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Also in this issue

Management of Acute Hyperglycemia in Urgent Care (Part 1)

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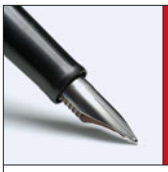
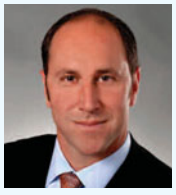


LETTER FROM THE EDITOR-IN-CHIEF

What a pain!



Pain management in urgent care is a minefield of monstrous proportions. The controlled substance prescribing landscape is booby trapped indeed, and the well-meaning, unsuspecting physician stands right in the middle. The regulatory, criminal and litigious nature of this highly charged issue is not to be trifled with.

Like it or not, physicians are essentially the licensees of some of the most dangerous and destructive weapons of modern medicine, and we have a clinical, legal and moral obligation to avoid BOTH under prescribing and over prescribing. To make things even more difficult, we must make these prescribing decisions based on limited information, clinical and otherwise, and do so without error. And to compound the challenge, our roles have expanded beyond our training to include investigative, enforcement, and judicial responsibilities. How do we protect our patients, our communities and ourselves from what has been inarguably called the most threatening epidemic of the 21st century? Here are several recommendations:

Get Involved

Policy is being made that impacts everything from the legal responsibilities of the prescriber to the development of clinical best practice. State and national organizations are eager to enlist physicians to serve at various levels. Your own Urgent Care College of Physicians (UCCOP) sent one of its board members, Dr. Sean McNeeley, to the Ohio Opiate Summit, one of the first state-supported initiatives to combat the opiate epidemic. Dr. McNeeley, on behalf of Ohio's urgent cares and UCCOP, participated in the development of the Ohio Emergency and Acute Care Facility Opioids and Other Controlled Substances (OOCS) Prescribing Guidelines. The guidelines were endorsed by UCCOP and represent an important step toward safe and appropriate prescribing of controlled substances in the acute care setting.

Among other things, the guidelines discourage prescriptions for chronic pain, replacement prescriptions and long-acting opioids. They encourage routine use of prescription drug databases, identity verification and urine drug screens to prevent doctor-shopping and diversion. The guidelines further encourage thorough communication with consultants and primary providers as well as detailed education for patients. Lastly, they recommend a maximum 3-day supply of controlled substances when prescribed in an acute care setting.

The full guidelines and other resources can be found at: *http://www.healthyohioprogram.org/ed/guidelines*. Opportunities for similar initiatives in other states abound, needing only passionate torch-bearers to lead them. As you will see from the Ohio guidelines, physician involvement makes all the difference.

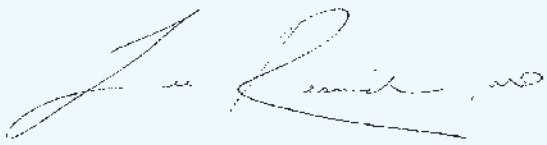
Establish Your Own Policies

Using the Ohio guidelines as a template, draft written policies for all your staff and physicians regarding managing and prescribing controlled substances. These policies are powerful tools for managing risk, protecting patient safety, and limiting legal exposure. By lending a clinical rationale and the support of physician societies, written policies and educational materials can serve to defuse tension and anger from potential drug seekers.

Follow The 4 Cs of Controlled Substance Policy

When developing policy around such a charged and contentious topic, remember the 4 Cs: Clear, Concise, Conspicuous, and Consistent. Make sure your policy is clearly communicated, both in writing and orally. Keep it brief and to the point. Post it for everyone to see. And apply it consistently throughout the practice.

Following these steps will make great strides toward practicing safe and effective medicine without losing customer loyalty or creating undue disturbances in your practice. Patients and staff alike deserve a thoughtful, sensible, and respectful approach to pain management. We have a long way to go, but simple steps now can pave the way for a future of "pain-free" prescribing for all. ■



Lee A. Resnick, MD
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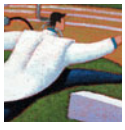
CLINICAL

9 Management of Acute Hyperglycemia in Urgent Care (Part 1)

Urgent message: Acute hyperglycemia is a common and potentially challenging problem in urgent care that deserves to be managed appropriately based on the best available evidence and suitable consideration of the associated complexities.

Anthony J. Pick, MD, CDE, David L. Pick, MD, FAAFP, and Lowell R. Schmeltz, MD

PRACTICE MANAGEMENT



19 Five Federal Employment Regulations Urgent Care Operators Need to Know (Part 1)

As employers and managers of people, urgent care operators are likely to encounter situations that invoke federal labor laws.

Alan A. Ayers, MBA, MAcc

CASE REPORT

25 High-Risk Conditions Presenting as Back Pain (Part 4)

Urgent message: Back pain with incontinence and focal neurological changes are red flags for serious conditions.

Erica Marshburn, BS, BA, and John Shufeldt, MD, JD, MBA, FACEP

CORRECTION

The article "The Role of Urgent Care Centers in Regional Acute Coronary Syndrome Care" in the June 2012 issue reflected incorrect affiliation information for Lee Resnick, MD. Through the course of the study period, Dr. Resnick was Assistant Clinical Professor in the Department of Family Medicine at Case Western Reserve University School of Medicine and the Medical Director of Urgent Care for University Hospitals Health System in Cleveland, Ohio. At the time of publication, he is Chief Medical Officer and Chief Operating Officer of WellStreet Urgent Care in Atlanta, Georgia, and President, Institute of Urgent Care Medicine and Assistant Clinical Professor, Case Western Reserve University Department of Family Medicine. We apologize for the error.

IN THE NEXT ISSUE OF *JUCM*

In the urgent care setting, acute hyperglycemia (above 400 mg/dL) is common. In part 2 of our series on the condition, in next month's cover story, we discuss guidelines for diabetes, including new use of glycohemoglobin and causes of Type 1 and Type 2 diabetes. Our authors also review the role of oral agents for diabetes in urgent care and potential side effects associated with newer medications, such as DDP 4 inhibitors, GLP1 analogs, and pioglitazone.

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Mission Statement

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 healthcare marketplace. As the Official Publication of the Urgent Care Association of America, *JUCM* seeks to provide a forum for the exchange of ideas and to expand on the core competencies of urgent care medicine as they apply to physicians, physician assistants, and nurse practitioners.

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Diabetes mellitus affects nearly 26 million people in the United States and nearly 7 million of them are undiagnosed. Not surprisingly, hyperglycemia is a common presenting condition at urgent care centers and it's also the subject of this month's cover story. As authors Anthony J. Pick, MD, CDE, David L. Pick, MD, FAAP, and Lowell R. Schmeltz, MD, underscore, an urgent care setting represents unique challenges for such a condition, in that most patients are discharged home and care is designed to be problem-focused and episodic, rather than focused on continuity. Their article reviews the literature on management of acute hyperglycemia in urgent care and offers a rational algorithm-based approach to it.

Dr. Anthony J. Pick is assistant professor of endocrinology, medicine, clinical, Feinberg School of Medicine, Northwestern University, Chicago, Illinois. Dr. David L. Pick is founding member of the Urgent Care College of Physicians, founding board. Dr. Lowell R. Schmeltz is assistant professor at Oakland University William Beaumont School of Medicine, Associated Endocrinologists, PC and Endocrine Hospital Consultants, PC, and Chief of Endocrinology, Detroit Medical Center-Huron Valley-Sinai Hospital, Detroit, Michigan.


In this month's case report, Erica Marshburn, BS, BA, and John Shufeldt, MD, JD, MBA, FACEP continue their series on back pain diagnostics with the case of a 60-year-old male who presents with a long history of low back pain and increasing severe low back pain and urinary incontinence. As this account underscores, neurologic complaints coupled with low back pain is a combination that could signal a serious condition.

Ms. Marshburn is an independent business consultant and the principal of Medical Business Technologies in Scottsdale, Arizona. Dr. Schufeldt is principal of Shufeldt Consulting and a member of the editorial board of *JUCM*.

In the first of a two-part practice management series, author Alan A. Ayers, MBA, MAcc presents a must-read article on federal labor laws with which urgent care operators—as employers and managers of people—need to be aware. This installment covers antidiscrimination laws and the Fair Labor Standards Act. Part 2, in the September issue, will cover the Uniformed Services Employment and Re-employment Rights Act, the Family Medical Leave Act, and the National Labor Relations Act.

Mr. Ayers is Vice President, Concentra Urgent Care and Content Advisor, Urgent Care Association of America. He is also the Associate Editor, Practice Management for *JUCM*. ■

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Exciting Times

LOU ELLEN HORWITZ, MA

My very first message in this column back in October 2006 started with "It is an exciting time to be in urgent care!" Almost 6 years later, that statement is just as true.

That inaugural column was focused on what a busy year it had already been, and what was coming soon including our toll-free number, a new website, new benchmarking survey, and new members-only area. In addition, both UCAOA and our industry are still "ever-growing and ever-changing" just as we were then. It is STILL an exciting time to be in urgent care – and that's a very good thing!

As you know, for the past year or so we've been working toward the launch of several major initiatives that are now "out of the barn": the new "unlimited" membership structure, the nationwide industry awareness campaign, and the 2012 Benchmarking Survey. In that year we also helped launch the Urgent Care College of Physicians and the Urgent Care Foundation.

So, even though in many ways we are the same, dynamic organization we were in 2006, a lot has happened since then!

Also during the past year, we've been taking a look at our organizational identity and we realized a few things. First, we are not just made up of physician members as the caduceus in our logo would indicate. We're absolutely medical, but UCAOA is made up of other clinicians too, plus thousands of non-clinical administrative professionals. Our identity needs to reflect that it takes a lot of interconnected individuals – both clinical and administrative — to deliver urgent care. Second, we're not just in America anymore. We have members in several other countries, and our current identity (based on the American flag) was *really* tied to the USA.

The tipper for us was that we wanted our identity to reflect the organization we have become, and the organization we will be in the future. We wanted something that was really different than the typical medical association logo (because urgent care is *NOT* a typical medical practice!) that would stand out in a crowd – but still be tied to medicine, urgency, and the links that we all share.

So! After months of design crunching and soul searching and opinion gathering and arguments and revisions and discussions and votes — we would like to introduce you to our new logo that you'll start to see rolling out this month.

Urgent Care Association of America

Here's what we want you to "see" when you look at it:

- It's in the shape of a cross – sticking with our medical "roots"
- It's made up of a linking "u" (on the bottom), "c" (on the left side) and "a" (on the top) for **U**rgent **C**are **A**ssociation
- The bright colors not only stand out, but they tie in with the "condition orange" that equals urgent but not emergency care

Over the next month, you'll start seeing the website change (we're doing a complete redesign this summer — making it MUCH easier for you to find what you are looking for), and seeing it on all our materials. We'll be making it available electronically too, and via new clinic stickers for members. We hope you like it and agree that it's a more updated reflection of who UCAOA has become.

