Rely on DocuTAP for real, live EMR and Practice Management support. At implementation, we work side-by-side with you and provide personalized, onsite training for your entire staff. And when your solution is up and running, our dedicated, highly qualified account manager becomes your partner for ongoing success.

At DocuTAP, we’re here for the life of your EMR and Practice Management solution. It’s continuity of care – with house calls included.

“Their exceptional software aside, DocuTAP offers what a lot of the large EMR companies do not: one-on-one support and careful attention to the client relationship. With DocuTAP, the implementation process was completed quickly with personalized support throughout.”

– Steve Rebnord, Clinic Manager
LETTER FROM THE EDITOR-IN-CHIEF

Visioning for the Future of Urgent Care

The Urgent Care Association of America’s spring convention in New Orleans, April 28–May 2 culminated an incredible year for our association. The convention was attended by 660 urgent care practitioners and administrators, and represented an incredible show of strength for our industry, the discipline of urgent care medicine, and UCAOA. As witnessed by those of you who have attended many of our recent conventions, UCAOA has achieved remarkable growth in only four years of existence.

With that growth comes responsibility. Responsibility to be well governed and accountable. Responsibility to be transparent and financially mindful. Responsibility to invest in the growth of our discipline and representation of our industry. Responsibility to be a clearinghouse of information relevant to practice growth and clinical quality.

Since last May, through the incredible work of dedicated staff, committee members, and volunteers at large, UCAOA has made extraordinary achievements:

- Membership has grown 125%.
- In collaboration with Robin Weinick, PhD and The Institute for Health Policy at Massachusetts General Hospital, we completed the first national sampling frame, identifying over 8,000 urgent care centers across the country. To put this in perspective, there are less than 4,300 emergency departments by comparison.
- With the help of these same researchers, we completed the first scientifically valid benchmarking survey ever done in our industry, the results of which were summarized at the annual members meeting. Both of these efforts represent a giant leap towards legitimizing and accurately representing the impact and role of urgent care within the healthcare delivery system.
- JUCM, The Journal of Urgent Care Medicine continued its strong growth. With a circulation of over 13,000 urgent care practitioners and administrators, the journal solidified its standing as the most important forum in the country for peer-reviewed and practice management content relevant to urgent care practice.
- The first fellowship in urgent care medicine, at University Hospitals in Cleveland, OH, completed its first year, graduating three fellows in July 2007. The program has since expanded to the University of Illinois–Rockford College of Medicine, in collaboration with Physicians Immediate Care. A commitment to education is a critical piece of any evolved medical discipline and helps ensure the clinical quality necessary to the successful practice of urgent care. Additional educational programs focused on continuing education for new and experienced urgent care practitioners are planned.

As I have said before, success is merely a mandate for future accomplishment. And your support is critical to our future. Our ability to achieve our mission, to provide leadership, education and resources for the successful practice of urgent care, depends on member support. We are a volunteer organization, and member involvement drives the organization and ensures we speak with a representative voice. Participate in a committee, submit a manuscript to the journal, volunteer to speak at a conference, recruit new members, organize regionally. Ask yourself how you can contribute to the mission, how you can make the organization better.

We welcome your feedback, but we depend on your contribution.

Thank you for believing in UCAOA. On behalf of you, we are committed to our vision: To be the catalyst for the recognition of urgent care as an essential part of the healthcare system. With your help, we will achieve.

Lee A. Resnick, MD
Editor-in-Chief
JUCM, The Journal of Urgent Care Medicine
President, UCAOA
Introducing the HOSTED SOLUTION for STIX, the only EMR for Urgent Care and Occupational Medicine.


Integritas now offers a HOSTED SOLUTION, for the STIX package. Our server or yours—either option includes all the special functions you and your staff need. Stop trying to fit a round peg in a square hole and get the software built to get your job done.

Using the EMR/Practice management software designed specifically for your type of practice makes all the difference when it comes to peak performance and profitability.

Call 800-458-2486 or email stixsales@integritas.com for your FREE product demonstration.

www.integritas.com
Summer activities lead to higher incidence of orthopedic injuries, especially to the lower extremities. Are you and your staff up to speed on assessment and treatment of ankle fractures?

Next month in JUCM:

Summer activities lead to higher incidence of orthopedic injuries, especially to the lower extremities. Are you and your staff up to speed on assessment and treatment of ankle fractures?
JUCM Editor-in-Chief
Lee A. Resnick, MD
Case Western Reserve University
Department of Family Medicine
University Hospitals Medical Practices

JUCM Editorial Board
Jeffrey P. Collins, MD, MA
Harvard Medical School;
Massachusetts General Hospital
Tanise Edwards, MD, FAAEM
Author/editor (Urgent Care Medicine)
William Gluckman, DO, MBA, FACEP
St. Joseph’s Regional Medical Center
Paterson, NJ
New Jersey Medical School
Nahum Kovalski, Bsc, MDCM
Terem Immediate Medical Care
Peter Lamelas, MD, MBA, FAAEP
MD Now Urgent Care Walk-In
Medical Centers

JUCM Advisory Board
Michelle H. Biros, MD, MS
University of Minnesota;
Editor-in-Chief, Academic Emergency Medicine
Kenneth V. Iserson, MD, MBA, FACEP, FAAEM
The University of Arizona
Daniel R. Konow, PA-C, MBA
RediMed
Benson S. Munger, PhD
The University of Arizona
Emory Petrack, MD, FAAP
Petrack Consulting, Inc.; Fairview Hospital
Cleveland, OH

UCAOA Board of Directors
Lee A. Resnick, MD, President
Cindi Lang, RN, MS, Secretary
Jeff Collins, MD, MA, Director
Don Dillahunty, DO, MPH, Director
J. Dale Key, Director
John J. Koehler, MD, Director
Peter Lamelas, MD, MBA, Director
Marc R. Salzberg, MD, FACEP, Director
David Stern, MD, CPC, Director
Laurel Stoimenoff, Director
Amy Tecosky, Director
Lou Ellen Horwitz, MA, Executive Director

JUCM The Journal of Urgent Care Medicine (www.jucm.com) is published through a partnership between Braveheart Publishing (www.braveheart-group.com) and the Urgent Care Association of America (www.ucaoa.org).

EDITOR-IN-CHIEF
Lee A. Resnick, MD
editor@jucm.com

EDITOR
J. Harris Fleming, Jr.
hfleming@jucm.com

CONTRIBUTING EDITORS
Nahum Kovalski, BSc, MDCM
Frank Leone, MBA, MPH
John Shufeldt, MD, JD, MBA, FACEP
David Stern, MD, CPC

ART DIRECTOR
Tom DePrenda
tdeprenda@jucm.com

2 Split Rock Road, Mahwah NJ 07430

PUBLISHERS
Peter Murphy
pmurphy@braveheart-group.com
(201) 847-9934
Stuart Williams
swilliams@braveheart-group.com
(201) 529-4004

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.

JUCM The Journal of Urgent Care Medicine (JUCM) makes every effort to select authors who are knowledgeable in their fields. However, JUCM does not warrant the expertise of any author in a particular field, nor is it responsible for any statements by such authors. The opinions expressed in the articles and columns are those of the authors, do not imply endorsement of advertised products, and do not necessarily reflect the opinions or recommendations of Braveheart Publishing or the editors and staff of JUCM. Any procedures, medications, or other courses of diagnosis or treatment discussed or suggested by authors should not be used by clinicians without evaluation of their patients’ conditions and possible contraindications or dangers in use, review of any applicable manufacturer’s product information, and comparison with the recommendations of other authorities.
We are Committed to Urgent Care

- Unparalleled customer service
- Full line of prepackaged pharmaceuticals
- No fee, web based dispensing system
- Expert EMR integrators
- Guaranteed Work Comp and Occupational Health billing services

Contact us at:
800.333.9800
uc@physicianpartner.com | www.physicianpartner.com

Our commitment is your success
It isn’t news that diabetes is a relatively common condition in the United States; as pointed out in our lead article this month (Diabetic Emergencies in the Urgent Care Setting, page 11), approximately 7% of the population is affected. Unfortunately, it’s estimated that 6 million of them have yet to be properly diagnosed. Odds are that some of them will be walking into your practice at some point.

And that’s one of the key points the authors, Allan F. Moore, MD, Nicolas Abourizk, MD, and Jeffrey Collins, MD, MA would like to get across. As you undoubtedly already know, urgent care clinicians don’t always have the luxury of knowing a patient’s history, often relying on what the patient shares and whatever can be gleaned from symptoms and the resulting diagnostics. Hence, familiarity with—and being prepared to manage—diabetes-related emergencies in patients you may have never seen before can literally mean the difference between life and death.

It’s a subject the authors are well qualified to address. Drs. Moore and Abourizk are colleagues at Massachusetts General Hospital’s MGH Diabetes Center; Dr. Abourizk also practices in the Section of Endocrinology and Diabetes at Newton-Wellesley Hospital in Newton, MA; and Dr. Collins is medical director at Chelsea Urgent Care Center, also part of Mass General, and is a clinical instructor at Harvard Medical School. He also sits on the JUCM Editorial Board and was recently elected to the UCAOA Board of Directors.

Also well qualified to address their respective topics in this issue are Alan Ayers, MBA, MAcc and Donna Lee Gardner, RN, MS, MBA. Mr. Ayers brings his experience as assistant vice president of product development for Concentra Urgent Care to bear on the subject of how patients perceive the concept of a “quality” urgent care experience (Minding Your [Urgent Care] Ps and Qs, page 26), while Ms. Gardner’s considerable expertise in occupational medicine allows her to write with authority on the importance of a strong loss management/injury management component to an urgent care office program (Loss Management/Injury Management and Rehabilitation, page 30). Ms. Gardner is senior principal with Ryan Associates.

In addition, Nahum Kovalski, BSc, MDCM reviews abstracts regarding new literature of high importance in the urgent care arena (page 24); John Shufeldt, MD, JD, MBA, FACEP—who recently was awarded a Bronze Award for his Health Law column by the American Society of Healthcare Publication Editors (ASHPE)—tackles the challenge of asset protection for urgent care providers and owners (page 32); David Stern, MD, CPC responds to our readers’ queries regarding appropriate coding for a variety of services (page 34); and Frank Leone, MBA, MPH explains how a prospect’s self-interest can actually give you a leg up on signing them on as a new occupational health client (page 35).

In addition, we should highlight the contributions of someone whose work is very familiar to regular readers of JUCM, even if you’re not consciously aware of it. Our art director, Tom DePrenda, joins Dr. Shufeldt in being recognized for his excellent work by the ASHPE, receiving a Bronze Award for the overall graphic appeal of our November 2007 issue.

We hope you find this issue to be helpful in your practice. If you’d like to help us ensure that future issues are relevant to your practice and address urgent care issues in an urgent care “voice,” consider submitting an article or volunteering to review articles. Send an e-mail to our editor-in-chief, Lee A. Resnick, MD at editor@jucm.com.
A CBC Analyzer Perfect for
The Urgent Care Market

- Simple to train and use
- No costly, bulky, wet reagents
- No maintenance or routine calibration
- Low sample volume
- CBC results from a fingerstick
  - Internal Quality Control
  - Portable
  - 9 parameters
  - 2 part differential

Contact Us for an ROI

QBC Diagnostics 1-877-231-3115 qbcsales@qbcdiag.com
Looking Back

What a ride! The UCAOA 2008 National Convention is over, but for the 660 attendees and 67 exhibiting companies, plus over 50 faculty, many of us are still breathless from the incredible amount of learning, idea swapping, networking, and socializing that took place in New Orleans last month. If you joined us, thank you for sharing what we hope was also a great experience for you, and if you didn’t, you were missed!

For a full set of convention highlights (including a slide show and some program “pearls”) I invite you to visit the UCAOA website (www.ucaoa.org).

However, as we are fond of saying at UCAOA, any success we have only raises our expectations for the future, so whether you joined us this year or not, be sure to save April 20-23, 2009 in your calendar to come to Las Vegas. It will be even better!

Looking Ahead

Contemplating the future can be a scary thing. It is, in itself, an uncertain activity. In addition, it is imperative that any responsible contemplation include both the best and worst scenarios—however uncomfortable that might be.

Everyone in New Orleans experienced a bit of that during our keynote address on the future of primary care—and it was uncomfortable!

None of us (including the keynote speaker) really know what is going to happen with primary, urgent, or convenient care. The possibilities of disruptive technologies, legislation, catastrophic events, consumer influences, and so on are just too numerous for any of us to say for certain what the future holds.

