporal artery biopsy showing a clear, distinctive architecture, the intima (A), muscular media (B), and adventitia (C), with a widely patient lumen (D). Notice the distinct internal elastic lamina (arrow). Right: Temporal artery biopsy in patient with GCA. Notice the disorganized architecture and loss of internal elastic lamina with an occluded lumen. (Photos courtesy of the University of Missouri-Kansas City/Truman Medical Center Department of Pathology.)

#### ESR

Historically, the ESR has been the gold standard laboratory test to assist in the diagnosis of GCA; it has been used for decades.

Approximately 85% of patients with GCA will have an elevated ESR, >50 mm/hour. 13

While strongly supportive of GCA, it is negative in up to 17% of GCA cases and thus is insensitive for ruling out the disease.<sup>15</sup>

Another major limitation of the ESR is the extreme non-specificity of an elevated test. Any inflammatory/infectious condition, as well as increasing age, can cause elevation in the ESR. Other conditions that raise the ESR are female sex, connective tissue disorders, anemia, hypercholesterolemia, and trauma. Despite its limitations most authors still recommend the use of the ESR in the laboratory evaluation of GCA.<sup>2,5-8,14,15</sup>

#### CRP

The CRP is an acute phase reactant that is released by the liver in response to a wide variety of inflammatory/infectious stressors. The CRP has become an important diagnostic laboratory test in the evaluation for GCA. An elevated CRP has a reported sensitivity of up to 97.5% to 100% for active GCA. 2,16,17

CRP also has distinct advantages over the ESR in that it does not elevate for age, anemia, and sex like ESR does.<sup>2,5</sup>

#### CRP and ESR

When used together, the combination of ESR and CRP has a reported sensitivity of over 99% for identifying patients with GCA, as well as a specificity of 97%, and is therefore a very important part of the work-up in excluding GCA in patients.<sup>16,17</sup>

#### CBC

The most important element in the CBC when evaluating a patient for GCA is the platelet count. Thrombocytosis (platelet count >400 x  $10^3/\mu$ L) may be present in 50% to 60% of patients with biopsyproven GCA. <sup>18,19</sup> This makes the platelet count a useful laboratory test for GCA, as thrombocytosis carries with it both high specificity (91%) and a high positive predictive value (87%). <sup>19</sup>

Again, it cannot be used to rule out the disease due to low sensitivity. <sup>2,5,19</sup>

Many patients with GCA will have a normocytic, normochromic anemia, as well. However, this is an incredibly non-sensitive and non-specific finding and should not be relied upon as evidence for or against the diagnosis of GCA.<sup>2,5,7,8</sup>

Imaging modalities specific to assisting in diagnosis of GCA

There are no gold standard imaging studies that need to be performed in the urgent care or emergency department setting. They should generally only be ordered at the discretion and guidance of subspecialty consultants.

#### Temporal artery biopsy

Finding histological evidence of giant cell arteritis on biopsy of the temporal artery is the gold standard for diagnosis of the disease and should be done on any patient over 50 years of age when there is the slightest suspicion for the disease. 1,5,7,8,10,13 As will be discussed in the management section, it is important to attempt to confirm the diagnosis before beginning treatment, due to the untoward side effects of potential long-term steroid therapy. Even so, unfortunately, the sensitivity for biopsy is only 87%. 5

In 1990, the American College of Rheumatology (ACR) developed diagnostic criteria that were 94% sensitive and 91% specific for the diagnosis of GCA if three

out of the five criteria were met (Table 3).4,8

However, some are concerned that the ACR's recommendations do not incorporate important findings such as visual symptoms, jaw claudication, scalp tenderness, and elevated CRP into the decision making process.5 Thus, the ACR's guidelines by themselves should not be considered adequate to exclude the disease entirely. Rather, they may be helpful in pointing out high-risk patient characteristics.

It is not necessary to have biopsyproven GCA in order to diagnose and treat the disease. In the literature, it is sometimes referred to as biopsypositive and biopsy-negative GCA.

If clinical suspicion is high enough in the appropriate patient, treatment will frequently be continued regardless of the biopsy results. This is necessary due to the insensitivity of temporal artery biopsies, as well as the

#### Table 4. Two Treatment Options Exist for the Provide

#### **Treatment Option #1**

If GCA is suspected and the patient has no visual or neurological signs or symptoms (e.g., headache, dizziness, TIA, CVA, paresthesias, mononeuropathies), it is reasonable to begin the patient on oral prednisone at a dose of 1 mg/kg/day (max 60 mg/day to 80 mg/day). 1,2,5,7

#### Treatment Option #2

If GCA is suspected and the patient complains of visual and/or neurological signs, then consider IV methylprednisolone at 1 g every day for 3 days or, alternatively, 250 mg IV methylprednisolone every 6 hours for 3 days. 1,2,5,7 (This, of course, would require transfer to an inpatient facility.)

> potentially disastrous consequences of withholding therapy. 1,2,20

#### **Management**

The overwhelming guiding principle in management of GCA is to halt the inflammatory process and attempt to prevent the morbidity associated with ischemic compli-

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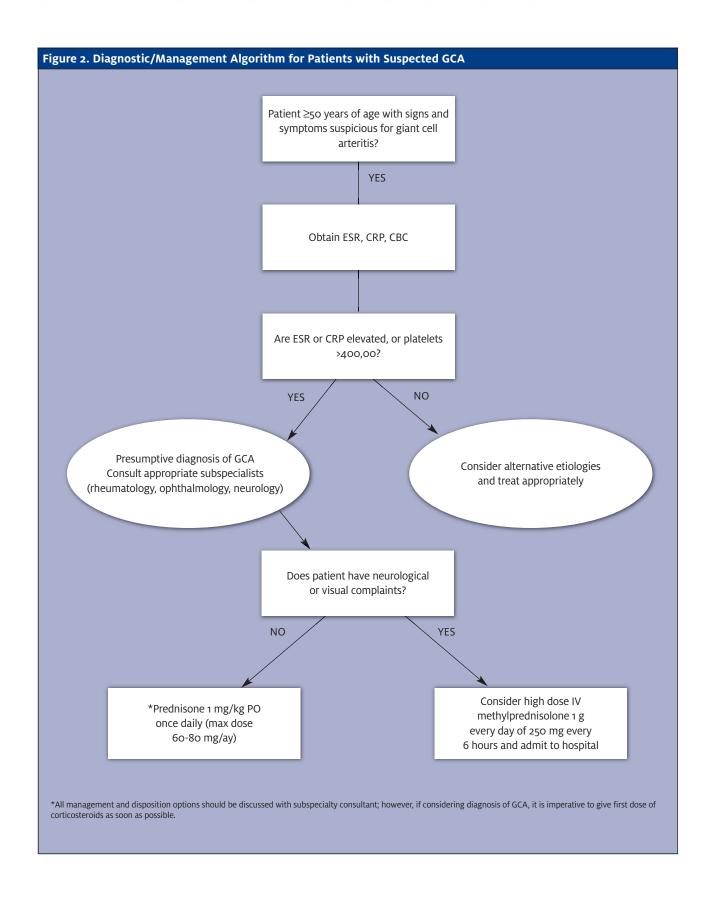
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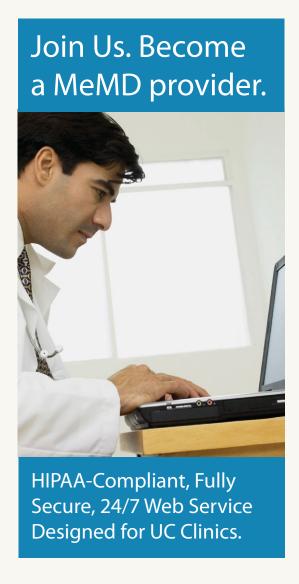
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cations, such as permanent vision loss.<sup>2,5,7,8,20</sup> Other potential complications seen in patients with GCA can include subclavian steel syndrome, arm claudication, and thoracic aneurysms (which can occur up to 15 years after the diagnosis of GCA is made).

