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IN THIS ISSUE

A BRAVEHEART PUBLICATION

HOW CAN YOU MISS?

Achieve Proven Otitis Externa Cures with the #1 Otic Drop Among ENTs and Pediatricians.[1,2]

Based on 2 clinical trials, CIPRODEX® Otic demonstrated clinical cures in 87% and 94% of per protocol evaluable acute otitis externa (AOE) patients. And, among culture positive patients, clinical cures were 86% and 92% per protocol for CIPRODEX® Otic.[1]

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 5/07 CDX07505JA

CIPRODEX®
(ciprofloxacin 0.3% and dexamethasone 0.1%)
STERILE OTIC SUSPENSION

CIPRODEX® Otic is indicated in patients 6 months and older for acute otitis externa due to *Staphylococcus aureus* and *Pseudomonas aeruginosa*. CIPRODEX® Otic is contraindicated in patients with a history of hypersensitivity to ciprofloxacin, to other quinolones, or to any of the components in this medication. Use of this product is contraindicated in viral infections of the external canal including herpes simplex infections. CIPRODEX® Otic should be discontinued at the first appearance of a skin rash or any other sign of hypersensitivity. Serious and occasionally fatal hypersensitivity (anaphylactic) reactions, some following the first dose, have been reported in patients receiving systemic quinolones. Serious acute hypersensitivity reactions may require immediate emergency treatment. If the infection is not improved after one week of treatment, cultures should be obtained to guide further treatment. Most commonly reported adverse reactions in clinical trials in AOE patients: pruritus (1.5%), ear debris (0.6%), superimposed ear infection (0.6%), ear congestion (0.4%), ear pain (0.4%) and erythema (0.4%).

CIPRODEX®
(ciprofloxacin 0.3% and dexamethasone 0.1%)
STERILE OTIC SUSPENSION

DESCRIPTION
CIPRODEX® (ciprofloxacin 0.3% and dexamethasone 0.1%) Sterile Otic Suspension contains the synthetic broad-spectrum antibacterial agent, ciprofloxacin hydrochloride, combined with the anti-inflammatory corticosteroid, dexamethasone, in a sterile, preserved suspension for otic use. Each mL of CIPRODEX® Otic contains ciprofloxacin hydrochloride (equivalent to 3 mg ciprofloxacin base), 1 mg dexamethasone, and 0.1 mg benzalkonium chloride as a preservative. The inactive ingredients are boric acid, sodium chloride, hydroxyethyl cellulose, tyloxapol, acetic acid, sodium acetate, edetate disodium, and purified water. Sodium hydroxide or hydrochloric acid may be added for adjustment of pH.

Ciprofloxacin, a fluoroquinolone is available as the monohydrochloride monohydrate salt of 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid. The empirical formula is $C_{17}H_{18}FN_3O_3$·HCl·H_2O. Dexamethasone, 9-fluoro-11(beta),17,21-trihydroxy-16(alpha)-methylpregna-1,4-diene-3,20-dione, is an anti-inflammatory corticosteroid. The empirical formula is $C_{22}H_{29}FO_5$.

CLINICAL PHARMACOLOGY
Pharmacokinetics: Following a single bilateral 4-drop (total dose = 0.28 mL, 0.84 mg ciprofloxacin, 0.28 mg dexamethasone) topical otic dose of CIPRODEX® Otic to pediatric patients after tympanostomy tube insertion, measurable plasma concentrations of ciprofloxacin and dexamethasone were observed at 6 hours following administration in 2 of 9 patients and 5 of 9 patients, respectively.

Mean ± SD peak plasma concentrations of ciprofloxacin were 1.39 ± 0.880 ng/mL (n=9). Peak plasma concentrations ranged from 0.543 ng/mL to 3.45 ng/mL and were on average approximately 0.1% of peak plasma concentrations achieved with an oral dose of 250-mg [3]. Peak plasma concentrations of ciprofloxacin were observed within 15 minutes to 2 hours post dose application. Mean ± SD peak plasma concentrations of dexamethasone were 1.14 ± 1.54 ng/mL (n=9). Peak plasma concentrations ranged from 0.135 ng/mL to 5.10 ng/mL and were on average approximately 14% of peak concentrations reported in the literature following an oral 0.5-mg tablet dose[4]. Peak plasma concentrations of dexamethasone were observed within 15 minutes to 2 hours post dose application. Dexamethasone has been added to aid in the resolution of the inflammatory response accompanying bacterial infection (such as otorrhea in pediatric patients with AOM with tympanostomy tubes).

Microbiology: Ciprofloxacin has *in vitro* activity against a wide range of gram-positive and gram-negative microorganisms. The bactericidal action of ciprofloxacin results from interference with the enzyme, DNA gyrase, which is needed for the synthesis of bacterial DNA. Cross-resistance has been observed between ciprofloxacin and other fluoroquinolones. There is generally no cross-resistance between ciprofloxacin and other classes of antibacterial agents such as beta-lactams or aminoglycosides.

Ciprofloxacin has been shown to be active against most isolates of the following microorganisms, both *in vitro* and clinically in otic infections as described in the **INDICATIONS AND USAGE** section.

Aerobic and facultative gram-positive microorganisms: *Staphylococcus aureus, Streptococcus pneumoniae*. **Aerobic and facultative gram-negative microorganisms:** *Haemophilus influenzae, Moraxella catarrhalis, Pseudomonas aeruginosa*.