Just a few days ago, there was a Wall Street Journal article reporting that the “boom” in the retail clinic industry may be slowing down. But life continues to move very fast.

If we got to design the world, it would be all about the success of urgent care. But we need to temper that enthusiasm with knowing that being a leader also means looking at many different possible futures, and developing at least a conceptual plan for how to influence—or at the very least respond to—those possible futures.

While a gathering of urgent care industry leaders is certainly a great opportunity to celebrate our industry and the marvelous growth and strides we have all made, it is also a critical opportunity to be sure we are all thinking ahead to whatever the future may bring, and to make sure we are prepared to meet those challenges and seize those opportunities.

If you are not familiar with the short book Who Moved My Cheese?, it is one that I will highly recommend.

Through a parable about mice and men and the disappearance of cheese, it deals with the different ways we can respond to change. It is excellent (and quick) reading for anyone in an environment like ours with considerable outside influences that will keep on moving the cheese. Consider checking it out if you have not.

Looking Inward

At UCAOA, your current and future challenges are our challenges, which is why the leadership of our Board of Directors is so important.

Our members added five new Directors through the elections in New Orleans, and we look forward to the addition of their voices to our strategic discussions.

The new member of the UCAOA Board of Directors are:

Jeff Collins, MD
Don Dillahunty, DO, MPH
J. Dale Key
Peter Lamelas, MD, MBA
Laurel Stoimenoff

In the coming months, as we launch new projects we have been working on (the redesigned website, new job board, new courses at the Fall Urgent Care Conference and new online CME), we will also be looking toward what may be next, so we invite you to share any thoughts, concerns, comments, questions, ideas, hunches, prognostications. Bring it on. We do it best when we do it together.

Lou Ellen Horwitz is executive director of the Urgent Care Association of America. She may be contacted at lhorwitz@ucaoa.org.
CLINICAL PHARMACOLOGY:
propylparaben, purified water, sucrose, vegetable oil, xanthan gum.

-TUSSIONEX Pennkinetic Extended-Release Suspension is for oral use only.

Each teaspoonful (5 mL) of TUSSIONEX Pennkinetic Extended-Release Suspension contains

mg of chlorpheniramine maleate. TUSSIONEX Pennkinetic Extended-Release Suspension provides up to 12-hour

duration of action of hydrocodone in this formulation may exceed that of the antagonist, the patient should be kept

provision of a patent airway and the institution of assisted or controlled ventilation. The narcotic antagonist naloxone

narcosis or severe hypoxia. In severe overdose apnea, circulatory collapse, cardiac arrest and death may occur.

RESPIRATORY DEPRESSION in pediatric patients. Benefit to risk ratio should be carefully considered, especially in pediatric

cardiovascular system are insignificant. Hydrocodone can produce miosis, euphoria, and physical and psychological
dependence.

Chlorpheniramine is an antihistamine drug (H1 receptor antagonist) that also possesses anticholinergic and sedative

activity, it is from the diphenylmethane derivative of pseudoephedrine and is a structural isomer of the respiratory mucous

Hydrocodeone release from TUSSIONEX Pennkinetic Extended-Release Suspension is controlled by the Pennkinetic

System, an extended-release drug delivery system, which combines an ion-exchange polymer matrix with a differential

ratio-writing permeating coating. Chlorpheniramine release is prolonged by use of an ion-exchange polymer matrix

following multiple dosing with TUSSIONEX Pennkinetic Extended-Release Suspension, hydrocodeone mean (S.D.)

peak plasma concentrations of 58.4 (14.7) ng/mL occurred at 6.3 hours following multiple dosing. Peak plasma levels
taken with an immediate-release syrup occurred at approximately 1.5 hours for hydrocodeone and 2.8 hours for

Chlorpheniramine-self-liquid and hydrocodeone have been reported to be approximately 4 and 16 hours, respectively.

INDICATIONS AND USAGE: TUSSIONEX Pennkinetic Extended-Release Suspension is indicated for relief of cough

and upper respiratory symptoms associated with allergy or a cold in adults and children 6 years of age and older.

CONTRAINdications: TUSSIONEX Pennkinetic Extended-Release Suspension is contraindicated in patients with

a known allergy or sensitivity to hydrocodeone or chlorpheniramine.

The use of TUSSIONEX Pennkinetic Extended-Release Suspension is contraindicated in children less than 6 years of age

due to the risk of total respiratory depression.

WARNINGS: Respiratory Depression: As with all narcotics, TUSSIONEX Pennkinetic Extended-Release Suspension

produces dose-related respiratory depression by directly acting on brain stem respiratory centers. Hydrocodeone alters

the centers that control respiratory rhythm and may produce irregular and periodic breathing. Caution should be

exercised when TUSSIONEX Pennkinetic Extended-Release Suspension is used postoperatively and in patients

with pulmonary disease, or whenever ventilatory function is depressed. If respiratory depression occurs, it may be

attributed to the use of hydrocodeone and other suppressive measures when indicated (see OVERDOSAGE).

Head Injury and Increased Intracranial Pressure: The respiratory depressant effects of narcotics and their capacity to

elicit cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions,

or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions, which may

be atypical in patients with the following conditions: Acute Abdominal Conditions: The administration of narcotics may obscure the diagnosis or course of patients with

obstructive bowel disease: Chronic use of narcotics may result in obstructive bowel disease especially in patients

with underlying interstitial disorder.

Pediatric Use: The use of TUSSIONEX Pennkinetic Extended-Release Suspension is contraindicated in children less

than 6 years of age (see CONTRAINDICATIONS).

In pediatric patients, as well as adults, the respiratory center is sensitive to the depressant action of narcotic cough

suppositories in a dose-dependent manner. Caution should be exercised when administering TUSSIONEX Pennkinetic

Extended-Release Suspension to pediatric patients 6 years of age and older. Overuse or concurrent administration of

TUSSIONEX Pennkinetic Extended-Release Suspension with other respiratory depressants may increase the risk of

respiratory depression in pediatric patients. Benefit to risk ratio should be carefully considered, especially in pediatric

patients with respiratory emphysema (e.g., croup) (see PRECAUTIONS).

PRECAUTIONS: General: Caution is advised when prescribing this drug to patients with narrow-angle glaucoma,

or with severe hepatic insufficiency. This class of drugs may elicit respiratory depression in patients with latent

and/or a history of depression, or patients with a history of drug or alcohol abuse.

Special Risk Patients: As with any narcotic agent, TUSSIONEX Pennkinetic Extended-Release Suspension should be

used with caution in patients with obstructive sleep apnea and those with severe impairment of hepatic function,

hypothyroidism, Addison’s disease, prostatic hypertrophy, or urinary atonia. The usual precautions should be

observed and the possibility of respiratory depression should be kept in mind.

Information for Patients: As with all narcotics, TUSSIONEX Pennkinetic Extended-Release Suspension may produce

marked drowsiness and impair the mental and physical abilities required for the performance of potentially

hazardous tasks such as driving a car or operating machinery; patients should be cautioned accordingly. TUSSIONEX

Pennkinetic Extended-Release Suspension must not be diluted with fluids or mixed with other drugs as this may alter

the respiration and change the absorption rate, possibly increasing the toxicity. Patients should be advised to

measure TUSSIONEX Pennkinetic Extended-Release Suspension with an accurate measuring device and do not

pour liquid from a measuring device and should lead to respiratory depression, especially when a half a teaspoon is measured. A pharmacist can recommend an appropriate measuring device and can also provide instructions for measuring the correct dose.

shake well before using.

keep out of the reach of children.

Controlled Substance: Hydrocodeone is a controlled substance. As with all narcotics, caution should be exercised when

TUSSIONEX Pennkinetic Extended-Release Suspension is used postoperatively, and in patients with pulmonary disease.

Drug Interactions: Patients receiving narcotics, antidepressants, antipsychotics, antihypertensive agents, or other

CNS depressants (including alcohol) concomitantly with TUSSIONEX Pennkinetic Extended-Release Suspension may

exhibit an additive CNS depression. When combined therapy is contemplated, the dose of one or both agents should

be reduced.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.

The use of MAO inhibitors or tricyclic antidepressants with hydrocodeone preparations may increase the effect of either

the antihypertensive or hydrocodeone. The concurrent use of other anticholinergics with hydrocodeone may produce paralytic ileus.
Tussionex®: The only FDA-approved 12-hour Rx syrup antitussive

- Extended action helps patients to have restful nights and productive days

INDICATION AND IMPORTANT SAFETY INFORMATION
TUSSIONEX® is indicated for the relief of cough and upper respiratory symptoms associated with allergy or a cold in adults and children 6 years of age and older. Each 5 mL of TUSSIONEX® contains hydrocodone bitartrate equivalent to 10 mg hydrocodone bitartrate and chlorpheniramine polistirex equivalent to 8 mg chlorpheniramine maleate.

TUSSIONEX® is contraindicated in children less than 6 years of age due to the risk of fatal respiratory depression, and in the presence of known allergy or sensitivity to hydrocodone or chlorpheniramine. The most common adverse reactions associated with TUSSIONEX® are sedation, drowsiness, and mental clouding, which may impair the mental and/or physical abilities required for potentially hazardous tasks such as driving or operating machinery. TUSSIONEX® should not be taken with alcohol or other CNS depressants. TUSSIONEX® is dosed at 5 mL every 12 hours in patients 12 years of age and older, and at 2.5 mL every 12 hours in patients 6-11 years of age. Overdose with TUSSIONEX® has been associated with fatal respiratory depression. Patients should be advised to measure TUSSIONEX® with an accurate measuring device. A household teaspoon is not an accurate measuring device. As with any other drugs in this class, the possibility of tolerance and/or dependence, particularly in patients with a history of drug dependence, should be considered.

Please see full Prescribing Information on reverse.
Clinical

Diabetic Emergencies in the Urgent Care Setting

Urgent message: Patients with glucose levels either too high or too low often require immediate, potentially life-saving interventions in the urgent care setting. These patients are often found to be diabetic.

Allan F. Moore, MD, Nicolas Abourizk, MD, Jeffrey Collins, MD, MA

Introduction

Diabetes is a common chronic disease affecting approximately 7% of the United States population. Of these individuals, 17.5 million carry a diagnosis of diabetes and over 6 million are undiagnosed. An estimated 54 million additional Americans have prediabetes.

In 2007, the total annual economic cost of diabetes care in the U.S. was estimated at $174 billion—with the majority of this cost being spent on urgent and emergent care and in-patient hospitalization.1

Unfortunately, due to a multitude of factors (e.g., primary care and subspecialty access, insurance resources, the level of patient understanding about their condition), diabetes care is often fragmentary or insufficient. Hence, diabetic patients will continue to seek care in walk-in centers, and the likelihood of encountering serious diabetic complications in urgent care will increase.

Common glycemic emergencies seen in diabetic patients in the urgent care setting include diabetic ketoacidosis (DKA), hyperglycemic hyperosmolar state (HHS), and hypoglycemia. All three require immediate evaluation and treatment.

This review will take a case-study approach to exemplify the immediate triage, evaluation, and treatment of adult patients with glycemic perturbations.

Case Studies: Patient 1

Presentation

C.K. is a 19-year-old female who presents to the urgent care with her mother. She had been feeling weak and tired for several days but now, according to her mother, is not eating. She has been vomiting “on and off.” Her mother states “she’s not herself.”

In triage, we find:
- oral temperature 102.4°F
- pulse 112
- BP 84/50 mmHg

The patient is ill-appearing and states her stomach hurts. A screening urine dip reveals:
- 3+ WBC
- 2+ RBC
- + nitrite
The patient is brought back to an examination room immediately.

Discussion
This patient presents with signs, symptoms, and laboratory testing diagnostic of DKA, a potentially life-threatening condition with a mortality of approximately 5%. Although commonly associated with type 1 diabetes, DKA is seen in patients with type 2 disease as well, especially obese African-Americans. On average, patients with type 1 diabetes will have one episode of DKA in their lifetime, accounting for approximately 100,000 admissions annually in the U.S.

The diagnosis of DKA requires an understanding of both the clinical and laboratory derangements associated with the condition. Patients with DKA are uniformly volume-depleted with dry mucous membranes, decreased jugular venous pressure, orthostatic hypotension, tachycardia, and oliguria.

Acetone production produces a fruity odor on the patient’s breath, and respirations may be deep and rapid (Kussmaul breathing), a response by the medullary respiratory center to worsening acidosis.