#### Corticosteroids

The gold standard treatment in the management of GCA is corticosteroids. While there have been no universally accepted recommendations on dosing, route of administration, and length of treatment, there is one point that is agreed upon by nearly all authors: the prompt initiation of treatment.<sup>2,5,8,20</sup>

Clinicians may be reluctant to place a patient on steroids for fear of interfering with biopsy results that may be done in the future. This concern is unfounded, however, as there is evidence that histological findings of disease are present up to six weeks after steroids are initiated. <sup>21</sup>

Treatment with steroids should be started as soon as the diagnosis is entertained. GCA does *not* require a histological diagnosis or any other confirmatory lab/imaging study in order to give the first dose of steroids. The importance of early treatment was demonstrated by one study that revealed when steroids were begun within 24 hours of symptom onset, visual symptoms improved in 57% of patients, compared with only 6% of patients improving when treated outside the 24-hour window. <sup>22</sup>

Several different steroid regimens to treat GCA have been suggested by various resources and authors. The urgent care provider should not worry about the specific recommendations, as many deal with duration of treatment (months versus years), tapering dosages, and various steroid alternatives such as methotrexate and TNF-alpha inhibitors. All of these should be managed by the subspecialty consultants who will follow the patient over time. <sup>1,2,5,7</sup>

There are generally agreed-upon principles of management that the clinician can use to guide treatment, however, as highlighted in **Table 4**.

The general consensus in the literature is that there is no strong evidence to support one route over the other (IV versus PO), but these recommendations are generally agreed upon by most authors.<sup>20</sup>

#### **Consultation**

Subspecialty consultant guidance should be obtained early in the patient encounter, as soon as the diagnosis of GCA is entertained. Rheumatology, ophthalmology, and neurology are appropriate consultants to involve, depending on the patient presentation. However, a rheumatologist usually guides management over the

long term, as patients are typically treated with steroids for many months (and frequently for years). 1,2,5-7

Consultants will be able to help guide decision making on disposition and follow-up; however, most patients placed on high-dose steroids for the suspicion of GCA are admitted to the hospital to observe for complications of such treatment, as well as concerns over diagnostic uncertainty.

Another indication for direct admission or transfer to an ED is any concern over compliance with the treatment regimen. Providers should be wary of sending older patients home without first confirming the patient's ability to obtain medication, adequate transportation to follow-up appointments, and a sufficient social support system in place to encourage compliance with therapy.

Patients with other comorbidities, especially diabetes, should also be transferred to an ED or admitted directly through a consultant, as high-dose steroids will likely result in worsening disease which will benefit from in-hospital monitoring.

The complications arising from steroid use are well known and consultants will be invaluable in determining the appropriateness of alternative therapies such as methotrexate and TNF-alpha blockers, among others. These treatments have not gained widespread acceptance yet and should only be instituted under guidance from consultants and will rarely occur in the acute setting. 1,2,5-7

#### **Conclusion**

GCA can be an elusive and challenging disease to diagnose. As such, clinicians should be vigilant for its signs and symptoms, and diligent in asking, "Could this patient have GCA?" Specifically, we should be suspicious in any patient over 50-years-old who has non-specific complaints such as alteration in well-being, new headaches, scalp or temporal pain, and visual complaints, as prompt treatment is necessary to avoid potentially devastating consequences.

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# ABSTRACTS IN URGENT CARE

# On Cephalexin vs. Clindamycin, Intussusception in Children, Lidocaine with Epinephrine, Measuring Medication for Children, and AOM in Children Under 2

NAHUM KOVALSKI, BSc, MDCM

ach month, Dr. Nahum Kovalski reviews a handful of abstracts from, or relevant to, urgent care practices and practitioners. For the full reports, go to the source cited under each title.

#### Randomized Controlled Trial of Cephalexin Versus Clindamycin for Uncomplicated Pediatric Skin Infections

Key point: When it comes to curing skin infected with MRSA (methicillin-resistant Staphylococcus aureus), timely and proper wound cleaning and draining may be more important than the choice of antibiotic.

Citation: Chen AE, Carroll KC, Diener-West M, et al. Pediatrics. 2011;127(3):e573-e580.

Researchers originally set out to compare the efficacy of two antibiotics commonly used to treat *Staph* skin infections, randomly giving 191 children either cephalexin, a classic anti-Staph antibiotic known to work against the most common strains of the bacterium but not methicillin-resistant *Staph* aureus (MRSA), or clindamycin, known to work better against the resistant strains.

Much to the researchers' surprise, drug choice didn't matter: 95% of the children in the study recovered completely within a week, regardless of which antibiotic they got.

The finding led the research team to conclude that proper wound care, not antibiotics, may have been the key to healing.

Proper wound care has always been the cornerstone of skin infection treatment but, the researchers say, in recent years more



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physicians have started prescribing antibiotics preemptively.

Although the Johns Hopkins investigators did not advocate against prescribing antibiotics for uncomplicated MRSA skin infections, they did call for studies that directly measure the benefit of drug therapy versus proper wound care. The best study, they say, would compare patients receiving placebo with those on antibiotics, along with proper wound cleaning, draining, and dressing.

The 191 children in the study, ages 6 months to 18 years, were treated for skin infections at Hopkins Children's from 2006 to 2009. Of these, 133 were infected with community-acquired MRSA, and the remainder had simple *Staph* infections with non-resistant strains of the bacterium.

At 48-hour to 72-hour follow-ups, children treated with both antibiotics showed similar rates of improvement; 94% in the cephalexin group improved and 97% in the clindamycin group improved. By one week, the infections were gone in 97% of patients receiving cephalexin and in 94% of those on clindamycin.