And with that...adieu.

It's a little weird to be announcing our new logo and doing my farewell column in the same issue, but in many ways it's also fitting.

My history with UCAOA started in April 2006 with a meeting at the Orlando Airport Hyatt, where I first met Becky Burress, Dan Konow and Bill Meadows to interview for the Executive Director position. Like UCAOA, I've experienced a lot of

Lou Ellen Horwitz is Executive Director of the Urgent Care Association of America. She may be contacted at *lhorwitz@ucaoa.org*.

I am so proud of our organization and all that it's accomplished — and all that it will accomplish in the years to come.

changes since that first fateful meeting.

100% of those changes are attributable to those of you reading this column. From members, to past and current Directors, to vendors and partners, to our fantastic staff, my UCAOA experience has been the sum of my interactions with you. I've been educated, entertained, tested, challenged, delighted, surprised, and overwhelmed with the talent and generosity of spirit that I've encountered in this role. I never ceased to be amazed by the degree of inquisitiveness and demand for excellence that's coupled with a very human understanding which all of you have brought to our relationships – and your relationships with UCAOA.

While it was time for a change for me, I am so proud of our organization and all that it's accomplished — and all that it **will** accomplish in the years to come. I am humbled to have been able to be a part of it, and send love out to all of you who have helped me along in my journey to this place. It will be strange not to be sitting in this chair anymore, but know that I will remain a strong supporter of UCAOA from my new desk, and rest assured that the organization's foundation is a secure one and that you are in the best of hands for an exciting future. I can't wait to watch it continue to unfold.

Speaking of, I better go. I need to go turn in my membership application.

All best wishes. ■

Now Online in *JUCM*

Social Media Primer for Urgent Care Providers

Use of social media is fast becoming one of the most vital tools in patient decision-making about providers. Urgent care providers without a social media presence may potentially be losing patients, but how do you launch an effective social media marketing campaign? This month's *JUCM* web-exclusive article—based on a popular session at the recent UCAOA conference—explores the evolving social media landscape and gives urgent care providers the information and tools they need to start their own effective social media campaigns. Learn the rules of the Internet road for blogs, Facebook, Twitter, and other social media outlets by visiting *http://jucm.com/read/casereport.php?casereport=31*, online only.

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Management of Acute Hyperglycemia in Urgent Care (Part 1)

Urgent message: Acute hyperglycemia is a common and potentially challenging problem in urgent care that deserves to be managed appropriately based on the best available evidence and suitable consideration of the associated complexities.

ANTHONY J. PICK, MD, CDE, DAVID L. PICK, MD, FAAFP, and LOWELL R. SCHMELTZ, MD

Hyperglycemia is common in acute care settings such as emergency rooms (ERs) or urgent care centers. Stress-induced hyperglycemia can result from an acute process, such as infection, pain, trauma, or vascular accident, or can be associated with pre-existing diabetes mellitus (DM) or previously unknown DM (new onset or undiagnosed). DM affects 25.8 million people in the United States, more than 7 million of whom are undiagnosed.[1]

The observed incidence of DM in hospitalized patients ranges from 32% to 38%, including more than 40% of patients admitted with acute coronary syndrome or congestive heart failure.[2] Incidence of hyperglycemia in hospitalized patients without a history of DM is estimated to be 33% on the general medical/surgical ward and as high as 80% in patients in intensive care units (ICUs).[3] Stress hyperglycemia (in nondiabetic patients) historically was felt to be physiologic and part of the natural course of acute illness—not treated unless glucose levels exceeded 200 mg/dL or a patient was symptomatic. We now know that stress hyperglycemia, left untreated, has been associated with longer hospital stays, higher rates of ICU admission, greater need for rehabilitation services at time of discharge, and higher mortality rates.[4]

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The link between hyperglycemia and adverse outcomes is multifactorial. Elevated blood glucose (BG) concentrations produce a proinflammatory cytokine predominance, leading to a multitude of downstream effects, including capillary basement membrane thickening, impaired phagocytosis and immunity, oxidative stress, abnormal lipid metabolism, decreased vascular contractility, increased platelet adhesiveness, increased concentrations of coagulation factors, and increased C-reactive protein levels.[5] Contributing factors to hyperglycemia include elevations in stress-related hormones (growth hormone, catecholamines, cortisol, glucagon), pharmacologic agents, and glucocorticoid therapy.[6,7]

With the increased use of urgent care centers rather than ERs or routine visits to a primary care physician for various ailments, hyperglycemia is commonly encountered in both the diabetic and non-diabetic populations. In a recent study at an inner-city hospital in Detroit, HbA1c levels were checked on all patients who presented to the ER for any reason. In the non-diabetic population of 5,372 individuals, 7% had an elevated HbA1c of 6.5% indicating a new diagnosis of diabetes.

The authors are not aware of any guidelines specific to hyperglycemia management in urgent care, based on a Medline search using the MeSH terms (Diabetes or hyperglycemia and Urgent Care.) This article is based on extrapolation of the most relevant literature derived from guidelines applicable to the emergency room, outpatient, perioperative, inpatient, and intensive care settings.[8-18] The Endocrine Society recently published a Clinical Practice Guideline for management of hyperglycemia in hospitalized patients in the non-critical care setting.[3] A detailed review of these issues is beyond the scope of this article.

Unique challenges in the urgent care arena include the high likelihood that most patients will be discharged home and that care is designed to be problem-focused, episodic and delivered without continuity of care, even in the event of a return visit to the same facility. Additional challenges are that many patients lack health insurance and may not have an identifiable primary care physician.

When to Check Glucose Levels

For all patients with a history of DM, it is logical and reasonable to check aBG level to detect significant hypoglycemia or hyperglycemia. In diabetic patients who provide a history of having stopped their prescribed DM medications for beyond a few days, states of metabolic decompensation, such as diabetic ketoacidosis and hyperosmolar non-ketotic syndrome, should be identified if present. Random BG levels are also appropriate if the medical history raises a suspicion of new-onset or undiagnosed DM (classic symptoms such as polyuria, polydipsia, rapid weight loss, blurred vision, suspicious infections (significant skin yeast infections, abscess, anaerobic infections, foot infections, hidradenitis suppuritiva), and patients present with severe illness (increased likelihood of at least stress-induced hyperglycemia and may be a marker of worse outcomes).

As noted above, DM is common. In U.S. adults over the age of 65, 26.9% of the population has DM—more than 1 in 4 individuals. DM is often undiagnosed and has serious long-term complications, so it is reasonable to consider near universal BG testing in adults. The Endocrine Society recommends universal screening with a BG level or HbA1C measurement for all adults admitted to a hospital to help differentiate between long-term or relatively new-onset hyperglycemia. According to The American Diabetes Association, an HbA1c level (obtained from a reference laboratory) 6.5% indicates a diagnosis of DM.[19]

In patients with symptoms suggestive of hypoglycemia (mental status changes, sympathetic discharge symptoms such as diaphoresis, tremor, palpitations and/or tachycardia.), it is also imperative to check a BG level. BG monitoring every 1 to 4 hours may be required for patients with prolonged stays in urgent care facilities who are on medications with risk of causing hypoglycemia, such as insulin or sulfonylurea. Risk factors for severe hypoglycemia include a history of Type 1 DM (more insulin sensitive), frequent or recent severe hypoglycemia, hypoglycemia unawareness, underlying renal and liver disease, and recent alcohol intake or misuse. If significant hypoglycemia is detected (<70 mg/dL), it should be promptly corrected (usually with administration of 15 g of a rapidly available oral carbohydrate) and steps taken to avoid recurrent hypoglycemia prior to discharge. Severe hypoglycemia (glucose levels <40 mg/dL and/or with mental status changes and/or myocardial or cerebral ischemic symptoms) requires urgent management. The authors recommend that each facility have a protocol in place for rapid detection, treatment, and secondary prevention of severe hypoglycemia, including intravenous (IV) dextrose and/or glucagon (which can be given subcutaneously (SQ), intramuscularly or IV).

On the contrary, one could argue that BG levels should NOT be checked routinely in urgent care patients who do not present with a glucose-related complaint. Medical reasons to consider not checking a BG level in patients with pre-existing DM would include clinical

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futility and associated unnecessary expense. Patients in this category include those presenting with a minor problem (such as skin laceration, minor trauma) who report good home glucose control with frequent BG monitoring, regular and/or recent check of HbA1c levels, no signs or symptoms to suggest acute hypoglycemia or hyperglycemia (polyuria, polydipsia, blurred vision, tachypnea, orthostatic changes in pulse and/or blood pressure), and no evidence of DM-related acute complications. The reason to not monitor in this context is that marked hyperglycemia (or hypoglycemia) treatment is unlikely to be needed or helpful. It may also be reasonable to not check a BG level if insulin will not be provided by the urgent care facility regardless of the glucose result, if the BG level is unlikely to be in a dangerous range. Another factor is patient waiting time. If insulin is given, a patient is likely to be in the urgent care center for 2 to 3 hours or longer. Patients may need to be involved in the deciding whether to check a BG level and/or whether to give insulin if marked hyperglycemia is detected (>400 mg/dL).

Medico-legally an argument can be made for not checking a BG level in patients with preexisting DM so as to avoid the risk of the urgent care facility becoming directly responsible for glucose-related issues in the event of detection of marked hyperglycemia that could be transient or preexisting. However, the facility may be at increased risk legally from failing to detect or exclude hyperglycemia in the urgent care setting. Further, this risk can be avoided by documenting that advice has been given to patients to follow up with their responsible physician in a reasonably short period of time. We recommend that patients who do not have an established provider be given by the urgent care center a list of local facilities that can provide suitable follow up. Referrals to free health clinics, social work resources, or other suitable resources and facilities can be made to patients who do not have health insurance. Documentation of the need for follow up and a reasonable effort to provide applicable resources should be done for patients who are from a more distant community or out of state.

We propose checking BG levels in all patients with a history of DM, especially those on pharmacologic therapy, because of the minimal downside to the practice in individuals with DM in whom the check confirms a reasonable BG level confirmed, the possibility of detecting significant hypoglycemia or hyperglycemia with reasonable frequency, and the weakness of the legal argument for not checking BG levels. If marked hyperglycemia (>400 mg/dL) is detected, even if not treated acutely, this should prompt a chemistry panel to evaluate for metabolic decompensation and a recommendation for the patient to follow up with his or her physician. We also recommend checking BG levels in any patient in whom hyperglycemia is suspected (major stress, symptoms of hyperglycemia, history of poorly controlled DM, possible new-onset or newly detected DM) or hypoglycemia. If hyperglycemia is detected, then a decision can be made about whether treatment is required.