A peculiar and poorly understood clinical feature of DKA is severe abdominal pain, especially in children, which has been confused with an acute surgical abdomen. The etiology of the abdominal pain is suspected to be a combination of electrolyte derangement, dehydration, and acidosis, although other authors suggest hepatic enlargement and stretching of Glisson’s capsule may also be involved.

The biochemical derangements of DKA include an inter-related triad of hyperglycemia (blood glucose >250 mg/dL), acidosis (arterial pH <7.3), and ketonemia (anion gap >14).

The severity of DKA is not reliably predicted by the level of hyperglycemia and requires integration of clinical and laboratory findings. Although an anion gap metabolic acidosis is the most common acid-base disturbance on presentation, a pure hyperchloremic metabolic acidosis or combination of the two disorders can also be seen.

Other common laboratory findings on presentation include hyperkalemia and hyperphosphatemia which result from acidosis and insulin deficiency, forcing potassium and phosphate out of the intra-cellular compartment into the extra-cellular compartment. Hyponatremia results as water follows electrolyte movement into the extracellular space. Leukocytosis, hyperlipidemia, and hyperamylasemia are also common laboratory findings.

Because up to 20% of DKA cases involve patients not known to be diabetic, a broad differential diagnosis must be considered.

Profound hyperglycemia may be seen in HHS (discussed later in this article), and stress hyperglycemia associated with burns and other severe injuries. Ketosis may be seen in alcoholic ketoacidosis, a result of binge drinking in a chronic alcoholic patient that can be distinguished from DKA via an elevated β-hydroxybutyrate to acetoacetate ratio, as well as starvation ketosis, a condition resulting from fasting for at least 24 to 48 hours, which presents with mild ketosis (bicarbonate >18 mEq/L) in the absence of hyperglycemia.

A number of conditions may result in an anion gap acidosis, including lactic acidosis, renal failure, and ingestions of salicylate, methanol, ethylene glycol, and paraaldehyde.

Treatment
Emergent therapy for DKA must be rapid. Intravenous (IV) fluids and insulin therapy are the first considerations.

Although there has been controversy concerning the optimal resuscitation fluid, these authors prefer normal saline. Following a bolus of 1 liter of normal saline (0.9% NaCl), the infusion should be maintained at a rate of 500 mL/hr to 1,000 mL/hr for the next two hours. Once the serum blood glucose decreases to 250 mg/dL, dextrose 5% should be added to the replacement fluids in order to avoid hypoglycemia or cerebral edema.

Intravenous fluids should then be administered at 10 mL/kg/hr to 20 mL/kg/hr until the patient is hemodynamically stable and finally titrated to match urine output. Typically, intravenous fluids are needed for at least 48 hours, and care should be taken in patients with renal dysfunction, congestive heart failure, or other conditions with impaired fluid homeostasis.

Intravenous administration of insulin is preferred to intramuscular or subcutaneous dosing, as the IV route results in larger reductions in serum glucose and ketone levels in the first two hours following presentation. An initial IV bolus of 0.15 U/kg of regular insulin.
is first administrated followed by a constant IV infusion of 0.1 U/kg/hr. The rate is reduced when the serum glucose reaches 250 mg/dL, at which time dextrose 5% is added to the replacement fluid.

Intravenous insulin should continue until the anion gap and ketosis have resolved.

Generally, most urgent care practices would transfer the patient to a hospital emergency room at this point; however, if unable to do so, follow this algorithm.

Optimal insulin titration results in an hourly serum glucose reduction of between 50 mg/dL and 70 mg/dL. Once DKA has resolved (pH 7.3, bicarbonate >18 mEq/L, serum osmolarity <200 mOsm/kg), insulin injections every four hours are initiated. Known diabetics can resume their prior insulin regimens; newly diagnosed diabetic patients require, on average, 0.6 U/kg/day in divided doses. Insulin titration is often required again after discharge once the insulin resistance associated with the DKA state has resolved. Some overlap in IV and SQ insulin dosing ensures that ketosis and hyperglycemia do not recur.

Another important consideration for the emergent therapy of DKA includes timely electrolyte monitoring and replacement.

Most DKA patients are hyperkalemic on presentation due to the extracellular shift of potassium out of cells during acidemia and insulin deficiency, despite total body potassium deficiency (which typically ranges from 500 mEq/L to 700 mEq/L).

However, as many as 10% of DKA patients may be hypokalemic on presentation. As insulin and fluids are administered, potassium levels often drop precipitously as potassium re-enters cells. Potassium replacement, either as potassium phosphate or potassium acetate, should be initiated when the serum potassium level falls below 5.5 mEq/L. Potassium should not be given at a rate greater than 40 mEq/hr, and plasma levels should remain between 4 mEq/L and 5 mEq/L during replacement.

Electrocardiogram monitoring may be required if large amounts of potassium are needed. Phosphate dysregulation mirrors potassium dysregulation, with phosphate
exiting cells during acidosis and insulin deficiency, and returning during insulin and fluid replacement.

Phosphate replacement is not required unless the serum phosphate level falls below 1 mEq/L or the patient is hypoxic or anemic. If required, 20 mEq/L to 30 mEq/L of potassium phosphate can be added to replacement fluids. Hypocalcemia may result and should be monitored. Bicarbonate replacement is usually not required, and has generally not been shown to be effective. Our standard practice is to administer bicarbonate replacement only in cases of life-threatening hyperkalemia or severe academia (pH <7.0); however, this approach remains unproven.5

Finally, it is critical to identify the precipitating event, triage the patient appropriately, and implement future prevention strategies. The most common precipitating factors for DKA include infection (our patient in Case 1 had pyelonephritis), cardiovascular events, medical non-adherence due to psychosocial reasons, pump failure, other medical illnesses, and carbohydrate-altering medications.

Most DKA patients will require at least a brief inpatient admission, and those with hypotension, oliguria, mental obtundation, or coma require intensive care admission and observation. Several excellent reviews of DKA diagnosis and pathophysiology are currently available.5-8

### Table 1. DKA and HHS Presentations

<table>
<thead>
<tr>
<th></th>
<th>DKA</th>
<th>HHS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onset</strong></td>
<td>Acute</td>
<td>Insidious</td>
</tr>
<tr>
<td><strong>Mortality</strong></td>
<td>~5%</td>
<td>~15%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>All ages</td>
<td>Elderly</td>
</tr>
<tr>
<td><strong>Examination</strong></td>
<td>Abdominal pain, Kussmaul breathing</td>
<td>Confusion, Volume-depletion</td>
</tr>
<tr>
<td><strong>Laboratories</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glucose (mg/dL)</td>
<td>250-600</td>
<td>600-1,200</td>
</tr>
<tr>
<td>Sodium (mEq/L)</td>
<td>125-135</td>
<td>135-145</td>
</tr>
<tr>
<td>Potassium (mEq/L)</td>
<td>← or ↑</td>
<td>←</td>
</tr>
<tr>
<td>Bicarbonate (mEq/L)</td>
<td>&lt; 15</td>
<td>↔ or ↓</td>
</tr>
<tr>
<td>Creatinine (mg/dL)</td>
<td>Normal or ↑</td>
<td>↑↑</td>
</tr>
<tr>
<td>Arterial pH</td>
<td>&lt; 7.3</td>
<td>≥ 7.3</td>
</tr>
<tr>
<td>Osmolarity (mOsm/mL)</td>
<td>↑</td>
<td>↑↑↑</td>
</tr>
<tr>
<td>Anion gap (mEq/L)</td>
<td>↑</td>
<td>↔ or ↑</td>
</tr>
</tbody>
</table>

### Case Studies: Patient 2

**Presentation**

A.G. is a 64-year-old female brought into the urgent care center by her two daughters, who state they went to visit her this morning and found her lying on the sofa seeming “very tired.” The daughters tell you their mother has type 2 diabetes, high blood pressure, and “heart trouble.” They are unsure of her medicines and have not brought them with her. The patient is not responding to questions in triage and is brought back to an exam room, where you find:

- temperature 96.4°F
- heart rate 58
- BP 96/65 mmHg

You are awaiting a urine sample. A fingerstick glucometer reads >600 mg/dL. She is responsive to your questions initially but becomes less so during the course of your examination.

**Discussion**

This case describes an acute hyperglycemic condition that is similar to DKA; however, ketosis—the hyperosmolar hyperglycemic state formerly known as hyperglycemic hyperosmolar nonketotic coma or hyperglycemic hyperosmolar non-ketotic state—is absent.

As with DKA, there is insufficient circulating insulin and elevation in counter-regulatory hormones. Typically, patients with HHS are elderly and present with a week or more of poor fluid intake resulting in mental confusion and other neurological deficits.

Most often, the lack of oral intake is gradual over days to weeks and is associated with a serious underlying condition. Sepsis, pneumonia, and other infections are common precipitants. Medications that decrease insulin secretion or action (e.g., diuretics, beta-blockers, phenytoin [Dilantin]) and medications that cause insulin resistance (e.g., cortisol, growth hormone, thyroid hormone) may also be responsible.

Although less frequent than DKA, accounting for less than 1% of hospital admissions, mortality from HHS may be high as 15%.9 The dehydration that follows in the setting of relative insulin deficiency results in profound hyperglycemia. The subsequent osmotic diuresis worsens the volume depletion and hyperosmolarity. The hyperosmolarity, in turn, worsens the
Pfizer Helpful Answers can help your patients without prescription coverage get the medicines they need.

No matter their age or income, your patients without prescription coverage can count on us for help. We offer over 100 Pfizer medicines for free or at a savings, and connect patients with the Partnership for Prescription Assistance (PPA) to get help paying for medicines not made by Pfizer. Eligible patients can receive medicines soon after applying, get continuous refills, and easily re-enroll each year. Talk to your Pfizer representative about Pfizer Helpful Answers.

Call 1-866-706-2400
or visit www.PfizerHelpfulAnswers.com

Pfizer Helpful Answers is a joint program of Pfizer Inc and the Pfizer Patient Assistance Foundation™. PFA00244 © 2008 Pfizer Inc. All rights reserved. May 2008.
mental dysfunction. The available insulin is unable to inhibit gluconeogenesis or promote glucose uptake by peripheral tissues but is able to prevent ketosis.

The physical examination reveals hypovolemia in the absence of ketosis (no Kussmaul breathing or acetone-breath). Mental obtundation and coma are common findings, and focal neurological symptoms are possible. Often, patients are unable to mount a fever despite an active infection.

Laboratory abnormalities of HHS overlap greatly with DKA, as both conditions are hyperglycemic, hyperosmolar conditions. The hyperglycemia of HHS is typically more pronounced than that of DKA, with serum glucose levels commonly >1,000 mg/dL. The sodium levels are traditionally higher than in DKA, given the significant intravascular volume loss.

If corrected for the level of hyperglycemia, most HHS patients are frankly hypernatremic. Magnesium, chloride, and phosphate levels are typically normal, while bicarbonate levels are normal or mildly decreased.

Renal insufficiency is more common in HHS than in DKA. Given the lack of ketone and anion production, patients usually are not acidemic, and the anion gap may be normal or slightly elevated. If ketonuria is present, it is usually secondary to starvation. Differences in DKA and HHS are reviewed in Table 1.

Treatment
Treatment for HHS focuses on the two largest derangements: volume depletion and hyperglycemia. Treatment must be approached with care, however, given these patients are usually older than DKA patients and often have comorbidities which may impair their ability to handle rapid fluid resuscitation.

Once basic evaluations have been completed to identify and treat the underlying problem, 0.9% saline is given over the first few hours to remedy the volume depletion. If the serum sodium is >150 mEq/L, 0.45% saline is administered to provide free water.

Given the likely comorbidities and subacute presentation, fluid correction must be tailored for the individual patient in order to prevent rapid changes in serum sodium levels.

After hemodynamic stability is achieved, the patient’s free water deficit is corrected with 5% dextrose in water. Commonly, HHS patients will be 10 liters or more deficient in free water.

Insulin is also a core component of therapy for HHS patients, although the fluid replacement described above will also significantly lower serum glucose levels. An initial bolus of 10 U of IV regular insulin followed by a constant infusion of between 5 U/hr and 7 U/hr is a reasonable initial approach.

As described previously in the treatment of DKA, dextrose should be added to the fluid replacement and the insulin rate should be decreased to between 1 U/hr and 2 U/hr when the serum glucose reaches 250 mg/dL. Patients should be transferred to a hospital ER, but if delays ensue, they can be transitioned to multiple SQ insulin injections once the serum glucose has stabilized and mental condition cleared.