Those younger than 1 year of age and those whose infections were accompanied by fever were more prone to complications and more likely to be hospitalized. ■

# Clinical Decision Rule for Intussusception in Children

Key point: A clinical decision rule identified low-risk patients who might not require further imaging beyond plain radiography. Citation: Weihmiller SN, Buonomo C, Bachur R, et al. Risk stratification of children being evaluated for intussusception. *Pediatrics*. 2011;127(2):e296-e303.

In a prospective observational study, investigators developed a decision rule for diagnosis of intussusception based on clin-

#### ABSTRACTS URGENT CARE

ical and radiographic findings in 310 children (age range, 1 month to 6 years) who presented to a pediatric emergency department in the U.S. with clinically suspected intussusception.

Patients who had histories of intussusception, abdominal surgery, or gastrointestinal disorders were excluded.

Providers recorded selected historical and clinical findings before radiologic studies. On the basis of final radiology reports, plain radiographs were classified as positive (e.g., small bowel obstruction, target or crescent sign), possible positive (e.g., abnormal gas pattern, air fluid levels, dilated intestinal loops), or negative.

Overall, 38 patients (12%) had intussusception; none were younger than 5 months.

The authors used recursive partitioning analysis to create decision rules for identifying low-risk patients. A decision rule identified low-risk patients as those with negative radiographs who were ≤5 months or who were >5 months with diarrhea and no bilious emesis. The rule had sensitivity of 97%, negative predictive value (NPV) of 99%, and negative likelihood ratio (NLR) of o.o8 for identifying intussusception. Plain radiographs alone had sensitivity of 77%, NPV of 96%, and NLR of 0.29.

This decision rule is based on a small sample (only 38 patients had intussusception) and needs validation. However, the authors' recommendations make sense: All patients with suspected intussusception should undergo plain radiography. If radiographs are normal and the patient is either ≤5 months or >5 months with diarrhea and absence of bilious vomiting, then a period of observation and serial examinations without further imaging is advised.

Published in J Watch Emerg Med, February 25, 2011—Katherine Bakes, MD.

#### Lidocaine with Epinephrine Is Safe for Hand Surgery

Key point: The prevailing wisdom against use of epinephrine near end arteries appears to be wrong.

Citation: Chowdhry S, Seidenstricker L, Cooney DS, et al. Do not use epinephrine in digital blocks: Myth or truth? Part II. A retrospective review of 1111 cases. Plast Reconstr Surg. 2010;126(6):2035-2036.

In a single-center retrospective study involving more than 1,000 consecutive patients undergoing hand surgery, the use of epinephrine in digital blocks did not increase the risk for vascular compromise in the hand or digits. Compared with the 500 patients who received digital blocks with just lidocaine (dose range, 2 cc-10 cc; average, 5.7 cc), the 611 who had blocks with lidocaine plus epinephrine (1:100,000; average dosage, 4.33 cc) were no more likely to suffer from digital gangrene, nerve injury, or unusually delayed wound healing. In fact, no gangrene occurred in the epinephrine group.

This study adds to the literature evidence that the venerable prohibition of the use of epinephrine in local anesthesia close to end arteries is based on a theoretical risk that virtually never materializes in practice.

Prior studies have shown that ischemia and infarction do not occur when lidocaine with epinephrine is used to diffusely infiltrate surgical sites on the hands.

This study shows that digital blocks with epinephrine are safe, as well. Of course, reasonable precautions should still be observed: There is no need to use more anesthetic than necessary, and epinephrine is best avoided in patients with severe peripheral vascular disease, such as Raynaud syndrome.

As in most surgical studies, the outcomes are linked to operator skill. Nevertheless, the overall message is that drawing up special anesthetic for hand surgery is unnecessary.

Published in J Watch Dermatol, February 18, 2011—Murad Alam, MD, MSCI. ■

#### **Most Pediatric OTC Liquid Medications Have Inconsistent Dosing Directions and Measuring Devices**

Key point: Better communication of dosing for over-the-counter drugs is necessary.

Citations: Yin HS, Wolf MS, Dreyer BP, et al. Evaluation of consistency in dosing directions and measuring devices for pediatric nonprescription liquid medications. JAMA. 2010;304(23): 2595-2602.

DeWalt DA. Ensuring safe and effective use of medication and health care: Perfecting the dismount. JAMA. 2010;304(23): 2641-2642.

In 2009, the FDA issued the following voluntary guidelines for over-the-counter (OTC) liquid medications:

- 1. All liquid OTCs should include a measuring device.
- 2. Measuring devices and directions should use consistent abbreviations and units of measurement.
- 3. Dosing devices should not have extraneous markings or hold more than the maximum dose.
- 4. Abbreviations should be standard and defined.
- 5. Decimals or fractions should be used cautiously.
- 6. Studies should confirm accurate use by consumers.

At the time the FDA issued its guidelines, researchers examined dosing devices and directions for 200 of the most commonly used pediatric OTC liquid medications. Seventy-four percent of the products contained a measuring device, and 98% of these had inconsistencies between dosing directions and device markings (including superfluous device markings in 81% and missing dose markings in 24%). Five percent of products used nonstandard units of measure (e.g., dram, cc, fluid ounce) and 55% used fractions. Most products did not state that the measuring device should be used only with the

#### ABSTRACTS IN URGENT CARE

associated product.

Risks associated with inaccurate dosing of OTC medications are well known. When we instruct parents to administer medications—whether OTC or prescription—we often fail to apply the same rigor to ensuring accurate drug delivery as we do to diagnosing and establishing a treatment plan. Patient safety must be our first priority.

Published in *J Watch Pediatr Adolesc Med*, January 12, 2011—F. Bruder Stapleton, MD. ■

# Treatment of Acute Otitis Media in Children Under 2 Years of Age

Key point: 'Watch and wait' unless symptoms are severe or certain risk factors exist.

Citation: Hoberman A, Paradise JL, Rockette HE, et al. Treatment of acute otitis media in children under 2 years of age. *N Engl J Med*. 2011;364(2):105-115.

The authors randomly assigned 291 children 6 to 23 months of age, with acute otitis media diagnosed with the use of stringent criteria, to receive amoxicillin–clavulanate or placebo for 10 days. They measured symptomatic response and rates of clinical failure.

Among the children who received amoxicillin–clavulanate, 35% had initial resolution of symptoms by day 2, 61% by day 4, and 80% by day 7; among children who received placebo, 28% had initial resolution of symptoms by day 2, 54% by day 4, and 74% by day 7 (p=0.14 for the overall comparison).

For sustained resolution of symptoms, the corresponding values were 20%, 41%, and 67% with amoxicillin–clavulanate, as compared with 14%, 36%, and 53% with placebo (p=0.04 for the overall comparison). Mean symptom scores over the first 7 days were lower for the children treated with amoxicillin–clavulanate than for those who received placebo (p=0.02).