When and How to Treat Glucose Elevation

What level of glucose elevation in the urgent care setting, should be treated, why, and to what level? Currently no evidence-based literature exists to determine what level of glucose elevation warrants therapy. As noted above, a normal fasting BG level is less than 100 mg/dL in a non-diabetic individual. The renal glucose threshold is in the range of 200-250 mg/dL. Above this BG level there can be polyuria followed by osmotic shifts and electrolyte disturbances as BG levels rise further.

BG levels at or above 600 mg/dL are markedly abnormal, often associated with dehydration and metabolic emergencies, and often require electrolyte measurement, IV hydration, insulin administration, more than brief observation and possibly require hospital admission. These patients require referral to an ER for further management and likely hospital admission.

BG levels above 400 mg/dL are also significantly abnormal and the authors propose prompt consideration of short-term treatment, regardless of whether the elevation is due to stress hyperglycemia, underlying DM or new-onset or newly diagnosed DM. One option would be to provide IV hydration without insulin because that may significantly lower BG and there should be no risk of inducing hypoglycemia. Signs of dehydration may be present, such as orthostatic fall in blood pressure and tachycardia. Use of rapid-acting insulin correction at a dose of 0.1-0.15 units/kg given SQ should be sufficient to return the glucose to a more acceptable range.

Individual facilities can consider treatment for BG levels between 200 and399 mg/dL and certainly for BG levels above 300-350 mg/dL ,depending on the individual circumstances (known history of DM, type of DM [insulin-deficient, type 1]); type of DM therapy being used (insulin vs. oral agents); reason for presentation, and so on. Insulin-treated patients will often use rapid-acting insulin to treat hyperglycemia, so it is logical to provide similar therapy while in an urgent care center.

One potential downside to treatment of acute hyper-

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glycemia with insulin is the possibility of causing hypoglycemia 2 to 4 hours after the dose is given (duration of action of rapid-acting insulin is 4 hours). This risk should be minimized by using a suitable protocol with BG monitoring (using meters appropriate for the urgent care setting). The authors propose aiming for a glucose target between 120 and 180 mg/dL. There is currently no evidence-based literature to guide the goal of treatment, once undertaken. However, the authors proposed this target range to minimize the risk of hypoglycemia (<70 mg/dL) while being clinically effective. Another potential side effect of treatment may be the intracellular shift of potassium from insulin and resultant hypokalemia. It may be prudent to check electrolyte levels in patients treated with insulin prior to discharge.

In clinically stable patients (no abnormalities in vital signs, no underlying known insulin deficiency) with marked hyperglycemia, it is reasonable to consider NOT providing insulin therapy, thereby avoiding time delays and short-term clinical futility. Interaction with the health care professional is an opportunity to recommend improving DM behaviors (avoidance of excess simple carbohydrates and calories) and adherence to pharmacologic therapy to decrease the future risk of diabetic microvascular complications, heart attack, or stroke. Patients who have symptomatic improvement after treatment for hyperglycemia with hydration and/or insulin may be motivated to improve glucose control at home and intervention may have been worthwhile. We, therefore, propose involving patients in the decision whether to provide insulin and/or IV hydration.

Glucose Management in Special Cases

Patients with known insulin-treated or -dependent DM (type 1 DM, post pancreatectomy, chronic pancreatitis, cystic fibrosis and other causes) are a special case. Exclusion of diabetic ketoacidosis (DKA) can be a consideration regardless of BG level. Ketoacidosis can be detected clinically (fruity odor on the breath, Kussmauls's respiration) with serum ketones (betahydroxybutyrate is preferred) and a basic chemistry panel (metabolic acidosis will be present). Treatment of diabetic ketoacidosis is beyond the scope of this article and often requires hospital admission, unless it is mild. In some circumstances, it may be reasonable to treat adults with mild to moderate DKA in an urgent care center. We recommend a low threshold for hospital admission in children with DKA with known Type 1 DM, unless the condition is mild, because they are at increased risk of cerebral edema Providers should inquire about the timing of last insulin administration and dose and type of insulin being used and that information should be factored in to treatment decisions. Patients with insulin infusion pumps should be well-informed about glucose management and should participate in insulin treatment decisions acutely (unless there are reasons to suggest impaired DM self-care decision-making capacity.) In patients with insulin pumps there may be problems with the infusion tubing or insertion sites that led to hyperglycemia and it may be preferable to use SQ insulin in the urgent care setting as the default. The authors suggest that BG levels should be checked hourly or at a minimum, every 2 hours, in any patient given insulin in an urgent care center. Patients with Type 1 DM who have taken basal insulin within 24 hours, those using an insulin pump or who have recently taken a bolus of rapidly acting insulin likely will require frequent blood glucose monitoring, too.

If insulin is given, then a BG level should be checked prior to discharge to minimize risk of hypoglycemia shortly after discharge, especially in patients who will be driving their own vehicles. Patients treated with insulin may have knowledge of an adjustment algorithm for management of hyperglycemia. In insulin-sensitive patients, BG levels may fall 100 mg/dL (or more) with each 1 unit of rapid-acting insulin used. For example 2 extra units of rapid-acting insulin would be predicted to lower the glucose from 350 mg/dL to 150 mg/dL. At the other extreme, in an insulin-resistant patient, BG levels may fall 5 to 10 mg/dL per unit or rapid-acting insulin can be used. Higher insulin doses may be needed with marked hyperglycemia due to underlying glucose toxicity. Assuming a drop of 10 mg/dL per unit of rapid-acting insulin, that would predict the need for a bolus of 20 units of rapid-acting insulin to lower a BG level of 350 to 150 mg/dL.

Goals of therapy in an insulin-treated patient are exclusion of a metabolic emergency; detection, treatment or prevention of marked hyperglycemia or hypoglycemia; and possibly detection of patients with poor control to encourage suitable follow up after discharge. If the "correction factor" for glucose lowering is known to the patient, an urgent care provider can use that correction factor as a reference point for dosing. If an urgent care provider is uncertain about the degree of a patient's insulin resistance, a correction dose of 0.1 to 0.15 units/kg of rapid-acting insulin given SQ should be sufficient to return the glucose to a more acceptable range.

Management of children is another special case. Modest stress-induced hyperglycemia is common in pediatric

ERs but BG levels above 300 mg/dL are considered unusual and may be a marker of severity of illness and poorer outcome.[20] Underlying DM may not be present in the majority of cases. However, marked hyperglycemia in a child could reflect underlying type 1 DM. Also, with the current epidemic of obesity, children with new-onset DM may have underlying obesity and insulin resistance-related DM (Type 2 DM). The authors recommend a very low threshold for hospital admission for children with marked hyperglycemia. On the other hand, children with known type 1 DM (or type 2 DM) with good support and/or self-management skills and suitable short-term follow up may not require hospital admission simply for hyperglycemia, as long as diabetic ketoacidosis, a metabolic urgency or dehydration is not present.

Pregnant patients are another special category of patients who present to urgent care with hyperglycemia. Their hyperglycemia may be stress-induced, underlying pre-existing DM (type 1, type 2 or other) or gestational. Detailed information on diagnosis and management of hyperglycemia in the context of pregnancy is beyond the scope of this article. However, insulin remain the medication of choice if acute treatment is needed. It would be prudent to have a low threshold for hospital admission, in general, in pregnant patients.

Acute Management of Hyperglycemia

How should elevated blood glucose levels be treated acutely if treatment is provided? Insulin is the logical choice for acute management. Rapid-acting insulin analogs (glulisine [Apidra, Sanofi-Aventis U.S. LLC]), insulin aspart (NovoLog, Novo Nordisk Pharmaceuticals Inc.) and insulin lispro (Humalog, Eli Lilly and Co.) have superior insulin kinetics to regular insulin. Regular insulin, when given SQ, requires at least 30 minutes for onset of action, therefore, use of rapid-acting analogs may be preferable. The available rapid-acting insulin agents are sufficiently similar that all are reasonable choices. Each facility will presumably decide based on economic or other practical considerations (**Table 1**) Use of long-acting insulin such as NPH, detemir (Levimir, Novo Nordisk), glargine (Lantus, Sanofi) will likely be done less often and selectively. Long-acting insulin preparations are used by patients with type 1 and insulin-deficient type 2 DM to provide a low level of background insulin to suppress hepatic gluconeogenesis and prevent hyperglycemia due to excess endogenous glucose production. These insulin preparations will likely have a limited role in management of acute hyperglycemia but may be needed in cases of newly diagnosed DM where glucose toxicity is present.

A suggested protocol for marked hyperglycemia (above 400 mg/dL) in patients without known insulin-deficient DM such as type 2 DM is to provide a SQ bolus of rapid-acting insulin, starting with 0.1 to 0.15 units/kg. The precise dose selected can be modified based on the possible predicted degree of underlying insulin sensitivity or possibly based on a history of the patient's insulin doses or

Table 1. Pharmacokinetics of SQ insulin preparations*

Insulin	Onset	Peak	Duration
Rapid-acting analogs	5-15 min	1-2 hours	4-6 hours
Regular	30-60 min	2-3 hours	6-10 hours
NPH	2-4 hours	4-10 hours	12-18 hours
Glargine	2 hours	No peak	20-24 hours
Detemir	2 hours	No peak	12-24 hours

*Renal failure leads to prolonged insulin action and altered kinetics

Premixed insulins available include 70/30, Humalog 75/25 and Novolog 70/30 mix, Humalog 50/50. Specialized highly concentrated insulin preparations also are available, such as Lilly U-500.

response to insulin, if he or she is already on an insulin regimen. Factors requiring consideration of lower insulin dosing include low body weight, known insulin sensitivity, and underlying renal and liver disease. Factors suggesting a need for higher insulin dosing than the starting protocol would be high body mass index (BMI > 35), features of insulin resistance (acanthosis nigricans on skin examination, known PCOS, steroid treatment, significant stress). A follow-up BG level should be done 2 to 4 hours after the bolus. If needed, the insulin can be rebolused, with or without dose adjustment based on the response. If repeated insulin boluses are used, insulin need may be decreased as glucose toxicity is reversed and there may be "stacking" or the residual effects of the prior insulin administrations, depending on the dosing insulin and individual insulin clearance. An urgent care provider should always be encouraged to add his or her own clinical judgment and experience to the insulin protocol being used. We recommend a treatment goal of 150 mg/dL (120-180 mg/dL).

BG levels in excess of 600 mg/dL will likely require a higher initial insulin dose. We therefore suggest an initial insulin bolus of 0.3 u/kg. There should also be consideration for IV hydration, exclusion of a metabolic urgency, and possibly hospitalization. BG levels should be rechecked 1 to 2 hours after the insulin bolus is provided. The rate of fall of BG can be factored into the decision about whether a repeat insulin bolus (or boluses) is needed and how much to provide. IV hydration is required for all patients with a glucose levels >600 with symptoms, signs or laboratory features of significant dehydration. For more marked hyperglycemia and if IV access is being used, IV boluses of insulin (regular insulin or rapid-acting analog insulin) can be considered or used. IV insulin has rapid onset of action and shorter total duration versus SQ rapid-acting and certainly versus SQ regular insulin.