Case Studies: Patient 3
Presentation
L.T. is a 54-year-old male who is brought into your urgent care center after “passing out” in the diner next door. In the examination room, you find:

- He is afebrile
- Pulse 98
- BP 110/68.

The patient is pale and talking about “pancake specials.” An initial fingerstick glucometer reading is 38 mg/dL and a repeat is 34 mg/dL. A bottle of glyburide is found subsequently in a coat pocket.

Discussion
Hypoglycemia is a potentially lethal condition which, if recognized promptly, can be easily reversed. However, uncovering the etiology often requires complex endocrine testing.

The human body has an amazing ability to tightly control blood glucose between 60 mg/dL and 150 mg/dL, despite times of large caloric intake (meals and snacks) and fasting (sleep). An intricate hormonal system governed by insulin and regulated by counter-regulatory hormones such as growth hormone, cortisol, catecholamines, and glucagon allows for this constant precise control which is essential for the brain, given its minimal glycogen stores.

Hypoglycemia is generally defined as a serum glucose level <50 mg/dL. However, there is a wide range of serum glucose levels at which symptoms develop. Although hypoglycemic symptoms vary widely, Whipple’s triad reminds clinicians of the framework for making a diagnosis of hypoglycemia and includes:

- Hypoglycemic symptoms
- A low serum blood glucose level documented while symptomatic
- Reversal of the symptoms with glucose administration.
...to remind her that she has a backup plan after contraceptive failure or unprotected intercourse

- Plan B® emergency contraception is available OTC for consumers age 18 and older
  - Prescription needed for women age 17 and younger
- Plan B® reduces the risk of pregnancy by up to 89% when taken as directed
  - The first tablet should be taken as soon as possible within 72 hours of unprotected intercourse or contraceptive failure
  - The second tablet must be taken 12 hours after the first tablet
- Plan B® is not RU-486; it will not affect an existing pregnancy

Duramed Pharmaceuticals, Inc. is committed to providing healthcare professionals and patients with educational materials. Visit www.go2planb.com or call 1-800-330-1271.

Important Safety Information

Plan B® is indicated to prevent pregnancy following unprotected intercourse or contraceptive failure.

Plan B® is contraindicated in women with known or suspected pregnancy or hypersensitivity to any component of the product. Plan B® is not recommended for routine use as a contraceptive. Plan B® is not effective in terminating an existing pregnancy. Plan B® does not protect against HIV infection and other sexually transmitted infections (STIs). Menstrual bleeding may be heavier or lighter, earlier or later after taking Plan B®. If menses is delayed beyond one week, pregnancy should be considered. Severe abdominal pain may signal a tubal (ectopic) pregnancy. Common side effects associated with the use of Plan B® include nausea, abdominal pain, fatigue, headache, menstrual changes, dizziness, breast tenderness, vomiting, and diarrhea.

Please see adjacent page for brief summary of Prescribing Information.

Plan B® (Levonorgestrel) Tablets, 0.75 mg

Brief Summary (See Package Brochure For Full Prescribing Information)

Rx only for women age 17 and younger

For women age 17 and younger, Plan B® is a prescription-only emergency contraceptive. Plan B® is intended to prevent pregnancy after known or suspected contraceptive failure or unprotected intercourse. Emergency contraceptive pills (like all oral contraceptives) do not protect against infection with HIV (the virus that causes AIDS) and other sexually transmitted diseases.

CONTRAINDICATIONS

Progestin-only contraceptive pills (POPs) are used as a routine method of birth control over longer periods of time, and are contraindicated in some conditions. It is not known whether these same conditions apply to the Plan B® regimen consisting of the emergency use of two progesterin pills. POPs however, are not recommended for use in the following conditions:

• Known or suspected pregnancy
• Hypersensitivity to any component of the product

WARNINGS

Plan B® is not recommended for routine use as a contraceptive. Plan B® is not effective in terminating an existing pregnancy.

Effects on Menstrues

Menstrual bleeding patterns are often irregular among women using progesterin-only oral contraceptives and in clinical studies of levonorgestrel for postcoital and emergency contraceptive use. Some women may experience spotting a few days after taking Plan B®. At the time of expected menses, approximately 75% of women using Plan B® had vaginal bleeding similar to their normal menses, 12-13% bled more than usual, and 12% bled less than usual. The majority of women (87%) had their next menstrual period at the expected time or within ±7 days, while 13% had a delay of more than 7 days beyond the anticipated onset of menses. If there is a delay in the onset of menses beyond 1 week, the possibility of pregnancy should be considered.

Ectopic Pregnancy

Ectopic pregnancies account for approximately 2% of reported pregnancies (19.7 per 1,000 reported pregnancies). Up to 10% of pregnancies reported in clinical studies of routine use of progesterin-only contraceptives are ectopic. A history of ectopic pregnancy need not be considered a contraindication to use of this emergency contraceptive method. Health providers, however, should be alert to the possibility of an ectopic pregnancy in women who become pregnant or complain of lower abdominal pain after taking Plan B®.

PRECAUTIONS

Pregnancy

Many studies have found no effects on fetal development associated with long-term use of contraceptive doses of oral progestins (POPs). The few studies of infant growth and development that have been conducted with POPs have not demonstrated significant adverse effects.

STD/HIV

Plan B®, like progestin-only contraceptives, does not protect against HIV infection (AIDS) and other sexually transmitted diseases.

Physical Examination and Follow-up

A physical examination is not required prior to prescribing Plan B®. A follow-up physical or pelvic examination, however, is recommended if there is any doubt concerning the general health or pregnancy status of any woman after taking Plan B®.

Carbohydrate Metabolism

The effects of Plan B® on carbohydrate metabolism are unknown. Some users of progesterin-only oral contraceptives (POPs) may experience slight deterioration in glucose tolerance, with increases in plasma insulin; however, women with diabetes mellitus who use POPs do not generally experience changes in their insulin requirements. Nonetheless, diabetic women should be monitored while taking Plan B®.

Drug Interactions

Theoretically, the effectiveness of low-dose progestin-only pills is reduced by hepatic enzyme-inducing drugs such as the anticonvulsants phenytoin, carbamazepine, and barbiturates, and the antituberculosis drug rifampin. No significant interaction has been found with broad-spectrum antibiotics. It is not known whether the efficacy of Plan B® would be affected by these or any other medications.

Nursing Mothers

Small amounts of progesterin pass into the breast milk in women taking progestin-only pills for long-term contraception resulting in steroid levels in infant plasma of 1-6% of the levels of maternal plasma. However, no adverse effects due to progesterin-only pills have been found on breastfeeding performance, either in the quality or quantity of the milk, or on the health, growth or development of the infant.

Pediatric Use

Safety and efficacy of progestin-only pills have been established in women of reproductive age for long-term contraception. Safety and efficacy are expected to be the same for postpubertal adolescents under the age of 16 and for users 16 years and older. Use of Plan B® emergency contraception before menarche is not indicated.

Fertility Following Discontinuation

The limited available data indicate a rapid return of normal ovulation and fertility following discontinuation of progestin-only pills for emergency contraception and long-term contraception.

ADVERSE REACTIONS

The most common adverse events in the clinical trial for women receiving Plan B® included nausea (23%), abdominal pain (18%), fatigue (17%), headache (17%), and menstrual changes. The table below shows those adverse events that occurred in ≥5% of Plan B® users.

Table 5: Adverse Events in ≥5% of Women, by % Frequency

<table>
<thead>
<tr>
<th>Most Common Adverse Events</th>
<th>Plan B® Levonorgestrel N=977 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea</td>
<td>23.1</td>
</tr>
<tr>
<td>Abdominal Pain</td>
<td>17.6</td>
</tr>
<tr>
<td>Fatigue</td>
<td>16.9</td>
</tr>
<tr>
<td>Headache</td>
<td>16.8</td>
</tr>
<tr>
<td>Heavier Menstrual Bleeding</td>
<td>13.8</td>
</tr>
<tr>
<td>Lighter Menstrual Bleeding</td>
<td>12.5</td>
</tr>
<tr>
<td>Dizziness</td>
<td>11.2</td>
</tr>
<tr>
<td>Breast Tenderness</td>
<td>10.7</td>
</tr>
<tr>
<td>Other complaints</td>
<td>9.7</td>
</tr>
<tr>
<td>Vomiting</td>
<td>5.6</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Plan B® demonstrated a superior safety profile over the Yuzpe regimen for the following adverse events:

• Nausea: Occurred in 23% of women taking Plan B® (compared to 50% with Yuzpe)
• Vomiting: Occurred in 6% of women taking Plan B® (compared to 19% with Yuzpe)

DRUG ABUSE AND DEPENDENCE

There is no information about dependence associated with the use of Plan B®.

OVERDOSE

There are no data on overdose of Plan B®, although the common adverse event of nausea and its associated vomiting may be anticipated.

Mfg. by Gedeon Richter, Ltd., Budapest, Hungary for Duramed Pharmaceuticals, Inc.

Subsidiary of Barr Pharmaceuticals, Inc.

Pomona, New York 10970

Phone: 1-800-330-1271

Website: www.go2planb.com

Revised AUGUST 2006

BR-0038/11001136

©2008 Duramed Pharmaceuticals, Inc. PLB-A81968B June 2008 Printed in the USA
Symptoms of hypoglycemia fall into two categories: neuroglycopenic and autonomic. Neuroglycopenic symptoms result directly from glucose deprivation in the brain and include confusion, fatigue, loss of consciousness, and seizures. Autonomic responses result from norepinephrine released from postsynaptic ganglion and epinephrine released from the adrenal medulla. Autonomic symptoms include sweating, hunger, tremor, anxiety, paresthesias, and palpitations.

The physical examination in the hypoglycemic patient is significant for pallor and diaphoresis. The heart rate and blood pressure may be elevated; however, this is not a universal finding. Focal neurological signs are possible, especially in elderly patients, and may mimic an acute cerebral event.

The etiology of hypoglycemia is broad and is best considered in three categories:
1. diabetes-related
2. reactive hypoglycemia
3. fasting hypoglycemia, as outlined in Table 2

Diabetes-related hypoglycemia is the most common etiology and results from excessive insulin administration either by error or during times of decreased insulin requirements (e.g., illness, weight loss). Reactive hypoglycemia may be seen in children with uncommon enzymatic defects and adults following gastric bypass surgery. The diagnosis of idiopathic postprandial hypoglycemia (functional hypoglycemia) is more difficult and controversial among the endocrine community, as serum glucose values fall below 50 mg/dL in more than 5% of healthy adults.

Fasting hypoglycemia may result from medications, endocrine conditions, and severe illness. Culprit medications include those related to diabetic ketoacidosis

Table 2. Differential Diagnosis of Hypoglycemia

<table>
<thead>
<tr>
<th>Diabetes-related hypoglycemia</th>
<th>Reactive hypoglycemia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulin</td>
<td>Childhood enzymatic deficiency</td>
</tr>
<tr>
<td>Sulfonylurea</td>
<td>Hereditary fructose intolerance</td>
</tr>
<tr>
<td>Metformin, thiazolidinediones</td>
<td>Galactosemia</td>
</tr>
<tr>
<td>(if combined with above)</td>
<td>Gastric bypass surgery-related</td>
</tr>
<tr>
<td></td>
<td>Alimentary hypoglycemia</td>
</tr>
<tr>
<td></td>
<td>Nesidioblastosis</td>
</tr>
<tr>
<td></td>
<td>Idiopathic</td>
</tr>
</tbody>
</table>

Fasting hypoglycemia

| Critical illness               | Endocrine deficiencies |
| Hepatic, renal, cardiac failure| Addison’s disease |
| Drugs                          | Hypopituitarism |
| Disopyramide                   | Growth hormone deficiency |
| Haloperidol                    | Glucagon deficiency |
| Ethanol                        | Endogenous hyperinsulinemia |
| Pentamidine                    | Insulinoma |
| Quinine                        | Insulin autoantibody |
| Salicylates                    | Ectopic insulin secretion |
| Sulfonamides                   | Non-β cell tumors |
| Propranolol                    | Factitious hypoglycemia |

Table 3. Treatment Summary

<table>
<thead>
<tr>
<th>Diabetic ketoacidosis</th>
<th>1. Confirm diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Insulin: 0.15 U/kg IV insulin → 0.1 U/kg/hr IV insulin infusion → SQ insulin q 4 hrs</td>
</tr>
<tr>
<td></td>
<td>3. Fluids: 1 L NS bolus → 500-1,000 cc/hr NS → 5% dextrose at 10-20 cc/kg/hr when BS &lt;250</td>
</tr>
<tr>
<td></td>
<td>4. Potassium: K should be initiated when the serum K &lt;5.5</td>
</tr>
<tr>
<td></td>
<td>5. Consider: PO4 (if serum PO4 &lt;1) or HCO3 (if pH &lt;7.0)</td>
</tr>
<tr>
<td></td>
<td>6. Triage to ER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hyperglycemic hyperosmolar state</th>
<th>1. Identify inciting event</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Insulin: 10 U IV insulin → 5-7 U/hr IV insulin infusion → 1-2 U/hr IV insulin when BS &gt;250</td>
</tr>
<tr>
<td></td>
<td>3. Fluids: Tailored to presentation, NS or 1/2 NS if serum Na &gt;150, 5% dextrose when BS &gt;250</td>
</tr>
<tr>
<td></td>
<td>4. Triage to ER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypoglycemia</th>
<th>1. Confirm Whipple’s triad</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Glucose: Coherent: tablet; Obtunded: IV glucose (25 g) as 50% solution → 5-10% dextrose</td>
</tr>
<tr>
<td></td>
<td>3. Glucagon: 1 mg IM, SQ (effective in type 1 diabetic patient, ineffective if glycogen-deplete</td>
</tr>
<tr>
<td></td>
<td>4. Monitor or triage to ER</td>
</tr>
</tbody>
</table>
Diabetic emergencies in the urgent care setting

Diabetes treatment, including insulin and sulfonylureas, as well as metformin and thiazolidinediones (if the latter two are combined with other diabetic medications).