The rate of clinical failure — defined as the persistence of signs of acute infection on otoscopic examination — was also lower among the children treated with amoxicillin–clavulanate than among those who received placebo: 4% versus 23% at or before the visit on day 4 or 5 (*P*<0.001) and 16% versus 51% at or before the visit on day 10 to 12 (*P*<0.001). Mastoiditis developed in one child who received placebo.

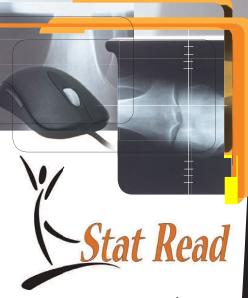
Diarrhea and diaper-area dermatitis were more common among children who received amoxicillin–clavulanate. There were no significant changes in either group in the rates of nasopharyngeal colonization with non-susceptible *Streptococcus* pneumoniae.

Among children 6 to 23 months of age with acute otitis media, treatment with amoxicillin–clavulanate for 10 days tended to reduce the time to resolution of symptoms and reduced the overall symptom burden and the rate of persistent signs of acute infection on otoscopic examination.

Dr. Tzahi Grossman, Director of the Israeli Association of Pediatrics, noted that the conditions of examination as done in these studies were much more strict than those in the typical primary care environment. He noted that 2 out of 3 children with OM will heal without treatment. As such, the recommendation stands to watch and wait unless there are severe acute symptoms, high risk factors or other significant clinical issues.

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# PEARLS FROM PRACTICE

# **Explaining Sinus and Ear** Pressure/Pain to Patients

ALI AHMADIZADEH. MD

nombined, sinus and ear pressure/pain is one of the most common complaints in daily practice. That does not nec-Uessarily mean its dynamics are well understood by the patient. of course.

You may find, however, that helping patients to understand those dynamics encourages compliance with treatment and offers valuable rationale when turning down demands for antibiotic prescriptions that you deem to be unnecessary. This leads not only to more satisfied patients (who are therefore more likely to return to your facility), but also bolsters our fight against irresponsible use of antibiotics and the resultant growth of resistance.

I have found success by trying to explain the law of LaPlace to my patients.

I start by drawing a cube with an open sideline pipe which maintains free air flow (Figure 1).

The cube, which I now compare to any empty space in the body, including sinuses and middle ear, can equalize its pressure to the outside through an open pipe. Now, if for any reason (such as congestion or anatomical abnormalities) the pipe closes, the cube becomes a closed space, which has a constant number (C) when pressure (P) is multiplied by volume (V).

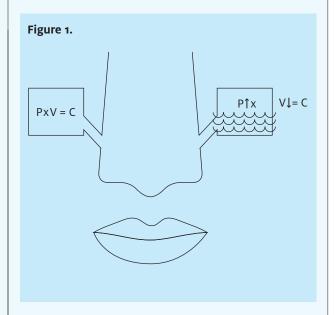
The entire process can be expressed as in the following equation:

#### Law of LaPlace $P \times V = C$

The net effect is that if for any reason the pressure goes



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up, the volume has to go down, and vice versa.

This ties back in with the common complaint of sinus and/or ear pressure or pain. When there is an upper respiratory infection, most of the natural ostia of the sinuses are closed. Multiple empty spaces of sinuses covered by active mucosa are now subject to the law of LaPlace.

If, due to congestion of the mucosa and/or secretion of inflammatory products, the volume of the sinus cavity decreases, then the pressure inside of that cavity (sinus, in this example) will rise. The patient would experience this as sinus pressure or pain.

A prime example of how this manifests would be the patient who has an upper respiratory infection during a plane ride. A change in cabin pressure will have a fast effect over the already closed sinus space, and one will feel immediate pressure or pain. (It is to be noted that changes in cabin pressure will exert different force depending on whether the plane is taking off or landing.)

#### PEARLS FROM PRACTICE

Imagine that the cube in our diagram has one expandable side—like the middle ear with tympanic membrane. When the eustachian tube is closed or has malfunction. the pressure change inside the now closed middle ear space will cause bulging or retraction of the eardrum to adjust, per the law of LaPlace.

When more compensation is needed, the middle ear mucosa will secrete or shrink, depending on pressure changes, and cause serous otitis media, hearing change and pain, or tympanic perforation when tympanic membrane compensation fails.

This explanation is usually appreciated by my patients, who then realize that most of their symptoms could be prevented by maintaining the opening of natural ostia of the cavity; this includes use of decongestants and, if that proves unsuccessful over the long term, surgical intervention to open or create an ostium.

The patient will also realize that the role of antibiotics would be a very limited one—if they have any role at all. ■

GCA, continued from page 18.

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# Share Your Pearls!

Have you hit upon a technique to help patients understand why that antibiotic they "have to have" might actually do them more harm than good? Or to keep a patient from gagging when the nurse swabs his throat for a rapid strep test?

Share your tricks of the trade with your colleagues in JUCM. Describe your practice pearls in a brief email to editor@jucm.com. We'll get in touch and you may see it published in an upcoming issue.





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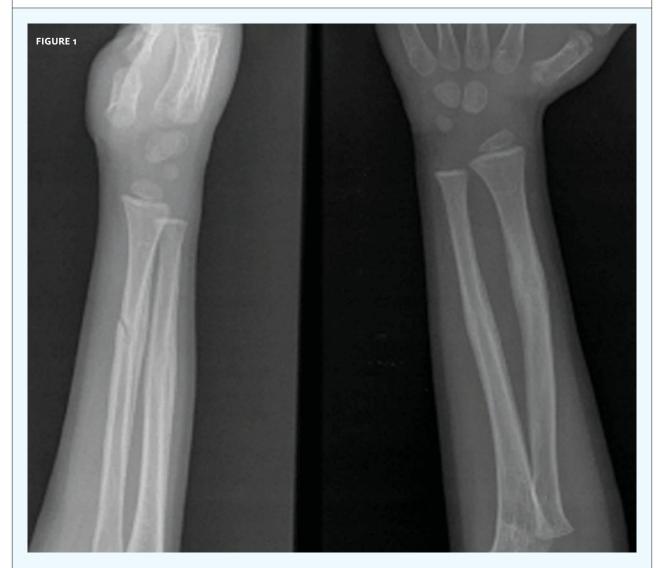
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In each issue, JUCM will challenge your diagnostic acumen with a glimpse of x-rays, electrocardiograms, and photographs of dermatologic conditions that real urgent care patients have presented with. If you would like to submit a case for consideration, please email the relevant materials and presenting information to editor@jucm.com.