Management of acute hyperglycemia emergencies is beyond the scope of this article.[21] However, it is very important in the urgent care arena to recognize patients with hyperglycemic metabolic emergencies, that is, DKA and non-ketotic hyperosmolar syndrome. Simple clinical signs can be helpful.[22] Patients at low risk of an acute glucose metabolism disturbance will have BG levels below 400 mg/dL, systolic blood pressure greater than100, pulse less than 90/minute and respiratory rate less than 20/minute. Patients with BG levels above 400 mg/dL or systolic blood pressure less than 100 may be at higher risk of DKA. Tachycardia may be present due to dehydration or associated conditions (infection, electrolyte disturbance). Tachypnea or Kussmaul's respiration (deep and labored breathing due to underlying metabolic acidosis and a compensatory respiratory alkalosis drive) may reflect underlying acidosis. Significant changes in orthostatic pulse and/or blood pressure may provide evidence of volume depletion. Ketones can be detected by their characteristic odor on the breath. Patients with more marked hyperglycemia may have potassium shifts with insulin therapy (and may have underlying potassium depletion). We therefore recommend checking a basic chemistry panel that includes sodium, potassium, urea and creatinine in all patients with marked hyperglycemia (>400 mg/dL), especially those taking diuretics, patients with evidence of volume depletion and those with a history of renal dysfunction. A urinalysis may also be helpful because a high urine specific gravity may indicate volume depletion and strongly positive urine ketones may indicate the presence of DKA.

Patients should be educated that the use of insulin acutely does not necessarily imply that insulin will be required long term or even that DM is present (in the event of stress-induced hyperglycemia). However, any patient with blood glucose elevations sufficiently elevated to require acute treatment will require suitable short-term follow up after discharge. In patients likely to have stress-induced hyperglycemia, short-term follow up by the urgent care facility or the primary care physician may be a consideration. The goal is to confirm that the patient's hyperglycemia has resolved, and if not, to provide information to allow suitable follow up of the newly diagnosed DM. An HbA1c level may be helpful in this regard.

Consideration can be given to providing a limited prescription (on the order of 7 days) to patients who have run out of their oral DM medications and/or insulin, were previously stable on these agents, have no contraindications to the previously prescribed therapy, and have ongoing access to follow up with the prescribing facility (or follow up elsewhere). These patients should understand that they need to promptly follow up with their DM care providers to obtain an ongoing supply of medications under supervision and the decision to prescribe can be individualized.

When would an urgent care provider initiate DM therapy? One approach is to never initiate DM therapy because there will be limited or no opportunity to provide suitable follow up. However, assuming that a patient does not fulfill criteria for hospital admission and there is clear evidence of new onset or newly diagnosed type 2 DM, then initiating treatment with clear documentation of a plan for suitable short-term follow up is a consideration. The authors suggest avoiding initiation of insulin therapy in the urgent care setting. If insulin is likely to be needed, then a patient likely should be hospitalized. If a patient who likely needs insulin treatment refuses hospital admission, then prescribing insulin without a mechanism for follow up with the prescribing provider or facility would likely present an unwarranted medico-legal risk.

Metformin is considered the first-line agent for type 2 DM per American Diabetes Association and other guidelines.[23] This agent has effective glucose-lowering properties, an intrinsically low risk of hypoglycemia, is available generically and cost effectively and has an excellent overall safety profile. Contraindications include risk of lactic acidosis, such as in patients with renal insufficiency, liver disease, advanced heart failure, alcohol abuse and exposure within 48 hours to IV computed tomography contrast material. The most common side effect is gastrointestinal (GI) disturbance. GI side-effects can be limited by taking the medication with food and titrating the dose upward over time. The starting dose is 500 mg daily. The maximum effective dose is 2 g daily. We, therefore, suggest starting generic metformin or metformin extended release with 500 mg with dinner and deferring further management to the follow-up facility. A reasonable starting quantity would be sufficient for 1 week. Initiation of a sulfonylurea such as glipizide or glimepiride is also a consideration. The authors recommend avoiding use of glyburide because that agent may be associated with adverse cardiovascular outcomes and can cause prolonged hypoglycemia (especially in the elderly).

However, hypoglycemia can occur with sulfonylureas, therefore, patient education is required about detection and management of hypoglycemia. Other classes of non-insulin glucose-lowering agents such as DDP-4 inhibitors or TZD's (pioglitazone) are likely best not started in the urgent care setting because of cost, complexity, and side-effect issues.

Another consideration is whether an urgent care facility should provide a prescription for blood glucose monitoring (or even provide a meter sample and a short supply of testing strips, if available

to the facility). That decision can be individualized. However, the provision of testing supplies is usually best deferred to facilities that can provide longitudinal care.

Screening for Diabetes

Diabetes is common, often unrecognized and associated with important adverse outcomes. There is a growing literature on screening for diabetes or prediabetes in the acute care setting.[24-27] Urgent care facilities may be well suited to perform diabetes screening, provide basic diabetes education (such as suitable discharge handouts), and assist patients with suitable referrals for longitudinal care. Part 2 of this article will discuss screening for diabetes, including guidelines for estimated average glucose and the role of oral agents in urgent care.

Conclusion

Acute hyperglycemia (above 400 mg/dL) is a common problem in the urgent care setting. Providers need to place the level in the appropriate context (probable stress hyperglycemia, known type 2 DM, known insulin-treated or type 1 DM, known alternative cause of DM [steroids, post pancreatic surgery, chronic pancreatitis, etc.], probable new onset or undiagnosed DM (type 2, type 1 or other) or confirmed new-onset or newly diagnosed DM. The purpose of treatment is to reverse the marked hyperglycemia (potentially to prevent dehydration or electrolyte disturbance); identify patients at high risk for adverse outcomes (marked stress hyperglycemia, major co-morbid event (stroke, myocardial infarction, severe infection) and potentially identify high-risk patients with poorly controlled DM or new-onset DM who warrant arrangements for appropriate follow up.

Patients who are stable need to be involved in the decision about whether to treat hyperglycemia with IV hydration and/or insulin and the associated increased time likely to be spent in the facility. If treatment is initiated, we propose likely safe and user-friendly insulin-treatment algorithms (weight-based or based on predicted fall in BG per unit of rapid-acting insulin given Clear documentation of short-term follow-up plans after discharge is critical. The lack of specific evidence-based guidelines for management of acute hyperglycemia in the urgent care arena, specifically, suggests an important area for development of suitable studies and guidelines. ■

Conflicts of Interest: David L. Pick has no conflicts of interest to report. Anthony J. Pick is on the Speakers' Bureaus for Takeda (pioglitazone), Novo Nordisk (liraglutide, analog insulins) and Eli Lilly (linagliptin, analog insulins). Lowell R. Schmeltz is on the Speakers' Bureaus for Sanofi-Aventis, Merck, Eli-Lilly, and Boehringer Ingelheim.

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Five Federal Employment Regulations Urgent Care Operators Need to Know (Part 1)

Urgent message: As employers and managers of people, urgent care operators are likely to encounter situations that invoke federal labor laws.

ALAN A. AYERS, MBA, MAcc

Urgent care centers are subject to a multitude of federal employment regulations and failure to comply with any of them could result in civil litigation or criminal penalties. Laws prohibiting discrimination, regulating wages and hours, permitting leave for military service and family or personal health issues, and affecting collective bargaining are commonly misunderstood, and as a result, violated by urgent care operators. The best protections are detailed human resources policies and an operating culture of integrity and compliance. As a start, managers and supervisors should be educated on the basics. This article is the first of a two-part series that offers specific cases illustrating five of the most significant federal employment regulations. This installment covers anti-discrimination laws and the Fair Labor Standards Act; the Uniformed Services Employment and Re-employment Rights Act, the Family Medical Leave Act, and the National Labor Relations Act will be covered in the second installment.

Anti-Discrimination Laws

A variety of statutes regulated by the U.S. Equal Employment Opportunity Commission (EEOC) prohibit discrimination and retaliation on the basis of an employee's "protected" status. All job-related decisions must be made for legitimate business reasons and not on the basis of characteristics such as:

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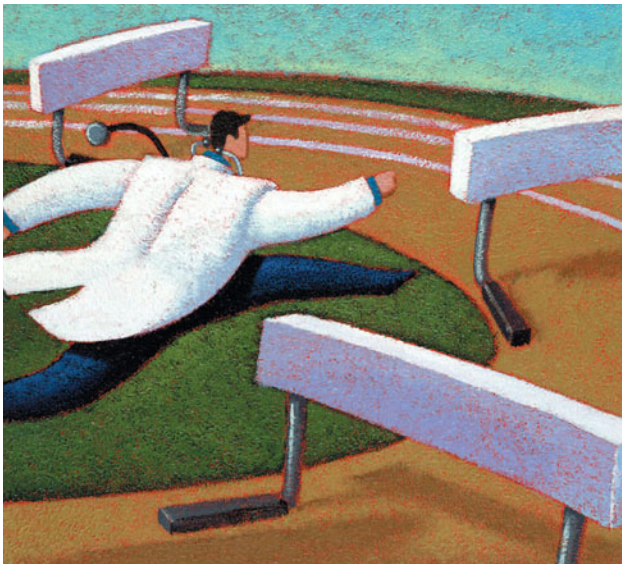

- Race
- Skin Color
- Sex
- Ethnicity
- Religion
- Age
- Military Status

Table 1 summarizes the major federal anti-discrimination statutes. If an urgent care operation is small—employing fewer than 15 people—most federal anti-discrimination laws will not apply. The one exception is the equal pay act, which applies to virtually all employers. The specific headcount limits are included

Table 1 Federal Anti-Discrimination Legislation

Federal EEO Legislation[2]	Minimum Number of Employees	Protected Class
Age Discrimination in Employment Act (ADEA)	Applies to companies with 20+ employees.	Individuals age 40 or over.
Americans with Disabilities Act (ADA)	15+ employees	Individual with a disability, history of disability, perceived disability, or relationship to someone with a disability. Disability is defined as "a condition that substantially limits major life activities."
Equal Pay Act (EPA)	No specific size requirement	Women should receive pay equal to men for "substantially equal" work. Pay includes benefits, allowances, bonuses and overtime.
Genetic Information and Nondiscrimination Act (GINA)	15+ employees	Genetic information; individual and family medical history.
Title VII[3] (15+ employees)	15+ employees	Race, color, religion, sex, or national origin (birthplace, ancestry, culture, or linguistic characteristics common to a specific ethnic group.)
Pregnancy Discrimination Act (PDA) (This Act is an amendment of Title VII)	15+ employees	Women experiencing pregnancy, childbirth, or a medical condition related to pregnancy or childbirth.

in **Table 1,**[1-3] but it's important to note that many states have anti-discrimination laws that apply to smaller businesses and extend the number and scope of "protected" classes beyond what's prescribed by federal law.