Other medications that may result in hypoglycemia include pentamidine, quinine, salicylates, and propranolol. Ethanol-related hypoglycemia results from ethanol’s inhibition of hepatic gluconeogenesis. Commonly, an ethanol drinking binge will result in glycogen depletion in chronic alcoholics who do not have the subsequent ability to complete gluconeogenesis while inebriated. Ethanol-related hypoglycemia is among the most dangerous etiologies, with mortality reports as high as 10%.

A thorough differential of hypoglycemia is provided in Table 2.

Initial evaluation of a patient with hypoglycemia should include testing Whipple’s triad (i.e., does the patient have hypoglycemic symptoms during a time when the serum glucose is documented to be low, and do they resolve with glucose administration?). Artificially low glucose levels—a result of ongoing glucose metabolism after the sample is drawn or elevated blood counts as seen in leukemia—should be excluded. If a low serum glucose is confirmed, other lab values should be collected, including insulin, C peptide, sulfonylurea levels, cortisol, and ethanol levels.

### Treatment

Urgent therapy for hypoglycemia involves the immediate administration of glucose or glucagon.

If the patient is mentally alert, glucose tablets or glucose-rich food such as rice, bread, fruits, or honey may be administered.

If the patient is obtunded, intravenous glucose (25 g given in a 50% solution) should be administered as a bolus followed by a constant infusion of 5% or 10% dextrose.

Glucagon is a reasonable alternative when IV access is not possible, as glucagon can be administered either SQ or IM. Special consideration must be given to subjects with decreased glycopen pools (e.g., starvation patients, alcoholics, anorexic patients), as glucagon acts to stimulate glycogenolysis, and these subjects lack the necessary substrate. Additional monitoring is required for these patients prior to discharge, as hypoglycemia may recur.

Preventing further hypoglycemic episodes requires an understanding of the etiology. Offending medications should be eliminated, and long-acting insulin analogues and sulfonylureas may result in prolonged hypoglycemia. Reactive hypoglycemia may respond to smaller, more frequent meals. Excessive endogenous insulin production requires detailed hormonal examination by an endocrinologist during a 72-hour fast.

A detailed position paper on hypoglycemia diagnosis and treatment was recently released by the American Diabetes Association, and an excellent review of the differential and evaluation is provided by F.J. Service.

### Summary

As diabetes continues to become more prevalent in the U.S., glycemic emergencies may be encountered with increasing frequency in the urgent care setting. Prompt management and treatment is needed to stabilize these patients prior to transfer to the hospital.

### REFERENCES

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 e-mail the relevant materials and presenting information to editor@jucm.com.

FIGURE 1

The patient is an 80-year-old man who presents to urgent care with low back pain of two weeks duration. He is hemodynamically stable and has a normal neurological exam. His personal medical history reveals hypertension, for which he is being treated.

Blood pressure is 140/80, pulse 63.

View the x-ray taken (Figure 1) and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.
The correct diagnosis is aortic aneurysm—which the patient acknowledged already being aware of, and for which he said he was under the observation of a vascular surgeon.

The urgent care clinician’s opinion was that the back pain was not related to the aneurysm. The patient was discharged for follow-up, despite the considerable concerns of clinical staff. However, the patient was insistent that this was a known condition and that he did not want immediate hospitalization.

A post-script: The aneurysm was measured at 6 cm x 7.5 cm, which is definitely sufficient to consider surgery.

Acknowledgment: Case presented by Nahum Kovalski, BSc, MDCM.
Urgent Care Association of America

Congratulates
the following
centers who
were recently
presented their

Awards
of Distinction

Western New York Immediate Care
Amherst, NY

For more information on site accreditation for your center, visit www.ucaoa.org, contact the Accreditation Division info@ucaoa.org, or call 877-698-2262.
On UTI in Children, New Patterns in Old Diseases, and Late PCI After MI

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.

Prevalence of UTI in Children

Key point: Prevalence is highest in infants younger than 3 months, girls with fever, and uncircumcised boys.


During the past decade, many studies have assessed the prevalence of urinary tract infection (UTI) in children with fever. Investigators conducted a meta-analysis of data from 18 such studies (involving 22,919 children with UTI symptoms) to determine pooled estimates of UTI prevalence in children.

Prevalence rates of UTIs in febrile females were:
- 0-3 months: 7.5%
- 3-6 months: 5.7%
- 6-12 months: 8.3%
- >12 months: 2.1%

Among boys:
- 3 months, prevalence of UTI was 8.7%
  - uncircumcised boys: 20.1%
  - circumcised boys: 2.4%
- 3 to 6 months, prevalence was 3.3%
- 6 to 12 months, prevalence was 5.4%
  - uncircumcised boys: 7.3%
  - circumcised boys: 0.3%

These pooled estimates can help clinicians select children who might benefit from diagnostic evaluation.

UTIs are common in infants younger than 3 months. After age 6 months, prevalence is highest in febrile girls and uncircumcised boys.

[Published in J Watch General Med, April 22, 2008—Howard Bauchner, MD.]

Mumps and Varicella: On the Rebound?

Key point: Vaccine failures spell the need for ongoing monitoring and fine-tuning of guidelines.


Many decades into the vaccine era, we still are being surprised by new patterns in old childhood diseases. Two studies address these changing patterns.

In one study, researchers examined the largest U.S. mumps outbreak in two decades, which erupted in eight midwestern states in 2006. Almost 7,000 people were affected, with estimated incidence in 18- to 24-year-olds that was higher than in all other age groups combined.

Most of those in that age group had acquired the disease on college campuses, and most had received two childhood doses of mumps vaccine. To explain secondary vaccine failure on this
large a scale, the researchers hypothesized a combination of waning vaccine immunity, lack of natural boosting by circulating wild virus, and sudden introduction of disease, possibly from a simultaneous large outbreak in the U.K.

In another study, researchers addressed the continued occurrence of varicella cases despite widespread vaccination. Researchers examined postvaccination antibody in 148 healthy children; only 76% seroconverted after a single dose of vaccine, a rate of primary vaccine failure significantly higher than that in many previous reports in which a different antibody assay was used. These data support the booster-dose varicella vaccine recently recommended by the Advisory Committee on Immunization Practices.

Despite effective and widely implemented vaccines, childhood diseases still circulate and raise new questions, as patterns of herd immunity and background circulating disease evolve. Practitioners should remember to keep all the vaccine-preventable diseases on their diagnostic radar.

[Published in J Watch General Med, April 22, 2008—Abigail Zuger, MD.]

Late Percutaneous Coronary Intervention After MI May Offer Benefit

Key point: PCI between 12 hours and 60 days after acute MI had better long-term survival & cardiac function than medical therapy.


Reperfusion of the infarct-related artery in stable patients >12 hours after acute myocardial infarction is controversial because of contradictory results from mostly small observational and randomized studies.

To examine this issue further, researchers conducted a meta-analysis of pooled data from 10 randomized controlled trials involving 3,560 stable acute MI patients, approximately 60% of whom were enrolled in the Occluded Artery Trial (OAT). The average median time from acute MI to percutaneous coronary intervention was 12 days, and the average median follow-up duration was 2.8 years.

The primary endpoint, all-cause mortality, was better with PCI than with medical therapy: 112 deaths (6.3%) vs. 149 deaths (8.4%), respectively (odds ratio, 0.49; P=0.03). PCI was also associated with greater improvement in LV ejection fraction (4.4%; P=0.009) in seven studies that assessed such changes.

Nonsignificant benefits for PCI were observed for other endpoints: death or MI (OR, 0.70); death, MI, reinfarction, or rehospitalization (OR, 0.66); and nonfatal MI (OR, 0.86). The benefit of late PCI was greatest in patients with residual ischemia and myocardial viability and was most apparent in longer term follow-up.

Taken together, these studies demonstrate that late PCI of the infarct-related artery after acute MI confers a significant survival and remodeling benefit. The findings contrast with those from the largest single study (OAT), which showed no benefit with this strategy but excluded patients with moderate to severe ischemia and had a median follow-up of only 34 months.

[Published in J Watch Cardiol, April 16, 2008—Howard C. Herrmann, MD.]
Practice Management

Minding Your (Urgent Care) Ps and Qs

Urgent message: Appropriate attention to place, product, price, promotion, people, and quality help ensure the right approach to facilitating the success of your practice.

Alan A. Ayers, MBA, MAcc

Bartenders in British pubs have a custom of reminding eager patrons to “mind their Ps and Qs”—to watch how many pints and quarts they consume, so as to avoid creating a tab they cannot pay.

To assure a satisfactory return on their investment, urgent care entrepreneurs must likewise mind their “Ps and Qs”—in this case, the success factors defined as place, product, price, promotion, people, and quality.

Place

As a healthcare choice designed to meet patient needs of convenience and accessibility, an urgent care practice is analogous to retail, where the first rule is “location, location, location.”

Signage and visibility are the most frequent reasons why consumers select an urgent care center. Even when a center advertises or relies on word of mouth, people must know where to find it and be able to get there easily. That means it is important for you to identify a high-traffic site near patients’ home or work, choose signage that’s clearly visible to motorists, and ensure there is ample parking that’s easily accessed from each direction.

Good signage is also an advertising investment that provides a constant reminder that the center is open for business.

For a center that is challenged by signage or visibility constraints, there are creative ways to draw attention, including temporary banners, promotional inflatables, strategically placed yard signs, balloons at the entrance, or permanent directional signage on the road. It’s important to note that such tactics often require landlord approval and may be subject to municipal permitting. Another option is to lease a nearby billboard to serve as an extension of the center’s signage while also promoting an advertising message.

When an urgent care center is a tenant in a medical complex or shopping center, the availability of specially marked parking spaces for urgent care is an added advantage; a full parking lot often turns off prospective patients who perceive long wait times. Dedicated parking also assists injured patients with accessing the center. If the center is open in the evening, the parking lot should be well lighted and there should be a clearly illuminated “Open” sign visible from the road.

Product

While urgent care is generally defined as “treatment for episodic subacute illness and injury,” individual centers differ as to the capabilities included in this scope.
and even tap into the occupational medicine market.

By contrast, a center that focuses primarily on low-acuity illness may face lower reimbursement and look to services such as prepackaged pharmaceuticals and expanded lab offerings to differentiate from retail health clinics in grocery and drug stores.

A center that is not well-balanced in its product offering will be more subject to seasonal fluctuations in volume and income. Depending on region, urgent care usually sees more injuries from outdoor sports and construction sites in the summer and more illness during the winter cold/flu or spring allergy seasons.

To flatten seasonality, leverage fixed costs, and attain higher profit goals, many urgent care centers are implementing ancillary services ranging from laser aesthetics to immigration physicals. Ancillary product offerings should complement and generate cross-traffic for core urgent care services, be consistent with provider skill and competence, fit within current facility or staffing constraints, and—most important—meet a patient need.