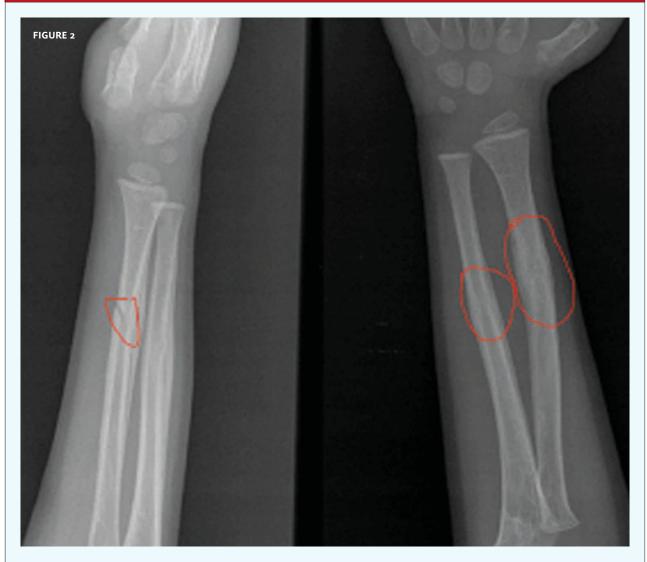
The patient is a 4-year-old child who presents after experiencing a blow to the forearm while taking a fall. He is otherwise well-appearing, and other than pain in the affected arm the examination is unremarkable.

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.

#### INSIGHTS IN IMAGES: CLINICAL CHALLENGE

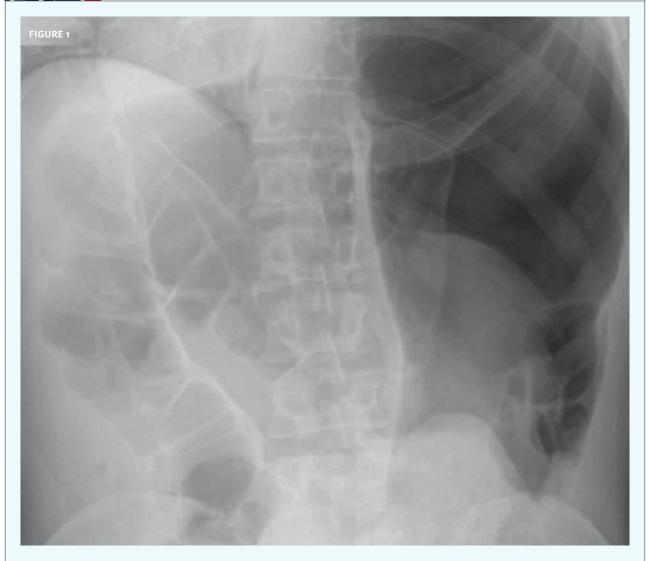
#### THE RESOLUTION



The x-ray reveals a radius distal fracture.

In addition to the evident fracture, however, there are signs of healing from a previous recent fracture. The issue, then, is why two fractures occurred so close together in time. This raises the possibility of abuse and must be investigated.





The patient is a 49-year-old woman who presents with a two-day history of chest pain and vomiting.

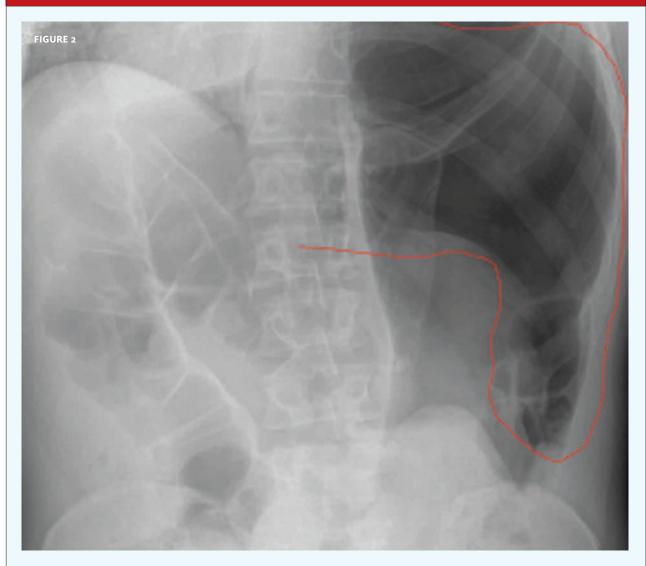
The exam reveals no cause for alarm, and other than the primary complaint the patient is in no remarkable distress. However, you discover that she has had intestinal volvulus twice in the past.

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.

#### INSIGHTS IN IMAGES: CLINICAL CHALLENGE

#### THE RESOLUTION



The x-ray is consistent with volvulus. This patient was, in fact, determined to have a volvulus. She was referred to hospital for surgical management.

Acknowledgment: Cases presented by Nahum Kovalski, BSc, MDCM, Terem Emergency Medical Centers, Jerusalem, Israel.

These cases are among hundreds that can be found in Terem's online X-ray Teaching File, with more being added daily. Free access to the file is available at https://www2.teremi.com/xrayteach/. A no-cost, brief registration is required.

# Practice Management

# Competitive Analysis to Stand Above the Crowd

**Urgent message:** Providing high-quality care and good service is not necessarily enough to attract and keep patients, especially if those patients can take their pick from among several urgent care centers. More and more, urgent care operators need to be aware of how their competitors operate.

Alan A. Ayers, MBA, MAcc

Il too often, urgent care entrepreneurs operate in a vacuum. They feel that if they offer a well-appointed facility with good signage, convenient hours, and insurance participation, patients will come. And if those patients receive friendly service and quality care, they will return and tell friends and family to do likewise.

But such an operations focus ignores that others are courting the same patient base—everything you do well, a competitor might be doing better. Thus, it's critical for urgent care operators

to understand the strengths and weaknesses of their competition and to respond with strategies to make their centers stand above the crowd.



#### Physicians' Dilemma of Competition

Physicians are no strangers to competition. Throughout their lives they compete for good grades, admission to medical school, acceptance to residency, and even for patients and referrals by providing higher quality services than their peers.

But when it comes to the "business" of medicine, some physicians are uncomfortable with the concept of competition. This may be due to a history of collaboration through professional associations, the need for solidarity in the

face of uncertain payor and regulatory environments, or personal ethics that simply dictate "hands off" another provider's patients.