For example, nearly half the states and many major cities have laws prohibiting employment discrimination on the basis of sexual orientation. Some jurisdictions also specifically prohibit discrimination based on gender identity, while others protect such categories as marital status, political affiliation, and height and weight.[1] Employers are responsible for understanding the laws in their areas and developing policies that incorporate provisions from each applicable regulation that confers the greatest protection to employees.

Employers are responsible for ensuring that hiring processes don't adversely impact a protected group. Even large companies with extensive legal expertise are not immune from problematic processes that have a disparate effect on certain segments of the workforce. Consider a recent case against Pepsi.[4] The company conducted a routine background check of all applicants, but the screening did not just rule out applicants who had been convicted of a crime—it also excluded those who had been arrested but never convicted. This policy disparately affected African-Americans, although the EEOC did not accuse Pepsi of intentional discrimination. In January 2012, the company agreed to settle the claim for more than $3 million, plus training and job offers to affected applicants.

Bona fide occupational qualifications still do exist that allow hiring discrimination in some limited circumstances. For example, it would not be considered illegal discrimination for a hospital to hire only female technicians specifically for ob/gyn functions.[5]

Anti-discrimination legislation doesn't just impact hiring decisions, it also affects the treatment of current employees on the job. For example, under the Americans with Disabilities Act (ADA) an employee is entitled to ask for an accommodation to allow him or her to perform the essential functions of the job, despite a disability. Types of accommodation might include a physically modified workstation, restricted job responsibilities, or a flexible working schedule.[6] While an employer can refuse accommodations that would result in an undue hardship, factors such as cost alone will not necessarily constitute sufficient grounds to refuse.[7]

Remember that in many cases—particularly with a medical accommodation—the obligation is not necessarily to give the employee the specific accommodation he or she requests, but to provide an accommodation

Membership

- Learn about the urgent care industry
- Get direction on starting a new clinic
- Grow your existing clinic(s)
- Expand your clinical and practice management skills
- Connect with an ever-expanding peer network

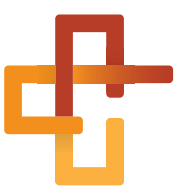

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Table 2 Fair Labor Standards Act Exemption Test

Exemption	Eligibility/Test
Administrative	Compensated more than $455/week, work directly related to the management or general business operations of the employer, exercises discretion and independent judgment on significant issues.
Computer	Compensated more than $455/week or $27.63 an hour; employed as a computer systems analyst, computer programmer, software engineer or other similarly skilled worker in the computer field; primary duty must consist of: systems analysis techniques and procedures, design, development, testing or modification of computer systems or programs.
Executive	Compensated more than $455/week; primary duty is managing the company, department or subdivision; must "customarily and regularly" direct the work of at least two full-time employees or their equivalent, and have the authority to hire or fire other employees, or strongly influence the decision.
Outside Sales	The employee's primary duty must be making sales, obtaining orders or contracts for services or facilities, and the employee must be customarily and regularly engaged away from the employer's place or places of business.
Professional	The employee must be compensated on a salary or fee basis (as defined in the regulations) at a rate not less than $455 per week; primary duty must be the performance of work requiring advanced knowledge, in a field of science or learning and acquired by prolonged intellectual instruction.

that meets the employee's needs. If a suitable accommodation exists that better meets the employer's operational needs, the employer may select this accommodation instead of the employee's preferred suggestion. For example, although an employee may prefer to have a flexible working schedule, the employer might prefer to redistribute the job duties, and assign the employee to tasks that are not limited by the disability.

Disability is not the only factor requiring accommodation in the workplace. The employer must also consider requests for religious accommodation. One such case involved an urgent care facility that informed a Muslim physician during her interview that the facility had a "no hats" policy, which would prohibit her hijab (religious head-covering). The applicant questioned the policy with the organization's human resources department, which confirmed that the interviewer was correct—religious accommodation for her hijab would not be granted. After adverse news coverage and pressure from Islamic organizations, the company issued an apology and promised to clarify the policy, stating that the applicant would be hired and accommodated.[8]

A leader's obligation is to recognize discrimination

It's not enough just to have a policy prohibiting discrimination. Managers must actively recognize discrimination and enforce anti-discrimination policies accordingly. This mandate was made particularly clear with a June, 2011 U.S. Supreme Court decision reversing certification of a class of approximately 1.5 million Walmart female employees claiming that Walmart engaged in sex discrimination by systematically denying its female employees promotions and raises.[9] In Dukes vs. Walmart, the Supreme Court specifically noted that Walmart had a written anti-discrimination policy that it enforced, including penalizing those who violated the policy. This practice was important evidence to contradict the claim that Walmart had a general policy, practice, and culture of discriminating against women. In light of this decision, employers should be sure to update—and enforce—their employment policies, which may prove critical in avoiding and defending legislation.

Fair Labor Standards Act (FLSA)

The Fair Labor Standards Act, known as FLSA, regulates the federal minimum wage and overtime requirements for non-exempt employees. The act also contains provisions for the employment of minors. While the Act regulates a variety of wage-and-hour related issues, state and local codes often contain more specific and detailed information that intersects with the FLSA regulations.

What the Fair Labor Standards Act DOES Regulate:

- Minimum wage of $7.25 per hour effective July 24, 2009.
- Overtime pay for non-exempt employees at a rate of not less than one and one-half times the regular rates of pay after 40 hours of work in a workweek.
- Reasonable break time and a place for an employee to express milk for her nursing child, for up to 1 year after

Fair Labor Standards Act: What Would You Do?

The following table describes some common scenarios that invoke FLSA's wage and hour regulations in urgent care settings. Read each scenario and determine how you might respond. The correct answer is provided.

Q. Jane works 1 hour of overtime without her manager's authorization. The center's policy states that overtime can only be worked with express advance authorization from the manager. Jane did not ask for permission, and the manager would not have granted it because other medical assistants were working. Can the center refuse to pay Jane for the time worked?

A. No. Under the FLSA, Jane is entitled to be paid for the time she worked, regardless of whether it was approved or not. If the time was in excess of 40 hours in the workweek, she is entitled to time and a half. However, the employer is entitled to discipline Jane for her violation of the policy.

Q. Jim has to stay 30 minutes late to deal with an urgent patient issue. Because of the economy, the urgent care center has restricted payment of overtime. Jim volunteers to make up the time by coming in 30 minutes later the next day. Is that allowed?

A. Yes. As long as the time is made up within the same workweek, an employee can adjust his or her hours to stay within a 40-hour workweek and not incur overtime charges. Note: In some jurisdictions, such as California, overtime is incurred for any time worked over 8 hours in a day.

Q. Marc, the 15-year-old son of one the center's nurses, is saving money to buy a car. His mother suggests to the owner that Marc help cut the lawn and trim the bushes using the owner's gas-powered lawnmower and electric clippers. Is that permissible?

A. No. The FLSA states that 14- and 15-year-olds cannot operate power-driven machinery other than certain office and food preparation machines[14].

Q. Blair, a medical receptionist, takes her lunch in the back and sorts the mail while she eats. Does she get paid for this time?

A. Yes. Because Blair is performing work, she is entitled to be compensated for the time.

Q. Blair, the medical receptionist, decides to eat lunch at her desk instead, while surfing the Internet. Does she get paid?

A. It depends. Assuming Blair is surfing the Internet for personal reasons and is not required to perform work duties during her lunch, the FLSA would not require her to be paid. However, if Blair is sitting at her desk because someone needs to provide cover for reception, or if she answers phones or assists patients during her break, she is entitled to be compensated. Because the line can be blurry between work and breaks—for example, just because a customer didn't happen to come in, doesn't necessarily mean the employee wasn't working reception—it would be good practice to make a clear distinction between lunch and breaks by requiring Blair to eat lunch in the break room.

the child's birth. The time is not compensated, assuming the employee is completely relieved from duty and would not ordinarily receive compensation for the break. A bathroom is not a permissible location.

- Youth employment activity restrictions and minimum wage.
- Employees must be paid for training, when the training is mandatory.

As with anti-discrimination laws, state laws may be more specific or prescribe greater requirements than the federal statutes. For instance, 16 states have a higher minimum wage than required by federal law.[10] Nevada, for example, has a statewide minimum wage of $8.00 per hour but employers who offer health insurance can pay the federal rate of $7.25. And while California has a statewide minimum wage of $8.00 per hour, the City of San Francisco sets the rate at $10.24. Throughout California, overtime must be paid for working more than 8 hours in a single day or more than 6 days in a single week—although federal law defines overtime as greater than 40 hours in a single week.[11]

What the Fair Labor Standards Act DOES NOT Regulate[12]:

- Leave time (vacation, sick pay, holidays, etc.)
- Mandated meal breaks or rest periods
- Double, triple or premium pay for weekends or holidays
- Salary increases or benefits
- Dismissal requirements or immediate payment of final wages to terminated employees

Remember that although the FLSA does not regulate the above items, state laws do typically control them. For example, the California labor code requires employers to give non-exempt workers an unpaid, uninterrupted 30-minute lunch break after 5 hours of work, provided that the workday is longer than 6 hours. In addition, California employees are entitled to a paid 10-minute rest break for every 3.5 hours worked. *Whenever state and federal laws differ—the employer must follow the regulation that most benefits the employee.*

Exempt and Non-exempt Employees

As the name suggests, "exempt" employees are those

who are exempted from the provisions of the FLSA. Several significant differences exist in the way employers treat exempt and non-exempt employees. Exempt employees are typically salaried and are not entitled to overtime pay. But an exempt employee must be paid for every day he/she works because partial-day deductions from an exempt employee's salary are not permitted except in specific circumstances, such as for unpaid time under the Family Medical Leave Act, to offset jury fees received by the employee or in the initial or terminal week of employment.[13]

The FLSA includes tests for several specific exemptions of broad classifications from the Act, as illustrated in **Table 2**.

FLSA standards are complex and go well beyond pay and scheduling and affect an urgent care center's staffing model, job descriptions, facility layout, and operating hours, among other factors. To test your knowledge of FLSA by reviewing the box on page 23 that lists wage and hour scenarios commonly encountered by urgent care operators.■

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Case Report

High-Risk Conditions Presenting as Back Pain (Part 4)

Urgent message: Back pain with incontinence and focal neurological changes are red flags for serious conditions.

ERICA MARSHBURN, BS, BA, and JOHN SHUFELDT, MD, JD, MBA, FACEP

Overview

Low back pain is a common presentation in the urgent care setting and it is important for providers to be aware of signs and symptoms that could indicate a more serious condition than nonspecific muscular pain. Be sure to make a thorough evaluation of your patients and pay attention to any complaints that might suggest a more urgent disorder.

Case Presentation

A 60-year-old male with a long history of low back pain presents with increasing, severe low back pain and urinary incontinence. He denies radicular symptoms or a history of trauma and does not complain of a fever, chills, weight loss or known nidus for infection. He also complains that his groin area feels numb.