Price

Price determines how much volume a center will generate, as well as how much a center can afford to pay for rent, furnishings, equipment, people, and marketing. Ideally, price is a function of costs plus desired profit. But when competition exists and demand is controlled by third-party payors who offer contracted rates on take-it-or-leave-it terms, an individual urgent care center often has little control over what it ultimately collects on fee-for-service visits and must plan its business accordingly.

Insurance usually reimburses the “lesser of contract or billed charges;” to avoid leaving money on the table, an urgent care center should charge no less than the highest reimbursement contract for each CPT code. In addi-
MINDING YOUR (URGENT CARE) Ps AND Qs

"Urgent care is somewhat of an impulse purchase; the key is to be the first option people think of."

A program should be in place to evaluate the quality of provider documentation to assure it justifies the level of service charged. Physician coding that skews too low may be foregoing potential revenue, while providers who code too high may be creating legal risk.

High-deductible health plans and employers dropping health benefits are creating savvy healthcare consumers who migrate to the lowest cost, most effective providers. To assure pricing is competitive for self-pay patients, an urgent care operator may call competing urgent care centers and ask how much they charge for a basic office visit and what discounts are provided.

Price sensitivity varies by market, with patients in vacation destinations or affluent areas tolerating prices up to 200% of Medicare, while patients in more competitive markets are demanding discounts of 15% to 50% for cash payment at time of service. To bring pricing parity to self-pay patients, some urgent care centers offer discount card programs with a set “member” price per visit or they “bundle” CPT codes into a flat advertised fee. Regardless of the discount method, consumers are most concerned about the total cost of the visit, including time spent.

Promotion

Unlike many consumer products that are used every day, the need for urgent care arises only once or twice a year when illness or injury occurs. Because urgent care is somewhat of an “impulse” purchase, the key is to be “top of mind”—the first option people think of whenever they have a need.

Long term, this position is generated by word of mouth and loyal relationships from good customer service, but when attracting patients to a new practice, advertising is critical. Once established, advertising serves as a defensive mechanism to remain top of mind versus other alternatives.

Successful urgent care advertising targets the most desired patient segments, at the point of their need, with a relevant message. For example, if a market has a busy winter cold/flu season that backs up primary care offices, becoming top of mind involves advertising the convenience your practice offers patients, such as extended evening and weekend hours, insurance participation, and short wait-times. To strike when the iron is hot, this advertising should appear just prior to and during the period of greatest demand for these services.

The most effective advertising messages and media differ by community, but typically combine grassroots and commercial tactics. For example, if an urgent care practice wants to see more pediatric patients, then sponsorship of youth athletics, “mothers’ day out” programs, and grammar school PTAs should be augmented with paid advertisements in community newspapers, movie theaters, and at venues where mothers (the primary healthcare decision makers in most households) and children tend to congregate.

By contrast, if a center is looking to raise its average revenue by treating higher acuity visits— including more orthopedic injuries and procedures— then it should advertise in publications targeting the local building trades or at venues for recreational sports.

Before investing in any advertising, outline a clear business objective—including volume and revenue goals—and test each campaign after the fact to assure that it met expectations. Retailers call the impact of advertising “sales lift.”

Advertising that doesn’t directly generate visits (or the types of visits desired) should be reconsidered.

People

People—providers and staff—are not only the greatest expense in an urgent care center, but are also chiefly responsible for the successful delivery of medical care. Therefore, it’s no surprise that recruiting, developing, managing, and retaining good people are among the top operational concerns in urgent care.

The most visible person in an urgent care center—to both patients and staff—is the medical provider. To assure satisfied customers, it’s critical that a provider have good patient manner and communicate effectively with the staff. The provider often sets the tone for the entire practice; even if a provider is good with patients, if he or she has difficulty working with medical assistants, technicians, or business managers, the morale and productivity of the entire practice will suffer. Poor morale almost always results in poor customer service.

Urgent care providers should be trained and ready to treat the range of cases that typically present at a center. If a provider is not comfortable treating children, conducting gynecological exams, or suturing, then the practice may suffer lost revenue and negative word of
mouth from disappointed patients who expect those needs to be met. If a provider doesn’t buy into new initiatives, neither will the staff.

After the provider, the most important position from a customer satisfaction and financial standpoint is the front office. Not only is the front office the first and last encounter for patients, but increasingly the front-office staff serves as patient financial counselor, explaining to patients the insurance benefits offered by their employers. Failure at the front office to correctly enter data, verify insurance eligibility, or collect copays and deductibles can have an adverse effect on the bottom line and lead to considerable work in back-end billing and collections.

Yet, despite the correlation of a well-run front office to profitability, the front office is often the lowest paid, least trained, and lowest skilled position in an urgent care center. It’s a stressful position that requires juggling multiple simultaneous demands—patients in the waiting room, a ringing telephone, and needs from the back—while also bearing the brunt of customer dissatisfaction with wait times or financial policies.

Development of the front-office position, including training in group health insurance and customer service, streamlining processes, and implementing technology to take over routine tasks, can have an immediate impact on the entire practice. For example, if the front office spends an inordinate amount of time giving directions to the center, an automated phone system could allow the staff to focus more time on caring for the patients on site.

To relieve pressure on the front office, an urgent care center should consider cross-training front-office and medical staff. By training a medical assistant to work the front desk or a radiological technician to work as a medical assistant, a center can reduce one full-time employee.

To further reduce payroll costs, staffing should be matched to average volume including time-of-day and seasonal deviations. If a center’s volume falls off during the afternoon or in the summer months, then consider supplementing a smaller core staff with seasonal or part-time resources to pick up during the busy times. Some centers that are busiest in the morning are able to employ a higher level of staff—such as RNs and LPNs with young children in school—who are willing to work part-time for less pay if they can be home by 3:00 p.m. These same nurses may want the summer off when children are out of school, which also coincides with seasonality.

Quality

The term *quality*, when applied to urgent care, can mean anything from clinical documentation review to the cleanliness and maintenance of facilities and equipment. Perhaps the most important definition of quality is the degree to which an urgent care center meets the expectations of patients (Figure 2).

Unlike a car or other product where consumers can judge quality from tangible, visible attributes, it’s difficult for patients to objectively evaluate the quality of medical care. Instead, they judge the quality of an urgent care center based on how it “feels” to be a patient, and will differentiate providers based on their comfort with the facility, how efficiently they move through the process, and, most important, the degree of respect, care, and communication from staff and providers.

Regardless of the quality of medical care, if these “soft” factors are lacking the patient will consider it a poor-quality experience. Therefore, to assure a high-quality experience that results in return visits and positive word of mouth, an urgent care practice should consider the patient in every action related to the five Ps.
As discussed previously in JUCM, a clinic that seeks to broaden its clinical services—and, thus, its revenue streams—by offering comprehensive urgent care occupational medicine (UCOM) services will provide access to five distinct, but complementary, product lines:
- health surveillance
- injury/loss management
- prevention services
- rehabilitation
- on-site services.

This article will focus on injury/loss management and rehabilitation.

**Loss Management/Injury Management**

A loss management and injury management product line allows UCOM practices to enter into contracts with employers who agree to send their work-related injuries to the UCOM facility for injury care.

Before treating any injured workers, however, the UCOM practice must establish a client company profile based on the company’s specific requirements.

In addition, conducting an onsite analysis will provide information about the work environment, such as specific hazards, functional job requirements, restricted duty opportunities, the company’s safety program, the designated company contact for feedback on work-related injuries, and other data identifying specific requirements for reporting and billing.

*Injury management* focuses on the immediate care of the injured worker and establishes the causality of the injury. Care is provided, and specific written guidelines are provided for the injured worker’s return to work.

*Loss management* provides an additional focus on preventing further injuries by evaluating the causality of the injury, providing specific recommendations for prevention by worksite redesign, education of employees, or additional prior-to-hire screenings to ensure that prospective employees have specific physical capacity to perform job tasks.

This component establishes a partnership between the UCOM practice and the client company, in which the two parties work together toward a safe work environment. A contract is negotiated and signed, with the client company paying administrative fees to the UCOM above the cost of any care provided to injured workers.
The goal of this approach is to provide fast, efficient, urgent care. While knowledgeable physicians and professional staff provide the hands-on care for the injured worker, the broader UCOM program develops treatment standards to ensure injury management is standardized to provide emergency care, follow-up referrals, and company feedback for injured workers’ medical data.

Outcomes are defined in conjunction with the standards for monitoring and documentation of value to the client company.

A UCOM provider (typically, a nurse practitioner or physician assistant) should be identified as the primary treating clinician in the treatment facilities; this facilitates fast tracking of all injured workers through the system in less than 45 minutes. A customer service orientation of all personnel that interact with the injured worker will assure a positive experience for the worker. This approach creates an excellent opportunity for the UCOM practice to increase its referral base.

The UCOM program will provide a care manager/injury coordinator to follow the case of the injured worker through the continuum of care. The coordinator provides education to the worker regarding the extent of injury, follow-up referral appointments, communication with the client company about physical restrictions for temporary alternate work, and facilitates communication with the employer and the insurance company. Claims management is established, and meetings scheduled with the client company, insurance company, and injury coordinator to discuss the status of the injured worker who is out on lost-time injuries.

A referral network of specialists must be established for the follow-up care of the injured worker.

Central data management establishes a database for the practice, and access of information from the employer to the practice via the Internet.

The provision of injury management services requires several crucial components for success:

- clinical staff able to provide fast, efficient treatment
- physicians familiar with local workplaces (including job functions, hazards, and relevant regulations)
- the ability to identify appropriate physical restrictions for the injured worker
- case management of the injured worker from the time of injury through return to full duty
- efficient completion of forms and insurance reports to facilitate the claims process
- a mechanism to provide feedback to the employer after the injured worker has been treated
- a cost-efficient charge system for all care provided
- use of a billing system that designates the appropriate process for each of the employers contracting for occupational injury management
- a system for referring the injured worker to a rehabilitation professional who is occupationally oriented
- a referral network of specialists who agree to facilitate appointments, provide feedback to the case management system, and complete required forms.

**Industrial Rehabilitation**

Rehabilitation is another key aspect of a comprehensive UCOM product line. This service may be provided in-house, through referral arrangements, or via contractual relationships with outside vendors.

The optimal model is to have a rehabilitation professional (physical therapist/occupational therapist) on staff to evaluate, treat, and manage injured workers based on established protocols.

The first step in the rehabilitation of an injured worker is the preparation of an evaluation and treatment plan, immediately followed by the application of specific treatment modalities. This approach places the injured worker on a fast track to return to work.

Collaboration between the primary treating provider and the rehabilitation professional has been shown to markedly decrease treatment times and cost for employers. Integrated with the health surveillance product line for pre-hire screenings, this service identifies the functional abilities required to perform the job.

At minimum, components of the rehabilitation component for the UCOM practice should include:

- initial evaluation at the time of injury
- treatment modalities for injured workers, with the focus on immediate post-injury interventions and an “industrial athlete” mentality (i.e., an awareness that the worker must be sufficiently rehabilitated to carry out the tasks required by his or her specific job for a long as requires; this may be quite different from being deemed generally “ready to work”)
- job analysis and functional screening
- identification of temporary work restrictions
- patient education for injury prevention
- outcomes developed, monitored, and reported to client companies.

Combined with a health surveillance product line (JUCM April 2008), establishing a loss management/injury management and rehabilitation initiative will help create a firm foundation for your occupational medicine practice.
HEALTH LAW

Send Lawyers, Guns and Money: Asset Protection for Providers and Urgent Care Owners

JOHN SHUFELDT, MD, JD, MBA, FACEP

Well, I started an urgent care
The way others seem to do
How was I to know
When I set it up wrong, I’d be screwed

Now I’m transferring assets to Liechtenstein
I’m a desperate man
Send lawyers, guns and money,
The sh** has hit the fan...

Although I am sure I have been described as an Excitable Boy, God knows I am no Warren Zevon. However, ol’ Warren correctly described the mindset of most providers and business owners when their personal assets are attached to a judgment.

This article tackles the complex subject of asset protection. When an acquaintance of mine (an attorney) learned that he was going to be named in a suit alleging corporate misdeeds, he immediately spent more than $50,000 setting up a complex array of offshore trusts and other asset-protection vehicles.