Economics teaches that the presence of competition



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Table 1: Sample Urgent Care Competitor Evaluation Grid			
Table is the state of the state	My UCC	Competitor A	Competitor B
Number of Locations	,		
Physical Facility			
Street address			
Type of facility (e.g., freestanding, medical building)			
Size of facility			
Traffic count			
Size and visibility of exterior signage			
Ease of turning into/exiting the center			
Curb appeal of facility			
Interior condition/aesthetics of facility			
Adjacent tenants (driving traffic/visibility)			
Operating Hours			
Monday-Friday			
Saturday			
Sunday			
Holidays			
Operating Model			
Ownership (e.g., hospital, physician, corporate, etc.)			
Owner name(s)			
Investor name(s)			
Affiliations			
Certifications (e.g., UCAOA certification)			
Accreditations (e.g., JCAHO urgent care accreditation)			
Scope of Services			
Urgent care			
Target consumer segments			
Imaging services (digital/analog x-ray, ultrasound, etc.)			
Lab services (certifications, complex vs. waived)			
Procedures/minor surgery			
Occupational medicine			
Key accounts, target clients			
Workers compensation network participation			
Specialized physicals (DOT, FAA, etc.)			
Substance abuse testing (e-Screen, BAT, etc.)			
Employer on-site services			
Physical or occupational therapy			
Primary care			
Ancillary services (e.g. aesthetics, travel med)			
Staffing Model			
Provider staffing (physicians, mid-levels)			
Physician leaders			
Physician employment (employed vs. contractor)			
Physician background, board certification, reputation			
Physician tenure and turnover (provider vacancies)			
Physician pay and benefits			
Management/operations leaders			
Management/operations background and reputation			
Management and staff turnover (position vacancies)			
Reimbursement and Collections			
Credentialing/billing/collections model (in-house/outsourced)			
Insurance plans accepted			
Uninsured pricing/cash discounts			
Marketing Tactics			
Paid advertising			
Grassroots			
Internet/social media			
Marketing staff or agency			
Referral relationships (primary care, ED, etc.)			

spurs innovation, reduces prices, increases transparency, and improves the quality of products and services. Urgent care—a solution for basic medical access that saves time and money—is proof that a competitive healthcare marketplace can benefit patients, providers, payors, and other stakeholders.

But unlike other types of medical practice that rely on professional relationships or hospital affiliations for referrals, urgent care is essentially a "retail" model that appeals directly to a consumer decision-maker. This means urgent care operators must identify, evaluate, and respond to competitors—direct competitors in the form of other walk-in, retail and occupational health centers and indirect competitors in the form of hospital emergency rooms and primary care offices.

#### **Identify and Evaluate Competitors**

Put yourself in a prospective patient's shoes and ask yourself, "What is every alternative available to treat my minor illness or injury?" Make a list of all the options that come to mind—including doctors' offices, emergency rooms, "non-providers" such as the Internet, and even "self-treatment" using over-the-counter medication. Every option on your list is a competitor—and the ideal outcome of competitive research is to assure your center offers consumers something greater than those

For local, "brick-and-mortar" competitors, become familiar with their service offerings, operating model, and marketing tactics by visiting their physical locations, checking out their websites, and gathering their advertising collateral to assess:

- What is the scope of their services? What overlaps with what I'm doing? Are they adding anything new?
- What types of marketing or promotions tactics are they using? What is the public's awareness of their facility and perceptions of their brand? Have advertising levels increased or decreased?
- What is the positioning of their physical facility? Do they have visible signage, easy entrance/exit from the street, and is there plenty of well-lit parking? How does their location, facility, and signage compare to mine?
- What are their operating hours, and how long are their typical wait times?
- How many cars are parked outside their facility at various times of day?
- When you call on the phone, are you greeted by a friendly voice-or put on indefinite hold by an

- overburdened front desk staff?
- Who are the owners, what is their source of funding, and what are their expansion plans?
- What has been reported in the local news about
- What are the background and qualifications of their medical staff?
- From where do they recruit providers, and do they currently have any staff openings posted? What is their reputation among their current and former employees and referral providers in the community?
- If it's a multi-site operation, what geographic areas are they expanding into, and what areas might they expand to next? Have they grown organically or through acquisition?
- How are they doing financially?
- How many visits per day are they averaging? Are their volumes increasing or decreasing?

(Table 1 provides a chart that can be used to evaluate each competitor's strengths and weaknesses relative to your own operation.)

Some urgent care operators have also been known to enlist friends or family members to physically visit the competitor's facility for services and provide feedback on their experiences afterwards.

Regardless of the source, information gathering should be without falsification or misrepresentation and through observations and information sources generally available to an inquiring public.

#### **Strategic Response to Competitive Insights**

Identifying and evaluating competitors will illuminate the strengths that should differentiate your center. As you research competitors, ask what each is doing well and what could be improved upon.

What makes them successful or unsuccessful? How loyal is their patient base? How convenient or affordable is their product?

And, ultimately: What opportunities can you seize?

With this information, you can develop operations and marketing plans to better position your center to attract patients. For example, if you observe cars parked outside a competitor at 7:55 in the morning and you don't open until 9 a.m., could you start opening at 7:30 to better serve patients needing services before

Or, if you learn your competitor is advertising \$12 high school sports physicals and you realize you won't be competitive at \$35, could you find a creative way to

Continued on page 37



# HEALTH LAW

# The Unsociable Network

■ JOHN SHUFELDT, MD, JD, MBA, FACEP

work with a non-physician professional in the emergency department. She is very intelligent, practical, and always helpful. There is only one small issue: many of her posts on her Facebook page are overtly anti-patient. She frequently rants about the stupid patients, how "bad" the clientele we treat act and how, ultimately, they get what they deserve.

Despite her obvious intelligence, she has not realized that what she posts is discoverable and possibly admissible in court.

I know of a number of providers who advocate the use of medical marijuana, and post frequently about their own marijuana use as well as the medical benefits of marijuana.

I know of at least one case where a defendable case was settled after the plaintiff's attorney uncovered online posting of the defendant physician which, if made public, would have shined a very poor light on the physician and hospital.

I know what you are thinking. "My site is blocked to everyone except my closest friends; no one else can see what I post." As Jerry Seinfeld once replied to Kramer, "Holy Moses, smell the roses!" I have had a number of computer savants tell me that they can "get into anyone's Facebook page they want, no matter how well it is blocked."

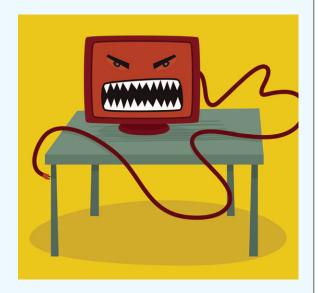
The point is this: What you may think is viewable only to your friends may in fact be easily discoverable and, once discovered, may be used as evidence against you in a medical malpractice trial or medical board disciplinary action.

Here are a couple of ways this could play out:

You see a patient with low back pain. You take a thorough history, perform a complete exam, and document and discuss with the patient that you believe his pain is secondary to muscle spasm. The patient returns three days later and is ultimately diagnosed with an epidural abscess. The patient has a poor outcome and files suit against you, the urgent care center, and the joint venture partner hospital.



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Everything looks great for the defendants, though; the chart is well documented, the exam thorough, and the discharge instructions clear and time sensitive.

There is only one small fly in the Bengay: the opposing attorney found a "tweet" you posted complaining about drug-seeking patients with low back pain. Now, all bets are off. The opposition is going to blow up the "tweet" and project it in front of the jurors and attempt to argue that you have a bias (based upon your tweet) against patients with low back pain.