Pertinent Physical Exam

Vital Signs: P: 120; RR: 20; BP: 165/110; T: 38.3
Gait: wide-based, slow, unsteady
Back: Tenderness to percussion over L4-, S1
Neurological: 3+/5 bilateral LE, urinary incontinence
Decreased tone on rectal exam
In summary: weakness, sensory abnormalities, and autonomic dysfunction
Also notable: high pulse, respiratory rate, blood pressure, and temperature

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Labs/Imaging

The next step would be to order imaging. Magnetic resonance imaging (MRI) is the modality of choice, but computed tomography with myelography is comparable, although riskier, because it is more invasive. Radiographs are of limited use, but have the potential to point you in the right direction, as least as it relates to level of further imaging. Electrophysiology—specifically electromyography/nerve conduction studies—can be useful only with suspected radiculopathy to identify the affected nerve root.

Laboratory studies should include examination of cerebrospinal fluid if signs of meningitis are also pres-

Figure 1.

ent. Based on findings from the history and physical examination, lab work could include basic blood tests, sedimentation rate, fasting blood sugar, chemistries, and syphilis and Lyme serologies to help define associated pathologies or possible causes. Urodynamic studies can be useful in evaluating the cause and degree of sphincter dysfunction.

The saggital sequence MRI in Figure 1 shows a posterior herniating disc indenting the dura and neural canal by about 5 mm. How well a patient tolerates this amount of encroachment depends on the presence or absence of any pre-existing pathology, which potentially may have caused a narrowed neural canal BEFORE the disc herniation.

Diagnosis

Cauda Equina Syndrome.

Important physical exam findings:

- Low back pain
- Urinary retention with overflow incontinence
- Fecal incontinence and decreased rectal tone
- Saddle and perineal hypoesthesia or anesthesia
- Sciatica and leg weakness
- Lower extremity weakness and sensory deficits
- Absent or diminished muscle stretch reflexes, including Babinski and bulbocavernosus reflexes

In cases of cauda equina syndrome, pain is often localized to the lower back and tenderness to palpation or percussion may be present. Leg pain, or pain radiating to the legs, is a typical characteristic; radicular pain and sensory loss are also common presentations. Lesions can involve the conus, epiconus, and cauda equina, causing overlapping symptomology. The presentation is somewhat similar to conus and epiconus lesions, but those conditions are associated with more severe involvement of the bowel, urinary bladder and sexual dysfunction.

The patient's symptoms often present gradually and unilaterally, and ankle and knee jerk reflexes are affected. Numbness most often is localized to the saddle area and asymmetrical, and there may be loss of sensation in specific dermatomes of the lower extremities, correlating with the affected nerve roots. In assessment of motor strength, asymmetric areflexic paraplegia is also noticeable. Sphincter dysfunction tends to present late in the course of the disease.

Most patients present with weakness, specifically of the lower extremities, because cauda equina is associated with depressed deep tendon reflexes in the legs. Weakness in the affected limbs will increase and progress to loss of gait function and paralysis. Patients often report ascending numbness and paresthesias, and saddle anesthesia is common.

The following should be included in the differential diagnoses for patients with suspected cauda equina syndrome: muscle spasm, intervertebral disk disease, spinal stenosis, spinal epidural abscess, metastatic disease, radiation myelopathy, acute inflammatory demyelinating polyradiculoneuropathy, amyotrophic lateral sclerosis, diabetic neuropathy, Guillain-Barré syndrome, HIV-1-associated neuromuscular complications, multiple sclerosis, spinal cord neoplasms, neurosarcoidosis, spinal cord infections, and traumatic peripheral nerve lesions.

Course and Treatment

The goals for treatment of cauda equina syndrome include pain control, avoidance of further sequela, and preservation or improvement of neurologic function. Steroids, specifically glucocorticoids, are the traditionally accepted therapy with evidence of cord compression. Emergent radiation therapy is recommended for neoplastic cord compression and urgent surgical consultation should be sought for prompt decompression of the spinal cord. Rehabilitation may be useful to maximize medical function and prevent potential medical complications, particularly deep venous thrombosis,

bladder and bowel problems, and decubitus ulcers.

Discussion

Cauda equina syndrome is rarely seen in urgent care practices, but it is a diagnosis that must be considered in patients presenting with low back pain and neurologic complaints, especially urinary symptoms. The collection of nerve roots that constitutes the cauda equina connects the central and peripheral nervous systems. Cauda equina syndrome can be caused by any lesion that compresses cauda equina nerve roots, which are particularly susceptible to injury because they have a poorly developed epineurium. This creates a pattern of urogenital and neuromuscular symptoms that occur as a result of the compression of multiple lumbosacral nerve roots below the level of the conus medullaris. Cauda equina syndrome is not age-exclusive, but occurs most often in adults because they are at higher risk of potential causes of the syndrome, including spinal disk disease, metastatic cancer, surgical morbidity, and epidural abscess.

The classic symptoms of cauda equina syndrome include low back pain, sciatica, saddle sensory disturbances, sphincter dysfunction, and lower extremity sensory and motor loss. Causes vary; the most common are nucleus pulposus herniation, intradural disc rupture, lumbar stenosis, spinal trauma and fracture, neoplasm, infectious conditions or spinal abscess, arteriovenous malformation or hemorrhage, and iatrogenic injury.

A dimunition of reflexes is characteristic in cases of cauda equina syndrome, and signs of hyperreflexia may suggest a different diagnosis, such as spinal cord compression. Any signs of upper motor neuron involvement, including Babinski sign, suggest a different diagnosis, such as actual spinal cord compression. Because peripheral nerve fibers from the sacral region of the cord are involved along with the ventral and various lumbar dorsal nerve roots, there is an asymmetric and higher distribution of sensory and motor signs in the lower extremities.

Cauda equina syndrome is often a surgical emergency and damage can be irreversible once a patient is symptomatic. Therefore, it is critical to recognize early signs and transfer patients promptly to the emergency department for further evaluation and emergent treatment. ■

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On Rock Bands, Plane Crashes, SWAT Teams and Codes

JOHN SHUFELDT, MD, JD, MBA, FACEP

I've had the great pleasure of seeing Bruce Springsteen and the E Street Band perform live a number of times since the mid-70s. Yes, I started being a "groupie" while still in diapers (no, not Depends). What amazes me still is the obvious teamwork among band members and crew. Bruce can change an introduction, set list, or song on the fly by simply looking a certain way at Roy "The Professor" Bittan (piano) or "Mighty" Max Weinberg (drums) and they all start playing in the same key, on the same beat, and the exact same note. I have seen him do this countless times and the music just seems to flow. From an outsider's perspective, it looks effortless. I suppose that is what 40 years of playing together does.

I recently had the good fortune to survive a plane crash. Believe me, it wasn't as dramatic as it sounds. A pilot friend was flying when a gust of wind hit us right at the moment of takeoff from a mountain airstrip. The plane veered off the runway to the left and then back to the right before striking a hangar. Luckily, the person (also a pilot) in the back seat by the exit kicked the door open a moment before impact, otherwise, we would have been trapped. The pilot adroitly swung the tail of the plane around just prior to impact and therefore avoided going head first into the hangar door. We were all able to jump out as the plane caught fire and then exploded. No one said a word during the event; it was as if we had rehearsed for this moment. The three of us have been flying together for a number of years, and oddly enough, we talked through a couple of "what if" scenarios the night before over dinner. One of the scenarios we talked about was being trapped in a burning plane.

For the last 14 years I have been a physician-member of two SWAT teams. Initially, I was on the Department of Public Safety's (DPS) SWAT Team, and for the last 8 years, the Phoenix Police Department's team. In this role, I am the last person in the stack (the line of SWAT officers entering a building) on a couple of hundred call-outs. What continuously intrigues me about the team members is how they work in complete synchronicity despite being constantly thrown into highly stressful and lethal situations, sometimes without a lot of advance preparation. Even with detailed preparation and reconnaissance, there are unexpected threats that make instantaneous changes in tactics necessary. The well-trained team is able to quickly react as a cohesive unit and every person on the team knows that someone else has their back.

The common denominator of the aforementioned is preparation and teamwork coupled with the "I've got your back" attitude. In order to efficiently and safely treat patients, these practices must also be utilized in urgent care medicine.

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Case Study in How Not to Respond to an Emergency

For example, here is an actual patient encounter from a well-known urgent care center. A 46-year-old previously healthy male presented with the chief complaint of "feeling ill." Despite being on the job only a few days, the person at the front desk recognized that the man did not appear well and immediately called for assistance. The patient was placed in a wheelchair and pushed into the back office. As they were going by the triage room, the tech noticed that the patient was not responding appropriately. The man then began to experience what appeared to be a seizure. He was taken to the triage room, because it was the closest exam room not already occupied. The patient continued to seize as the tech screamed for help.

When her cries for assistance were heard, everyone including the provider came to assist. The patient, now a dark shade of purple, had vomited and appeared to aspirate. The physician (moonlighting Chief Resident from a nearby emergency medicine residency) called for an oral airway and ambu bag, as well as portable suction and a monitor. The patient continued to seize and was now apneic.

As the situation was unfolding, the new person in the front office simply froze. Although she made all the right decisions and took the right actions up to this point, she was out of her element.

The back office tech, who was an EMT on an ambulance on her off days, scrambled to help. She ran to get the "code cart," which had not been opened since the last Department of Health Services inspection, and almost forgot to unplug the monitor, which nearly crashed to the floor. By now, 60 seconds had elapsed. The portable suction was not where it should have been and the only masks for the ambu bag seemed to be sized for pediatric use. Ninety seconds had elapsed. The provider finally told the front desk person to dial 911, which she did immediately. However, since she was new, the address of the urgent care was not committed to memory and was not posted. One of the patients in the waiting room, seeing her stress, gave her the address.

It took the paramedics 4 minutes and 35 seconds from dispatch to arrival. During this time, the provider managed to bag-valve-mask the patient with an oral airway in place. At some point during that time, the oxygen tank ran out of O_2. (No one anticipated how quickly o_2 tanks are depleted with such a high flow rate). The patient lost his pulse at some point during the event, probably due to anoxia or the vasovagal response from vomiting and aspirating. The back office tech did a reasonable job at chest compressions. More than 6 minutes had elapsed from when the patient first seized.

Once the medics came into the room, they assumed care of the patient. He was intubated with difficulty, an IV line was started, and chest compressions continued. The initial accu-check was 19 mg/dL (very low). The patient was given D-50 and transported to the hospital. Ultimately, the patient survived in a persistent vegetative state due to prolonged cerebral anoxia.

As it turns out, he was a diabetic who took his morning dose of insulin and then, according to his wife, seemed to get "food poisoning" and could not keep anything down. He went to the closest urgent care around noon. Other than his tightly controlled diabetes, he was the picture of health. He had a very lucrative job trading futures and was the sole breadwinner for his family (wife and 3 young children).