His actions were not merely unnecessary, they were ultimately deemed to be fraudulent by the court. He had failed to recognize the reality that a transfer made with intent to hinder, delay, or defraud a creditor is considered to be a “fraudulent transfer” and will be unraveled by the court. In some states, even if the transfer is made before the suit but after the alleged act has occurred, the court may determine the transfer fraudulent and declare it void.

The take-home point is that once a suit has arisen, it is generally too late to protect your assets. The most effective form of protection is prevention, and the process must start before the physician and/or business owner is in a position of even perceived threat.

Trying to protect all of your assets is another defensive action that will often be viewed as fraudulent in the face of a lawsuit. The idea is to have some level of protection for some portion of your net worth. Protecting, or trying to protect, every asset often leads to the court unraveling the whole scheme.

I once had a salesperson try to sell me an extremely complex array of offshore trusts into which I could place my business, home, etc. On its face, it made sense and I could follow the logic. Next, he tried to sell me life insurance which would pay any estate tax ramifications in the event that I died. Here is where it fell apart for him. He was earning fees on setting up the trust, selling the insurance, and performing the yearly statutory requirements.

Offshore trusts are often costly to set up and administer and can be fraught with complexity. Unless you have very special circumstances, typically they are unnecessary.

The most important point is to find a reputable attorney whose entire practice is devoted to trust and estate work. Contact your state’s bar association for references, speak with a number of attorneys before picking one, and check her references prior to engaging her as your counsel. Consider this homework your “ounce of prevention.”

Many states have laws which apply to exemptions for certain classes of assets. For example, primary residence, annuities, and life insurance policies generally fall into the protected class of assets. This is a public policy exemption. The state does not want the debtor to fall below some minimal existence and financial well-being so as to prevent them from becoming a financial burden to the state.

However, the homestead protection in Arizona, for exam-
There is an inverse relationship between the amount of control and the level of protection the trust affords.

An irrevocable trust should, theoretically, offer some degree of protection. However, if the physician retains excessive control over it, even an irrevocable trust is vulnerable to attack. One option for defending the trust is to appoint independent trustees and protectors. Even with this measure of protection in place, the provider should forgo the option of funding the trust with any business entities he directs.

Asset protection and the law—and exemptions surrounding it—are extremely complex inasmuch as they vary from state to state and involve bankruptcy laws, trusts, real and personal property, family law, tax planning and gift and estate expertise.

In addition, there are many fraudulent schemes involving offshore trusts into which the unsuspecting can be drawn by the unscrupulous. More than one physician has set up an offshore trust and deposited hard-earned money into it, only to find their earnings vanished. I suppose this could be considered a “win” in a perverse way—at least the creditors were unable to get at the funds. However, I do not think that this was the kind of protection the unsuspecting physicians had in mind when they established their trusts.

Asset protection is a challenging area fraught with complex and interconnecting laws and regulations. Only providers and urgent care owners who are proactive and diligent and who obtain appropriately qualified counsel will be well protected in the event of an attack on their assets by a creditor.

Editor’s note: JUCM would like to congratulate Dr. Shufeldt for receiving a Bronze Award in the American Society of Healthcare Publication Editors 2008 Annual Awards Competition. The Health Law column was recognized in the category of Regular Column: Contributed, which (as the name implies) was open to columns that appear regularly in healthcare-related publications in the U.S. and that are written by non-staff authors.

We’re proud of our association with Dr. Shufeldt, and that ASHPE has formally recognized his contributions to the journal. We appreciate them, as we do the contributions of all our authors.
Proper Coding for Skin Tag Removal, Workers Comp Issues, and Off-Hour Visits

David Stern, MD, CPC

Q. Are you able to bill the following two codes together with a modifier: 17110 (Destruction [e.g., laser surgery, electro surgery, cryosurgery, chemosurgery, surgical curettement], of benign lesions other than skin tags or cutaneous vascular proliferative lesions; up to 14 lesions) 17111 (15 or more lesions)?

A. These are mutually exclusive codes. You can use 17110 if the physician destroys 14 or less benign lesions (usually warts). If you destroy 15 or more lesions, then use 17111. You may not report both these codes for the same patient on the same day.

Q. Do you use this same method for coding CPT codes 11200 and 11201 for removing skin tags?

A. The CPT coding is quite different for removal of skin tags. For skin tag removal, you code 11200 for removing the first 15 lesions, and then you add code 11201 for removal of each additional 10 lesions. Thus, the payors expect you to use 11200 along with 11201, and you many even code 11201 multiple times on a single visit.

Q. How do I code for the removal of 24 skin tags?

A. For removal of the first 15 skin tags, use code 11200, then for removing the additional nine skin tags code 11201-52. The modifier-52 signifies “reduced services,” indicating that the physician removed additional skin tags, but did perform a portion (i.e., removal of nine, rather than 10, skin tags) of the work that the actual code includes.

Q. If we shave off a skin tag, should we code the procedure with CPT code 11300 (shaving of epidermal or dermal lesion...)?

A. You should use code 11200 for any sharp excision (including shaving) of skin tags.

Q. In addition to the diagnosis code for the injury, do I use V71.3 (observation following accident at work) for each follow-up visit for injuries covered under the workers compensation act of my state?

A. No; this code is not intended for use with routine follow-up visits for workers compensation cases. You should reserve the code V71.3 for injuries or possible injuries that require observation of the patient, rather than for rechecks of work comp injuries. I am unaware of any payors that are requiring providers to use this code. This code could be used, for example, for a patient who needed to be held for observation after contact with a pesticide or other toxic substance, such as carbon monoxide.

Q. If a patient is covered under the workers compensation act and is treated for two separate injuries, can you bill two E/M codes for the separate injuries or is it just one billing for multiple injuries? For example, an employee injured her neck while lifting a patient, and she injured her ankle when she tripped over a leg of a chair.

A. According to CMS guidelines, you would only code a single CPT. However, many work comp payors will accept completely separate documentation for two separate visits and two separate E/M codes for these visits if these visits are for separate work comp injuries.

David Stern is a partner in Physicians Immediate Care and chief executive officer of Practice Velocity. Dr. Stern and Frank H. Leone, MBA, MPH, are scheduled to speak at a pair of half-day seminars, Urgent Care: 40 Ways to Increase Profitability, in Tampa and Boca Raton, FL July 25 and 26. For more information about the seminars, call Megan Montana at (800) 666-7926, extension 13. Dr. Stern may be contacted at dstern@practicevelocity.com.

Continued on page 36.
Avoiding something negative rather than buying on appeal appears to be a very real part of buyer decision-making. Indeed, with sufficient probing, most prospects harbor inner fears that can be successfully addressed during the sales process.

Buyers of urgent care occupational health services generally have two motivations: helping their company save money and making their own life easier. Most occupational health sales emphasize the former: reduce injury/illness incidence and associated lost work time and save the employer money. Consequently, sales efforts focus on just that: how your clinic can proactively save the employer money.

The “making the buyer’s life easier” motivating factor is often ignored. But many people are inherently parochial. They are concerned about their finite time, their daily burdens, and their professional success. It is likely you minimize this factor or ignore it altogether. You should strive to determine the relative importance of professional vs. personal motivation and structure your sales approach accordingly.

Professional Factors
1. Save the company money.
2. Enhance worker health status.

Parochial Personal Factors
1. Save the individual buyer time.
2. Save the prospect “hassle.”
3. Make the prospect look better.

Generally, you should incorporate both professional and personal factors in a benefit statement. For example:

“I believe our clinic’s approach would provide your company with a compelling opportunity to reduce your lost workday experience and enhance the health of your workforce. Further, it should make life easier for you, since our clinic provides the tracking, reports, and verbal updates that you have been generating piecemeal.”

Prospects run the gamut of personality types from those who genuinely place the welfare of their company above all else to those who are card-carrying members of the “me, myself, and I” crowd. You should assess just where each prospect seems to fall on this continuum and position your sales approach accordingly.

The key to a successful sales encounter involves the application of three classic communication principles: ask the right question(s), listen, and probe.

Asking the right questions will help you to readily identify a pressing problem that can be placed on the table for solution. Typically, a sales professional asks only about professional problems, i.e., “What is your company’s most significant health and safety problem?”

As part of this process, they should also investigate the potential personal ramifications of these professional problems. For example:

1. “What is the most frustrating aspect of your job?”
2. “What activity causes you to lose the most amount of valuable time?”
3. “When it comes to workers’ compensation costs (or workplace health and safety) what do you personally need to achieve to really be successful?”

Such questions can serve two valuable functions:

1. You can usually place the prospect on a pretty reliable place on the “care about my company vs. care about myself” continuum. If the prospect does not offer much in response to the preceding questions, there is a strong likelihood that you can safely retreat to the “best for the company” arena.

Frank Leone is president and CEO of RYAN Associates and executive director of the National Association of Occupational Health Professionals. Mr. Leone and David Stern, MD, CPC are scheduled to speak at a pair of half-day seminars, Urgent Care: 40 Ways to Increase Profitability, in Tampa and Boca Raton, FL, July 25 and 26. For more information about the seminars, call Megan Montana at (800) 666-7926, extension 13. Mr. Leone may be contacted at fleone@naohp.com.
Conversely, prospects that bring up personal challenges are more likely to be responsive to solutions that help them (i.e., save them time and/or make them look good).

“You should not minimize the potential importance of a prospect’s self-interest.”

2. You now not only know that your solution should include an appeal to their self-interest or survival, but you have a pretty good line on what their personal “hot buttons” are. The sales process is all downhill from there.

Once the importance of personal issues has been uncovered, you should craft your benefit statement accordingly. In most instances you should address both the professional impact and personal impact sides. The art comes in determining the respective emphasis to place on each side of the continuum.

For example:

- **Heavy “company” orientation**
  “I am confident that our unique, computerized focus on return-to-work outcomes will provide your company with the best chance to reduce unnecessary costs and enhance the health status of your workers.”

- **Company/personal blend**
  “I am confident that our approach serves two vital purposes: we emphasize early return-to-work, thus reducing unnecessary lost work time and your workers’ compensation-related costs while allowing you to spend more time addressing other important issues.”

- **Heavy personal orientation**
  “I believe that our injury/illness prevention programs and focus on early return-to-work will dramatically reduce the time that you have to spend on such cases, thus providing you with more time for other matters and making your life a lot easier.”

In summary, you should not minimize the potential importance of a prospect’s self-interest. Learn to assess the degree of such self interest, and craft recommendations and benefit statements accordingly.

---

**Q & A**

**Q.** When researching our corporate A/R, I found a pattern of drug screens being skipped over for payment. Most of the drug screens that were not being paid were “post-accident” drug screens affiliated with a workers compensation visit. We have never billed workers compensation insurance for drug screens, but usually charge it on a separate ticket and bill either the lab or the company. Does workers compensation insurance normally pay for drug screens associated with an injury visit? Do they have to be billed on the workers compensation claim?

- Question submitted by Julie Galens, Accent Urgent Care & After Hours Pediatrics, PA, Cary, NC

**A.** You are absolutely right! Drug screens should not be billed to a work comp carrier and should be billed directly to the employer (or payor designated by the employer) for these tests. Generally, these are invoiced separately from worker’s compensation claims on a monthly invoice that includes all employer-paid services for that specific employer. Employers usually (but not always) want these incident testing drug screens to be invoiced along with other employer-paid services, such as post-offer physicals, ethanol breath tests, etc.

If you are billing with this method and not receiving payment, check with the corporate clients, confirm that they do want you to perform post-accident drug screens, and inform them that if they want you to continue performing this service, they must pay their claims on a timely basis.

**Q.** My doc (urgent care) thinks that Medicare may now be allowing 99051 (evening/weekend/holiday code) in 2008. Is this true? I spent 45 minutes on the phone with Medicare this afternoon and they didn’t seem to know.

- Name withheld, Indiana

**A.** For Medicare, nothing has changed; Medicare does not reimburse for 99051. Do not bill this code to Medicare.

Your doctor, however, may have been referring to Indiana Medicaid, which will reimburse for this code. The Indiana State Medical Society explains the appropriate billing code for evening, weekend, and holiday hours as follows:

“Procedure code 99051—Service(s) provided in the office during regularly scheduled evening, weekend, or holiday office hours, in addition to basic service, providers may bill a maximum of one unit per patient per day. Evening hours are defined as routinely scheduled after 5 p.m. in the prevailing time zone. Providers may only bill for the following holidays, which represent days when physician offices are generally closed for the day: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When billing for 99051, please document in the medical chart the time, date, or holiday, as applicable.”
SEATTLE, WASHINGTON – URGENT CARE

Live the good life! As a MultiCare urgent care physician, you will benefit from a flexible, rotational, and “on-call” shift schedule with awesome work-life balance. Multispecialty medical group seeks BE/BC family medicine, IM/Peds or ER physician for a full- and part-time positions.