You eventually settle what would have been a very defendable case before trial.

■ You are at a drug company-sponsored event with your group where is there is an open bar. You rarely drink alcohol, and are not the one pouring the drinks so you wisely choose to have only a few vodka cranberries.

On the way home, you are stopped for not using your blinker before making a turn. The officer questions you about alcohol consumption; you respond honestly that you only had three drinks. Unfortunately, you fail the HGN (horizontal gaze nystagmus) test and the breath-



# OCCUPATIONAL MEDICINE

# Using Workplace-based Education as a Marketing Tool

FRANK H. LEONE, MBA, MPH

ffering a key decision-maker a tour of your facility is often helpful in signing a new client. But what about the Uscores of individuals who work for that company? They're not likely to come traipsing through your clinic en masse, hungry to learn about your services.

Remember what the infamous criminal Willie Sutton said when a reporter asked him why he robbed banks: "That's where the money is." Similarly, if you want to reach the workers who will be treated at your facility, you need to go where they are. Taking your "show" on the road is an excellent branding opportunity for your clinic, allowing you to connect directly with hundreds, if not thousands, of prospective clinic users, often setting up an employer prospect for further sales activity.

Following are some tried-and-true tips for making the most of that opportunity.

Tip #1: Create a finite package of educational offerings. Many clinics create a "one size fits all" presentation that is offered to every comer, thus neglecting the priority needs at individual companies.

Conversely, some clinics create one-time-only talks tailored to every individual company.

We have found that a middle ground works best. Design, say, five different programs and provide the one program that is most relevant to a particular company.

Tip #2: Select a topic of interest that is occupational health-relevant. Many times, the choice of a topic is dependent upon who within your clinic family is willing to



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speak. The pet topic may be a good one, and the speaker may be competent and polished, but if the prospective audience is not interested they will stay away in droves.

Likewise, the goal of a talk should be to create greater awareness of occupational health issues. If you are trying to educate and motivate your publics, why not deal directly with work-related health and safety issues?

Tip #3 Seize the moment. Take full advantage of your exposure. Ask for the name and email address of everyone in the audience. After, send personal, information-oriented emails to individual workers.

At its core, outstanding marketing is basically a numbers game. One workplace lecture a week before just 50 employees would generate (assuming 80% would offer their email address) 2,080 individual email addresses per year. Monthly email advice for 2,080 members of your community provides an excellent opportunity to brand your clinic in a positive light.

Tip #4 Make it fun and add some pizzazz. Veterans of quality sales training programs recognize that the best way to teach something is to create an interactive, fun atmosphere. Ask your audience for their opinion, offer little contests with some type of prize or reward, or do a brief pretalk and post-talk survey ("Let's see if and how your perspective has changed...").

Tip #5 Talk the talk of the common man. There is usually dissonance between "provider-speak" and "employerspeak" and an even greater gap between provider-speak and rank-and-file worker-speak. Frame your message in simple phrases and concepts that can be understood by everyone.

Tip #6 Learn something from your audience. Education should be a two-way street. Ask your audience to complete a short mini-questionnaire (perhaps three to five multiple-

#### OCCUPATIONAL MEDICINE

choice questions) and supplement the quiz with show-of-hands questions ("How many of you...?").

Use this information to customize the presentation and provide feedback to your employer client. For example, you might ask everyone to write down "the one thing that your company should do to make your workplace safer and healthier." Results from such questions can be an eye-opener for the employer and may lead to greater opportunities for your clinic.

**Tip #7 Post results on your website.** Why not ask the same questions at every worksite and publish the composite results (e.g., "Across 2,000 employees in Gotham City, 23% felt that poor communication with senior management was the number-one deterrent to optimal workplace health and safety").

After awhile your "N" will be large enough to offer cross-tabulations comparing area companies by size or broad industry classifications.

The more other companies are exposed to such information, the more likely they will want your clinic to speak at their worksite.

**Tip #8 Keep a few relief pitchers warmed up in the bullpen.** If just one person is your go-to educator, your goal of one onsite presentation per week will quickly dry up. Thus, a goal of 50 programs per year could easily fall to only 10 programs per year, thus rendering your entire onsite education plan just 20% as far-reaching as it could be.

**Tip #9 Place your talks in context.** Remember Mark Twain's famous idiom, "Tell 'em what you're going to tell 'em, tell 'em, and tell 'em what you told 'em." This structure should be central to all talks (and sales encounters, for that matter); place what you are about to say in the clearest of contexts and end every presentation with a brief synopsis of your key points.

Onsite education should be viewed as an outstanding opportunity for your clinic and an obligation to effectively serve your community. An educated and appreciative population will likely view your clinic in a better light, and an informed population is good for both your clinic and the community at large. Onsite education should be part of your clinic's portfolio and will have the best chance to succeed when it's offered with both forethought and careful planning.

#### **HEALTH LAW**

# "You should not post anything which you would not want shown to a jury... or your employer."

alyzer records a .09 and .095, which are both above the legal limit.

Your state medical board has explicit rules about self-disclosure, so you call and report your DUI charge. During your board interview, you honestly discuss your "typical alcohol consumption patterns," which are actually quite conservative. However, during the board's investigation, they find evidence on different social media sites where someone has tagged you in different pictures. Although these pictures are seemingly benign (vacation, ski trip weekends, birthday parties, etc), you are holding some form of an alcoholic beverage in the majority of them.

Now the board believes not only that you have a problem with alcohol, but also that you were not being honest with them during the investigation, which results in even further board actions.

Please wrap your head around this: *Everything* that makes its way to the worldwide web is discoverable and often admissible if the opposing attorney can make some causal link between your alleged actions or inactions and what you have posted. It may be as simple as making you out to be an uncaring or unsympathetic jerk in front of the jury. Although it may not be directly relevant, if part of the argument is that you did not take the time to follow up with the patient, the jury viewing you as uncaring will not bode well.

In cases where I am deposed as an expert, the opposing counsel often has every article I have ever written laid out on the conference table. I am sure that part of their goal is to intimidate me; however, the other part is to quote sentences out of context to me and see if I agree or disagree. If I disagree, the next phrase out of their mouth is, "Dr. Shufeldt, do you recognize this article? You should, you wrote it." The only good news in all this is that it makes the Journal's readership numbers go up. (To date, the only thing I regret is the "Checklist" article where I shared a picture of me holding a goose and wearing a dress at Mardi Gras.)

The final caveat is this: The bar for admitting evidence from social media sites is fairly low. You should not post anything which you would not want shown to a jury, your spouse, your partner providers, or your employer since it will be viewed in the worst possible light and in the worst possible way.