The life care plan (how much it will cost to take care of him for the rest of his life) was determined to be more than $ 6 million. The negligence and loss of consortium claims pushed the total damages over $12 million. The theme of the plaintiff attorney's closing argument was, "All he needed was sugar."

Here is the rub. No one in the urgent care did the wrong thing. The care was appropriate, just not coordinated or timely. It was clear from the depositions of all involved, including the patients waiting in the lobby, that the staff "panicked." No one seemed to have control, the code cart was not well stocked, no one thought to check his blood sugar initially, and the oxygen tank ran out.

Ways to Prepare for the Unexpected

How often does your center participate in mock codes or dry runs or tabletop discussions of "what if" scenarios? Are the constantly rotating front and back office staffs oriented to their roles during an emergency? It can be as simple as this:

Front office tasks:

1. Identify sick patients and get assistance from the back.
2. Ask the provider if 911 should be called.
3. If "yes," call 911 and give them the clinic address posted by the counter.
4. If not needed in the back, once 911 has been dispatched, prop front doors open, clear the path, and wait outside to direct fire crew into center.

Back office:

1. Check the code cart or emergency equipment tray at the beginning of every shift.
2. Respond to front office request for help for "sick patient."
3. Notify the provider if not already aware.
4. Ask provider again if 911 is needed, if so, direct front office to call 911.
5. Bring code cart and oxygen tank into the room.
6. Anticipate needs (get ambu bag, mask, O_2 tubing, etc. ready)

Provider:

1. Respond to calls for assistance.
2. Quickly assess patient (Airway, Breathing, Circulation, and Disability) to determine need for 911 call.
3. If the patient is tachypneic, place on oxygen via mask.
4. If patient's mental status is altered, check blood sugar.
5. Support patient until 911 arrives.

Simply discussing these points and posting these tasks helps remind everyone what to do in case of an emergency. I know you are thinking, "This is so simple, why should we do this?" Here is why: Although many of you are trained to handle and expect emergencies, not everyone has that background or experience. In highly stressful times, things breakdown and everyone reverts to their training and "muscle memory." That is why checklists and repeated practice are necessary in other potentially high-risk areas like aviation and police special operations.

Take-home points:

1. Public expectation and the standard of care for urgent care centers is that they are able to handle (at least initially) emergencies.
2. Urgent care staff need to be trained on their roles during emergencies
3. Urgent care centers should have quarterly "mock codes" or "tabletop" discussions on what to do in case of an emergency.
4. Do no harm. You don't need to necessarily "save" patients (although saving them helps). You do need to respond appropriately and in a timely manner to patients who are experiencing an emergency. ■

INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 1

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*.

FIGURE 1

The patient, a 23-year-old male, presented with knee pain and trauma.

View the image taken (**Figure 1**) and consider what your diagnosis would be.

Resolution of the case is described on the next page.

THE RESOLUTION

FIGURE 2

Diagnosis: The x-ray reveals an incidental blastic lesion. Always look at all bony segments, even those unrelated to a patient's presentation. Further work-up is necessary for this patient.

Acknowledgement: Case presented by Nahum Kovalski, BSc, MDCM, Terem Emergency Medical Centers, Jerusalem, Israel.

ABSTRACTS IN URGENT CARE

- 'Choosing Wisely' initiative
- Diagnosing Strep Throat
- Backpacks and Back Pain
- TMP-SMX-Associated Renal Toxicity
- Complex Febrile Seizure and Risk of Intracranial Pathology
- Steroids for Pediatric Asthma
- Guidelines on Migraine Prevention

NAHUM KOVALSKI, BSc, MDCM

Each 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.

Doctor Panels Recommend Fewer Tests for Patients

Key point: The American Board of Internal Medicine, in partnership with nine medical specialty groups, is urging physicians to perform 45 common tests and procedures less frequently.

Citation: http://www.nytimes.com/2012/04/04/health/doctor-panels-urge-fewer-routine-tests.html?_r=1

An article in the *New York Times* notes that unnecessary treatment accounts for an estimated one third of medical spending in the United States.

The initiative, called Choosing Wisely, is aimed at both physicians and patients. Among the tests and treatments being cited:

- Routine EKGs during physicals
- MRIs for back pain
- Antibiotics for mild sinusitis
- Routine stress cardiac imaging in asymptomatic patients
- Imaging scans for simple headaches

http://choosingwisely.org/ is a website that discusses evidence-based recommendations that should be discussed to help make wise decisions about the most appropriate care based on a patients' individual situations. ■

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Can You Diagnose Strep Throat Without a Culture?

Key point: Compared with culture or rapid diagnostic tests, clinical criteria for diagnosing streptococcal pharyngitis are not sufficiently specific.

Citation: Shaikh N, Swaminathan N, Hooper EG. Accuracy and precision of the signs and symptoms of streptococcal pharyngitis in children: A systematic review. *J Pediatr.* 2012;160(3): 487-493.

Most often, pharyngitis in children is caused by viruses and does not require antibiotic treatment. Confirmatory diagnosis of group A streptococcal (GAS) pharyngitis generally requires a throat culture or rapid diagnostic test (RDT), which takes additional time and increases cost. Can GAS be differentiated from other causes of pharyngitis solely on the basis of clinical criteria?

To find out, researchers searched MEDLINE (1950–2011) and Embase (1966–2011) for articles containing data on the accuracy of symptoms or signs for ruling in or ruling out GAS pharyngitis in children aged 3 to 18 years. Thirty-four articles (including 24,418 children) contained data on specific symptoms and signs, and 15 had data on prediction rules.

Historically, the prevalence of GAS pharyngitis has been 37% among children presenting with sore throat. The authors posited that, to be useful for ruling in disease, a test must increase the probability of GAS pharyngitis to >85% — nearly the performance of RDTs (92%) — which translates to a likelihood ratio (LR) >9.6.

Although the finding of scarlatiniform rash, palatal petechiae, pharyngeal exudate, vomiting, or tender cervical

nodes increased the probability of GAS pharyngitis to >50%, none met the authors' performance criteria, and no symptom or sign was sufficient to rule out GAS pharyngitis. Data on combinations of findings (such as exudate plus tender nodes) were limited, but no combination increased the LR sufficiently. None of the prediction rules had an LR adequate for ruling in the diagnosis.

Published in *J Watch Infect Dis.* April 4, 2012 — Robert S. Baltimore, MD. ■

Heavy Backpacks Are Associated with Back Pain in Teens

Key point: Risk for back pain was 50% higher among those with the heaviest versus lightest backpacks.

Citation: Rodriguez-Oviedo P, Ruano-Ravina A, Perez-Rios M, et al. School children's backpacks, back pain and back pathologies. *Arch Dis Child* 2012 Mar 10; [e-pub ahead of print]. (http://dx.doi.org/10.1136/archdischild-2011-301253)

Although experts recommend schoolchildren carry backpacks that weigh less than 10% of their body weight, many carry loads that are heavier. In a cross-sectional study of 1403 children (age range, 12–17 years) at 11 schools in Spain, researchers examined the relation between the weight of children's backpacks and the presence of back pain lasting longer than 15 days during the prior year and previously diagnosed back pathology (e.g., scoliosis or kyphosis). Students were grouped into quartiles by backpack weight.

Mean backpack weight was 7 kg. More than half the children (61%) carried backpacks that weighed more than 10% of their body weight, and 18% carried backpacks that exceeded 15% of their body weight. One quarter of the cohort reported >15 days of back pain in the previous year. In analysis adjusted for body-mass index and sports activity, students carrying the heaviest backpacks had a 50% higher risk for back pain than those who carried the lightest backpacks. Girls had higher risk for back pain than boys, and risk increased with age. Back pathology was not significantly associated with backpack weight.

Published in *J Watch Ped Adol Med.* April 4, 2012 — F. Bruder Stapleton, MD. ■

TMP-SMX–Associated Renal Toxicity

Key point: Acute kidney injury occurred in 11% of TMP-SMX recipients but nearly always resolved after drug discontinuation.

Citation: Fraser TN, Avellaneda AA, Graviss EA, Musher DM. Acute kidney injury associated with trimethoprim/sulfamethoxazole. *J Antimicrob Chemother.* 2012;67(5):1271-1277.

Trimethoprim-sulfamethoxazole (TMP-SMX) is widely used to treat urinary tract and soft-tissue infections. Despite anecdotal reports indicating the possibility of TMP-SMX–associated renal toxicity, systematic investigation has been lacking.

To remedy this situation, researchers in reviewed the records of consecutive male inpatients at a who, during a 3-year period, had received TMP-SMX for >6 days to treat urinary tract or soft-tissue infections. All had blood urea nitrogen (BUN) and serum creatinine levels measured both <7 days before starting and <3 days after completing therapy.

Among 573 patients, 64 (11%) had increases in both BUN and serum creatinine levels that met predetermined criteria for acute kidney injury. The kidney injury was classified as probably caused by TMP-SMX in 33 patients (6%), possibly caused by TMP-SMX in 28 (5%), and probably unrelated to the drug in 3.

No relation was found between the dose of TMP-SMX — or the duration of treatment — and the likelihood of acute kidney injury. On multivariate analysis, hypertension and diabetes were the only independent risk factors for such injury. Fifty-four of the 64 patients with kidney injury had follow-up testing <1 month after TMP-SMX discontinuation; in 52 (93%), renal function had returned to baseline. One patient required dialysis.

Published in *J Watch Infect Dis.* April 4, 2012 — Thomas Glück, MD. ■

First Complex Febrile Seizure Portends Low Risk for Intracranial Pathology

Key point: Fewer than 1% of children with first complex febrile seizure and a normal neurological examination have clinically important intracranial pathology.

Kimia AA, Ben-Joseph E, Prabhu S, et al. Yield of emergent neuroimaging among children presenting with a first complex febrile seizure. *Pediatr Emerg Care.* 2012;28(4): 316-321.

Investigators retrospectively assessed risk for clinically important intracranial pathology detected on neuroimaging in previously healthy children ages 6 to 60 months with first complex febrile seizures. The study involved a cohort of 526 patients (median age, 17 months) who presented to a tertiary pediatric emergency department (ED) between 1995 and 2008 within 12 hours of the seizure. Patients with trauma, ventriculoperitoneal shunts, or prior seizure disorders were excluded. Seizures were defined as complex if they lasted >15 minutes, presented as a series, recurred within 24 hours, or if clinical findings suggested focality. Imaging findings were considered clinically important if emergent neurosurgical or medical intervention were required.