All urgent care clinics are located within 40 minutes of downtown Seattle. Integrated inpatient/outpatient EMR, excellent compensation/benefits, flexible shifts, and system-wide support. Take a look at one of the northwest’s most progressive health systems. Year round temperate climate affords outdoor enthusiasts endless recreational opportunities, such as hiking, biking, climbing, skiing, and golfing. For more information call (800) 621-0301, or email your CV to MultiCare Health System Provider Services at blazenetrails@multicare.org; or fax to (866) 264-2818. Web site: www.multicare.org. Refer to opportunity #513-623. “MultiCare Health System is a drug-free workplace”.

OUTSTANDING OPPORTUNITY IN BEAUTIFUL COLORADO on front range approximately one hour north of Denver. A board certified or board eligible Family Practice or ER physician is needed to join existing busy Urgent Care departments within a multispecialty group practice. No call or holidays. Highly competitive compensation, outstanding benefits. Clinic service area over 350,000, across from tertiary care hospital, largest multispecialty clinic in northern Colorado. Reply rltsimons@greeleymedclinic.com or fax 970-350-2478.

URGENT CARE IN LAKELAND, FLORIDA seeks BE/BC physician. Must be comfortable with pediatrics and minor adult care. Excellent salary, benefit package, and bonuses. Future partnership opportunity #513-623. “MultiCare Health System is a drug-free workplace”.

URGENT CARE IN LAKELAND, FLORIDA seeks BE/BC physician. Must be comfortable with pediatrics and minor adult care. Excellent salary, benefit package, and bonuses. Future partnership opportunity #513-623. “MultiCare Health System is a drug-free workplace”.

URGENT CARE – FAMILY MEDICINE – STUART, southeast Florida. BC/BE family medicine physician, competitive salary with productivity bonus, malpractice insurance fully covered with great benefits, 401(k) and flexible work schedule. Martin Memorial Health Systems is a not-for-profit, community based healthcare organization comprised of two hospitals, numerous physician practices and ambulatory care clinics throughout Martin and St. Lucie Counties on Florida’s Treasure Coast. Martin County offers a great quality-of-life with excellent schools. Not J-1 or H1B eligible. Visit our Web site: www.mmhhs.com; and email your CV to: jeooneslain@mmhhs-fi.org.

BAYBERRY, CALIFORNIA – EXCEPTIONAL opportunity for qualified family medicine physician for ED services. Stable group with excellent reputation seeks BE or B/E provider full-time. Excellent compensation, facility and colleagues. Please contact Terry Billard at (661) 323-5918; or fax CV to Emergency Medical Services Group, (661) 323-4703. Email: HLTGUY@aol.com.

执念于生存机会在美丽的科罗拉多，位于丹佛市附近，为一个半小时的路程。一个董事会认证或董事会认可的家庭实践或急诊科的医生是需要加入现有的繁忙急诊科部门在多学科组的实践。没有轮班或假期。高度竞争力的补偿，优秀的福利。诊所服务区域超过350,000人，靠近二流医院，最大的多学科诊所在美国科罗拉多州。回复rltsimons@greeleymedclinic.com或传真970-350-2478。

URGENT CARE IN LAKELAND, FLORIDA seeks BE/BC physician. Must be comfortable with pediatrics and minor adult care. Excellent salary, benefit package, and bonuses. Future partnership opportunity #513-623. “MultiCare Health System is a drug-free workplace”.

URGENT CARE – FAMILY MEDICINE – STUART, southeast Florida. BC/BE family medicine physician, competitive salary with productivity bonus, malpractice insurance fully covered with great benefits, 401(k) and flexible work schedule. Martin Memorial Health Systems is a not-for-profit, community based healthcare organization comprised of two hospitals, numerous physician practices and ambulatory care clinics throughout Martin and St. Lucie Counties on Florida’s Treasure Coast. Martin County offers a great quality-of-life with excellent schools. Not J-1 or H1B eligible. Visit our Web site: www.mmhhs.com; and email your CV to: jeooneslain@mmhhs-fi.org.

BAYBERRY, CALIFORNIA – EXCEPTIONAL opportunity for qualified family medicine physician for ED services. Stable group with excellent reputation seeks BE or B/E provider full-time. Excellent compensation, facility and colleagues. Please contact Terry Billard at (661) 323-5918; or fax CV to Emergency Medical Services Group, (661) 323-4703. Email: HLTGUY@aol.com.

职业机会

就业于快节奏的多学科小组，目前拥有为动态，繁忙的BC/BE医生提供的所有机会。

Regional Medical Director • Medical Director • Urgent/Primary Care Attending

我们的位置在Monmouth和Union counties提供灵活的计划，竞争力的补偿和优秀的利益。

如果您有兴趣了解更多，请提交您的CV至:

Soti Lubers, Physician Recruiter
877-692-4665 Ext. 1134
Fax: 973-740-9895
Email: lubersess@emomedicalcare.com

www.jucm.com
Career Opportunities

New York, Mid-Hudson Valley

Openings for BC/BE Family Practice & Emergency Medicine physicians.

65 miles from Manhattan. Outstanding opportunity for personal and professional growth in the fastest growing practice in New York State, located in one of the fastest growing regions in New York State!!

- Unique Urgent Care facility integrated with premier multi-specialty group medical practice.
- State-of-the-art facility.
- Electronic medical records.
- In-house digital imaging.
- Excellent compensation/partnership track.

Please write, fax or email to:
Hal Teitelbaum, MD, MBA, Managing Partner
155 Crystal Run Road, Middletown, NY 10941
Fax: 845.763.6201
Email: halteitelbaum@crystalrunhealthcare.com

CRYSTALRUNHEALTHCARE.COM

Northern California

Urgent Care Opportunities

Sutter Health, Sacramento Sierra Region providing services to Greater Sacramento area currently has Urgent Care opportunities in a variety of locations. Fulle-time and per-diem or supplemental positions are available.

The region offers something for everyone. The central location provides easy access to many of the best attractions. Northern CA has to offer: San Francisco, Napa Valley, and Lake Tahoe are all within the immediate area. Enjoy activities such as skiing, camping, and biking or just sit back and relax under the warm California sunshine.

Contact us to learn more about practice opportunities Sutter Health has to offer.

ASHEVILLE, NORTH CAROLINA - URGENT CARE OPPORTUNITIES

Come to the mountains of scenic Western North Carolina! Sisters of Mercy Services in Asheville, North Carolina seeks Physicians, Physician Assistants and Nurse Practitioners for our busy Urgent Care locations in Asheville and immediate surrounding areas (all in Buncombe County). Full-time and part-time opportunities, 12 hour shifts, no call, job share available within this Multi-specialty group. Must show clinical competency in Minor surgical procedures (i.e. I&D, wound care, foreign body removal), trauma stabilization and transport, non-life threatening medical emergencies, fracture/sprain diagnosis and splinting, laceration repair, urgent care includes obstetric urgent/emergent care. Fast paced environment requires rapid delivery. Must be comfortable with patients of all ages and gender. Team work essential.

Preferred Emergency Medicine or Urgent Care experience.
Ability to speak a second language helpful!

Physician requires:
Board-Certified/Board-Eligible (Urgent Care, Family Practice, ER, Internal Med, Surgery). Requires ACLS/PALS certification, Medical License to practice in North Carolina.
Physicians hired by contract: $180K-200K Annual DOQ.

Physician Assistant/Nurse Practitioner requires:
NC Licensed, Certified Physicians Assistant or Family Nurse Practitioner, ACLS/PALS certification. Competitive salary and full benefits package including 403b.

Send resume to: Shana Duncan, Executive Director
Sisters of Mercy Urgent Care, Inc.
445 Biltmore Ave., Suite 501, Asheville, NC 28801
E-mail: Shana@urgentcares.org • Phone (828) 281-2598

Equal Opportunity Employer
Career Opportunities

Intermountain Healthcare

Urgent Care – Utah County

Intermountain Healthcare needs one BC/BE family physician in an Urgent Care clinic in Utah County. Work week consists of 36 hours including weekends and holidays. Employment position with the Intermountain Medical Group. Full-time employment is preferred, although physicians who are available part-time will also be considered. Intermountain benefits. Relocation provided. Intermountain is an Equal Opportunity Employer. Utah County is located 44 miles south of Salt Lake City, Utah. It is the second largest county, in terms of population, in the state. Resting under the shadow of Mount Timpanogos, Utah Valley is surrounded with the beauty of mountains on the east and Utah Lake on the west, and all the favorite activities enjoyed throughout the four seasons are here to enjoy.

Send/email/fax CV to:
Intermountain Healthcare
Attn: Deanna Grange, Physician Recruiting
Dept., 36 S. State Street, 21st Floor,
Salt Lake City, UT 84111
800-888-3134, menu option 1.
Fax: 801-442-2999
Email: PhysicianRecruit@email.org.
www.intermountain.net/docjobs.

Urgent Care – Peoria, IL

Seeking physicians for employment in modern urgent care facilities operated by OSF Saint Francis Medical Center. Broad based diagnostic skills and experience are essential for practice at our facilities. On-site radiographic imaging and CLIA waived diagnostics available. Full-time position offered with opportunity to work extra shifts if desired.

Please contact: Marie Noeth
OSF Medical Group Physician Recruitment
Call: 309-677-8351 or 800-232-3129 press 8
Fax: 309-677-8338
marie.k.noeth@osfhealthcare.org
www.osfhealthcare.org

With a circulation of 13,000 Urgent Care subscribers, there are plenty of reasons why your company should be a part of The Journal of Urgent Care Medicine’s 11 monthly issues.
Phone: (800) 237-9851 • Fax (727) 445-9380

Business Broker Services – Own a busy, clinically excellent urgent care practice? Call for a free consultation from experienced urgent care business brokers. Contact Tony Lynch or Steve Mountain at MT Consulting, (610) 527-8400; or tony@mtbizbrokers.com; www.mtbizbrokers.com.

COLUMBUS, OHIO – Turnkey urgent care facility. 3600–sq.ft. building, parking for 30 cars, extra space; 50,000 traffic count daily. Great location/potential. Buy or lease building. Please contact DeBorah Morrison at (614) 866-9191.

FOR SALE: Busy urgent care center located in central Connecticut. Reply to Box #101, c/o JUCM, PO Box 1510, Clearwater, FL 33757-1510.
As an emerging distinct practice environment, urgent care is in the early stages of building a data set specific to its norms and practices.

In Developing Data, *JUCM* will offer results not only from UCAOA’s annual benchmarking surveys, but also from research conducted elsewhere to present an expansive view of the healthcare marketplace in which urgent care seeks to strengthen its presence.

In this issue: What three commonly prescribed medications are believed responsible for one third of all emergency department visits related to adverse drug events in patients 65 or older?

**DRUGS MOST RESPONSIBLE FOR ADVERSE EVENT ER VISITS AMONG SENIORS**

![Chart showing percentage of visits for Warfarin (33.5%), Insulin (17.3%), and Digoxin (3.2%) as the most responsible medications.]

*As defined by the Beers criteria.*


Overall, risk for adverse events related to the use of warfarin, insulin, and digoxin was 35 times greater than the risk for adverse events related to medications considered to be always potentially inappropriate, as defined by the Beers criteria.

How do these data color your perception of how to initially evaluate older patients who present with symptoms that could be indicative of an adverse drug event?

Future issues of *JUCM* will present new data from the third—and, to date, the most ambitious—UCAOA benchmarking survey.

Are you aware of new data that highlight how urgent care is helping to fill gaps in patient satisfaction, or healthcare in general? Let us know in an e-mail to editor@jucm.com. We’ll include them in an upcoming issue and on our website.
2 Days
September 26-27, 2008

Location
Peabody Hotel
Memphis, Tennessee

Focused Courses
• Starting a New Urgent Care Center
• Essential Topics in Urgent Care Medicine
• Strategic Marketing for Urgent Care
• Introduction to Urgent Care Coding
• Advanced Cases in Urgent Care Coding

URGENT CARE ASSOCIATION OF AMERICA
2008 Fall Conference
September 26-27
The Peabody Hotel, Memphis, Tennessee

Visit www.ucaoa.org to learn more about the programs, faculty, hotel & location, and to download a registration form.