# CODING Q&A

# S9088 Coding for Medicare or Medicaid, Coding for SVT, and **Coding** 99211

DAVID STERN, MD, CPC

In one of your articles concerning the S9088 code •(services provided in an urgent care center), you indicate this code cannot be billed to Medicare or Medicaid. However, I read in another source that S9088 and S9083 (global fee for urgent care centers) had been approved by the Centers for Medicare and Medicaid Services (CMS) for billing these services.

What is the current status of these codes as they relate to Medicare?

- Ned Peple

All Healthcare Common Procedure Coding System •(HCPCS) codes are created by CMS. Part of the Health Insurance Portability and Accountability Act (HIPPA) was to require CMS to develop a standard set of codes for all payors. Thus, in order to keep a standard set of codes for all payors, CMS began making HCPCS codes specifically at the request of non-Medicare payors (i.e., commercial carriers). These codes are never for use by Medicare (even though they are created by CMS), and they all begin with the letter S. The resulting S codes are not "approved" for use by Medicare, but they were created by CMS. Thus, no S codes are billable to Medicare.

Individual Medicaid payors can decide to accept S codes, but Medicaid rarely accepts S codes.

How do you suggest coding for a patient who presents to urgent care in a supraventricular tachycardia (EKG performed—SVT), then converted to a normal



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#### sinus rhythm with carotid sinus massage?

- Robert Lanev

If you use external electrical shock to the heart, then you would use 92960 (cardioversion, elective, electrical conversion of arrhythmia; external).

If you perform intravenous medication (e.g., adenosine) for cardioversion, then you would use 90784 (therapeutic, prophylactic, or diagnostic injection (specify material injected); intravenous). You would add the appropriate HCPCS code(s) for the medication(s) injected. When billing for adenosine, use HCPCS code Jo150 (injection, adenosine, 6 mg) to specify the injected medication.

For cardioversion via other methods, such as valsalva, carotid massage, etc., there is no specific CPT or HCPCS code. You would include this procedure as part of the evaluation and management (E/M) code. ■

#### Must a physician be present in order to bill a 99211?

- Name withheld

A physician need not always be present to code services with 99211. The code allows practices to report E/M services that are rendered by non-provider staff members.

According to CPT (as published by the AMA), the guidelines for coding a 99211 are much less strictly defined. The staff member may communicate with the physician, but the physician's direct involvement in the episode of care is not required.

Medicare, however, interprets the requirements for this code differently. While the physician's face-to-face presence is not required to code a service with 99211, the physician must have initiated the service as part of a continuing plan of care in which he or she will be an ongoing participant (i.e., following "incident-to" guidelines). In addition, the physician must be physically present in the office suite when the service is provided.

#### CODING O & A

Thus, for services billed to Medicare, the physician must be physically on site.

For services billed to other third-party payors, your practice may instead opt to follow CPT guidelines, as long as this is allowed by your contract with the payor. If a provider is in the office, list the rendering provider as the provider who was in the office suite at the time services were rendered.

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"Competitive Analysis" continued from page 32

get into the schools to promote free physicals as a grassroots tactic and loss leader for athletic injury cases?

Likewise, say you want to build your workers compensation business but notice two or three occupational medicine competitors en route to the industrial businesses where injuries occur. Could your efforts be better invested in services that appeal directly to consumers?

#### **Competition and Site Selection**

Ignoring competition can lead to critical mistakes when developing a business plan—including whether to open the center in the first place. Before committing to a new location, it's important to understand:

- What competition is present and how is it positioned relative to consumer traffic and residential growth patterns?
- Can the area's population and demographics support one or multiple urgent care centers?
- Is there sufficient new business to support your center, or will you rely on capturing market share from an existing, weaker competitor?

#### Don't be deterred, however...

The presence of urgent care competition should not necessarily deter a prospective center. In fact, the more urgent care competition, the more marketing activity and the greater consumer awareness of how and when to utilize urgent care—benefiting all centers in the market. In most cases, a concentration of urgent care centers is merely reflective of high population density—in large markets, there are simply more people, and more urgent care centers are able to thrive.

Because many urgent care entrepreneurs open centers where they want to live and work—and not based on optimal demand or market potential—they frequently enter into highly competitive situations and then struggle to build their practices.

For example, major cities in Arizona, Florida, and Texas have a high density of urgent care centers, while nationally there are many other metropolitan areas with more than 50,000 people that could support at least one center but currently have none. Not only are these outlying communities ripe for an independent operator, but there is likely little to no competition except for the local hospital ED, meaning consumers should embrace urgent care as a long-awaited and muchneeded community resource.

Where there are too many urgent care providers chasing too little business, eventually one or a few will "fall out." For example, a recent news story in Lancaster, PA (population 55,351) describes how urgent care centers are "taking off" with local hospitals, out-of-state operators, and physician entrepreneurs opening a total of 12 walk-in centers by 2011 (five of which are within a 1.5mile radius). Another story out of Charlotte, NC reports that three urgent care centers have opened on one city block, each operating 12 hours per day, seven days a week.<sup>2</sup> It's likely after several years of these competitors "duking it out," markets like Lancaster and Charlotte will be a prime example of "survival of the fittest."

In such markets, it's even more critical to understand the strengths and weaknesses of competition and to position your business accordingly.

#### **Conclusion**

Whether an urgent care center survives or thrives is dependent upon how well it differentiates itself from competitors. Unlike other medical practices, urgent care depends on consumers to decide when, how, and where they seek care. Competitive research that takes the consumer's perspective in evaluating the strengths and weaknesses of various healthcare options can yield insights that help the urgent care operator better position his or her center to increase visits and capture market share.

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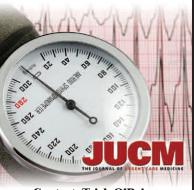


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# DEVELOPING DATA

n each issue on this page, we report on research from or relevant to the emerging urgent care marketplace. This month, we offer a first look at data from the 2010 Urgent Care Benchmarking Survey Results. The data are based on the responses of 209 U.S. urgent care centers, 78.8% of which were UCAOA members. The survey was limited to "full-fledged urgent care centers," the qualifications of which included accepting walk-ins during all hours of operation, as well as having a licensed provider on site, x-ray and labs on site, the ability to administer IV fluids and do minor procedures, and being open seven days a week, at least four hours per day.

In this issue: What percentage of visits to urgent care centers were exclusively for flu shots, month by month?

#### **EBB AND FLU**



As you can see, there are two periods of peak incidence for visits to urgent care for the sole purpose of getting a flu shot. If 2010 was any indication, the first, smaller wave should be building now and cresting next month. Are you prepared?

Acknowledgment: The 2010 Urgent Care Benchmarking Study was funded by the Urgent Care Association of America and administered by Professional Research Associates, based in Omaha, NE.

If you are aware of new data that you've found useful in your practice, let us know via e-mail to editor@jucm.com. We'll share your discovery with your colleagues in an upcoming issue of JUCM.

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