Overall, 268 patients underwent head computed tomography (CT), 6 underwent magnetic resonance imaging (MRI), and 8 underwent both. Four patients (1.5%) had clinically important intracranial findings: two intracranial bleeds identified on CT, one right-sided low-density cerebellar lesion identified on CT, and one disseminated encephalomyelitis found only on MRI. Only one patient with clinically important findings (a 4-year-

old boy with frontoparietal hematoma that did not require surgery or intracranial pressure monitoring) was otherwise well-appearing and had a normal neurologic exam. Among patients who did not undergo neuroimaging, none returned to the study site within the next 7 days; however, other EDs were not queried. When the analysis included patients who were not imaged but were presumed to be well because they did not return to the ED within 7 days, the risk of clinically important intracranial findings was 0.8%.

Published in *J Watch Emerg Med.* April 13, 2012 — Katherine Bakes, MD. ■

Benefits of Initiating Steroids at Triage for Pediatric Asthma

Key point: Initiation of oral steroids at triage decreased admissions and expedited clinical improvement in children with moderate to severe asthma exacerbations.

Citation: Zemek R, Plint A, Osmond MH, et al. Triage nurse initiation of corticosteroids in pediatric asthma is associated with improved emergency department efficiency. *Pediatrics.* 2012;129(4):671-680.

To evaluate the effect of initiating steroids at triage for children presenting to a pediatric emergency department with moderate to severe asthma exacerbations, investigators compared outcomes before and after introduction of a medical directive allowing triage nurses to administer steroids. Prior to the directive, physicians initiated steroids. Triage nurses administered inhaled β-agonists during both periods. Clinicians used the Pediatric Respiratory Assessment Measure (PRAM) to determine asthma severity; the PRAM is a validated 12-point clinical scoring system that discriminates severity based on five attributes: suprasternal retractions, scalene contractions, wheezing, air entry, and oxygen saturation.

Researchers reviewed charts of 644 patients (age range, 2 to 17 years; mean age, 6) who received oral steroids during the two 4-month study phases; 336 patients presented during the physician phase and 308 during the nurse phase. Time to clinical improvement (defined as a reduction in PRAM score of >3 points over 2 consecutive hours) was significantly shorter in the nurse phase than the physician phase (median difference, 24 minutes). Secondary outcome measures also significantly favored triage-initiated steroids: time to receipt of steroids (median difference, 44 minutes); time to mild status (median difference, 51 minutes); time to discharge (median difference, 44 minutes); and hospital admission rate (12% vs. 19%, odds ratio for admission, 0.56). There were no differences between groups in rates of return emergency department visits for asthma or subsequent admissions over the following 7 days.

Published in *J Watch Emerg Med.* April 13, 2012 — Katherine Bakes, MD. ■

The American and the American Headache Society have released updated guidelines on migraine prevention

Key point: Keeping abreast of the most effective medications for migraine is important.

Citation: Silberstein SD, Holland S, Freitag F, e tal. Evidence-based guideline update: Pharmacologic treatment for episodic migraine prevention in adults Report of the Quality Standards Subcommittee of the American Academy of Neurology and the American Headache Society. *Neurology.* 2012;78(17):1337-1345.

Among the recommendations for prescription pharmacologic agents:

- Most antiepileptic drugs (divalproex sodium, topiramate, sodium valproate), certain beta-blockers (metoprolol, propranolol, timolol), and one triptan (frovatriptan) are effective and should be offered to patients.
- Certain antidepressants (amitriptyline, venlafaxine), other beta-blockers (atenolol, nadolol), and other triptans (naratriptan, zolmitriptan) are probably effective and should be considered.
- Lamotrigine is not effective and should not be given.

Among the guidance on NSAIDs and complementary therapies:

- Petasites (butterbur) is effective and should be offered.
- Several NSAIDs (fenoprofen, ibuprofen, ketoprofen, naproxen), riboflavin, magnesium, feverfew, and histamine SC are probably effective and should be considered.
- Montelukast is probably ineffective and should not be considered. ■

CODING Q&A

Hospital Emergency Departments and Urgent Care Proximity, New vs. Established Patients using E/M Coding, Private Practice Urgent Care Coding

■ DAVID STERN, MD, CPC

Q. If a private practice buys or opens an urgent care facility that is not in a hospital nor affiliated with a hospital, should we be using routine E/M codes for our visits? Secondly, do we have to follow the Emergency Medical Treatment and Active Labor Act (EMTALA) Guidelines?

A. Yes. You should use the same E/M codes as used by the physician offices (99201-99215). EMTALA does not apply to urgent care centers that are not in a hospital nor affiliated with a hospital. ■

Q. Can an urgent care center and a hospital emergency department exist in close proximity to each other and/or be located in a combined facility?

A. Yes. Many hospitals set up a "fast track" program as part of the hospital emergency department (ED) to treat cases that are found to be relatively minor on triage. Because the fast tracks are actually a part of the ED, fast tracks generally code and bill as an ED.

As for an urgent care on campus, as long as the urgent care does not share a common entrance to the hospital ED, it seems reasonable to operate the urgent care and bill as an urgent care center (POS 22: outpatient hospital). Many hospitals err on the side of caution and stay under EMTALA guidelines. ■

Q. Our organization has two family practices and an urgent care that all operate under the same Tax Identification Number (TIN). If a patient of the family practice is seen in the urgent care, are they billed as an established patient even if it is the initial visit to a different practice within the group?

A. Yes. The patient is coded as an established E/M code if the patient has received services within the past 3 years at any location of the group (either primary care or urgent care) by any physician of the same specialty. ■

Q. If a patient is seen at a different location by the same provider, can we bill it as an initial visit?

A. The general answer is that you must code with an **ESTABLISHED** patient E/M code.

You must code with an **ESTABLISHED** patient E/M code when any of the following apply:

- The patient has received services from this particular physician in any setting (ED, other practice, nursing home, etc.) within the past 3 years.
- The patient has received services in the practice (at any location) from a physician of the same specialty within the past 3 years.

However, you can bill a **NEW** patient E/M code, if any one of the following criteria apply:

- The patient has not received physician services from the practice within the past 3 years.
- The patient has not received physician services in this clinic within the past three years and the clinic operates a separate practice under a different TIN from any other clinic where the patient has not received physician services within the past 3 years.
- The patient has not seen a physician of the same specialty (as this visit) in the same practice within the last 3 years. ■

David E. Stern is a certified professional coder. He is a partner in Physicians Immediate Care, operating 18 clinics in Illinois, Oklahoma, and Nebraska. Dr. Stern was a Director on the founding Board of UCAOA and has received the Lifetime Membership Award of UCAOA. He serves as CEO of Practice Velocity (*www.practicevelocity.com*), providing software solutions to over 750 urgent care centers in 48 states. He welcomes your questions about urgent care in general and about coding issues in particular.

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MARKETPLACE

MEDICAL EQUIPMENT

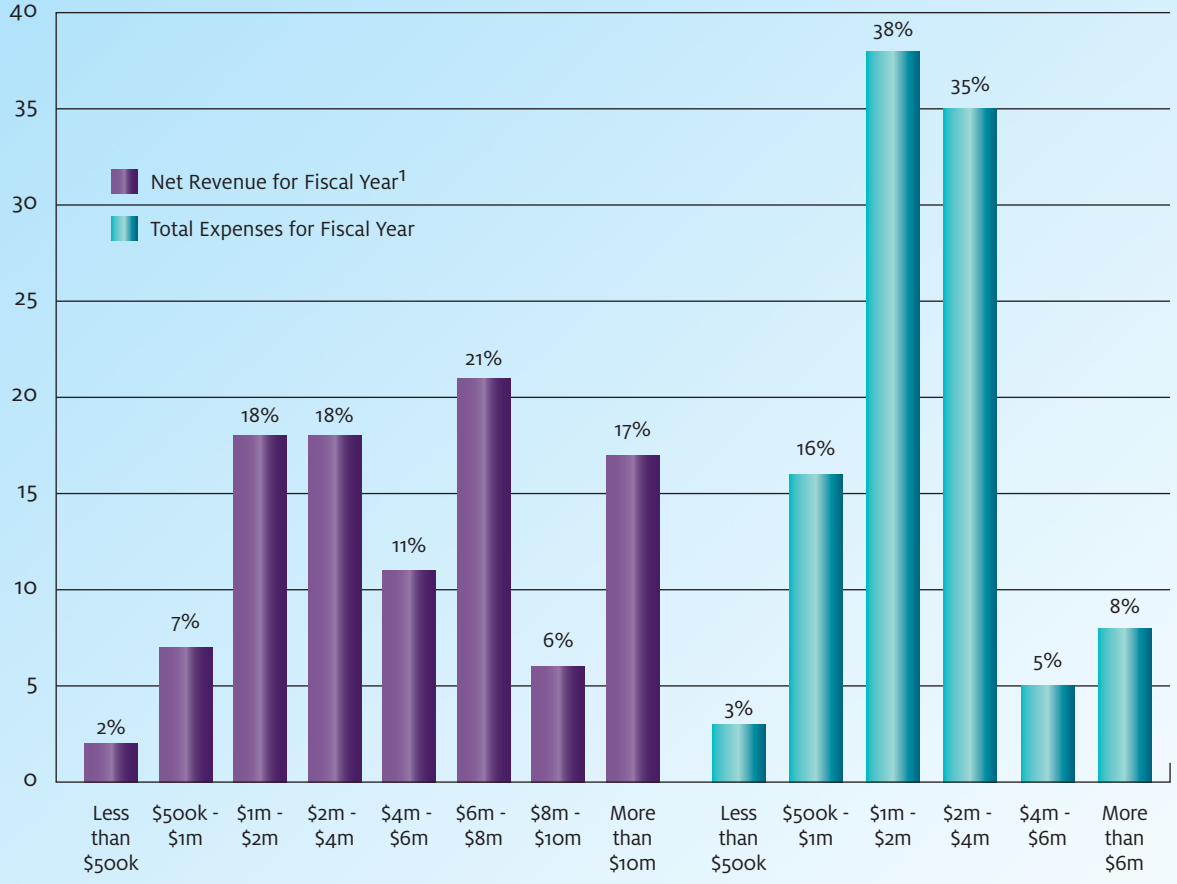
DEVELOPING DATA

These data from the 2010 Urgent Care Benchmarking Survey are based on responses of 1,691 US urgent care centers; 32% were UCAOA members. The survey was limited to "full-fledged urgent care centers" accepting walk-ins during all hours of operation; having a licensed provider and x-ray and lab equipment onsite; the ability to administer IV fluids and perform minor procedures; and having minimal business hours of seven days per week, four hours per day.

In this issue: What were your net revenue and total expenses for the fiscal year?

NET REVENUE AND TOTAL EXPENSES FOR FISCAL YEAR

The 2008 survey reported "Average total revenue for most recently completed fiscal year" at $1,448,058. The 2010 survey looked at both Revenue and Expenses.



[1]Net Revenue defined as gross after contractual adjustments, minus refunds.

Acknowledgement: 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. The full 40-page report can be purchased at www.ucaoa.org/benchmarking.

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