INDICATIONS AND USAGE: CIPRODEX® Otic is indicated for the treatment of infections caused by susceptible isolates of the designated microorganisms in the specific conditions listed below: **Acute Otitis Media** in pediatric patients (age 6 months and older) with tympanostomy tubes due to *Staphylococcus aureus, Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catarrhalis*, and *Pseudomonas aeruginosa*. **Acute Otitis Externa** in pediatric (age 6 months and older), adult and elderly patients due to *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

CONTRAINDICATIONS
CIPRODEX® Otic is contraindicated in patients with a history of hypersensitivity to ciprofloxacin, to other quinolones, or to any of the components in this medication. Use of this product is contraindicated in viral infections of the external canal including herpes simplex infections.

WARNINGS
FOR OTIC USE ONLY (This product is not approved for ophthalmic use.) **NOT FOR INJECTION**

CIPRODEX® Otic should be discontinued at the first appearance of a skin rash or any other sign of hypersensitivity. Serious and occasionally fatal hypersensitivity (anaphylactic) reactions, some following the first dose, have been reported in patients receiving systemic quinolones. Serious acute hypersensitivity reactions may require immediate emergency treatment.

PRECAUTIONS
General: As with other antibacterial preparations, use of this product may result in overgrowth of nonsusceptible organisms, including yeast and fungi. If the infection is not improved after one week of treatment, cultures should be obtained to guide further treatment. If otorrhea persists after a full course of therapy, or if two or more episodes of otorrhea occur within six months, further evaluation is recommended to exclude an underlying condition such as cholesteatoma, foreign body, or a tumor. The systemic administration of quinolones, including ciprofloxacin at doses much higher than given or absorbed by the otic route, has led to lesions or erosions of the cartilage in weight-bearing joints and other signs of arthropathy in immature animals of various species. Guinea pigs dosed in the middle ear with CIPRODEX® Otic for one month exhibited no drug-related structural or functional changes of the cochlear hair cells and no lesions in the ossicles. CIPRODEX® Otic was also shown to lack dermal sensitizing potential in the guinea pig when tested according to the method of Buehler. No signs of local irritation were found when CIPRODEX® Otic was applied topically in the rabbit eye. **Information for Patients:** For otic use only. (This product is not approved for use in the eye.) Warm the bottle in your hand for one to two minutes prior to use and shake well immediately before using. Avoid contaminating the tip with material from the ear, fingers, or other sources. Protect from light. If rash or allergic reaction occurs, discontinue use immediately and contact your physician. It is very important to use the ear drops for as long as the doctor has instructed, **even if the symptoms improve.** Discard unused portion after therapy is completed. **Acute Otitis Media in pediatric patients with tympanostomy tubes:** Prior to administration of CIPRODEX® Otic in patients (6 months and older) with acute otitis media through tympanostomy tubes, the solution should be warmed by holding the bottle in the hand for one or two minutes to avoid dizziness which may result from the instillation of a cold solution. The patient should lie with the affected ear upward, and then the drops should be instilled. The tragus should then be pumped 5 times by pushing inward to facilitate penetration of the drops into the middle ear. This position should be maintained for 60 seconds. Repeat, if necessary, for the opposite ear (see **DOSAGE AND ADMINISTRATION**). **Acute Otitis Externa:** Prior to administration of CIPRODEX® Otic in patients with acute otitis externa, the solution should be warmed by holding the bottle in the hand for one or two minutes to avoid dizziness which may result from the instillation of a cold solution. The patient should lie with the affected ear upward, and then the drops should be instilled. This position should be maintained for 60 seconds to facilitate penetration of the drops into the ear canal. Repeat, if necessary, for the opposite ear (see **DOSAGE AND ADMINISTRATION**).

Drug Interactions: Specific drug interaction studies have not been conducted with CIPRODEX® Otic. **Carcinogenesis, Mutagenesis, Impairment of Fertility:** Long-term carcinogenicity studies in mice and rats have been completed for ciprofloxacin. After daily oral doses of 750 mg/kg (mice) and 250 mg/kg (rats) were administered for up to 2 years, there was no evidence that ciprofloxacin had any carcinogenic or tumorigenic effects in these species. No long term studies of CIPRODEX® Otic have been performed to evaluate carcinogenic potential. Eight *in vitro* mutagenicity tests have been conducted with ciprofloxacin, and the test results are listed below: *Salmonella*/Microsome Test (Negative), *E. coli* DNA Repair Assay (Negative), Mouse Lymphoma Cell Forward Mutation Assay (Positive), Chinese Hamster V79 Cell HGPRT Test (Negative), Syrian Hamster Embryo Cell Transformation Assay (Negative), *Saccharomyces cerevisiae* Point Mutation Assay (Negative), *Saccharomyces cerevisiae* Mitotic Crossover and Gene Conversion Assay (Negative), Rat Hepatocyte DNA Repair Assay (Positive). Thus, 2 of the 8 tests were positive, but results of the following 3 *in vivo* test systems gave negative results: Rat Hepatocyte DNA Repair Assay, Micronucleus Test (Mice), Dominant Lethal Test (Mice). Fertility studies performed in rats at oral doses of ciprofloxacin up to 100 mg/kg/day revealed no evidence of impairment. This would be over 100 times the maximum recommended clinical dose of ototopical ciprofloxacin based upon body surface area, assuming total absorption of ciprofloxacin from the ear of a patient treated with CIPRODEX® Otic twice per day according to label directions. Long term studies have not been performed to evaluate the carcinogenic potential of topical otic dexamethasone. Dexamethasone has been tested for *in vitro* and *in vivo* genotoxic potential and shown to be positive in the following assays: chromosomal aberrations, sister-chromatid exchange in human lymphocytes and micronuclei and sister-chromatid exchanges in mouse bone marrow. However, the Ames/Salmonella assay, both with and without S9 mix, did not show any increase in His+ revertants. The effect of dexamethasone on fertility has not been investigated following topical otic application. However, the lowest toxic dose of dexamethasone identified following topical dermal application was 1.802 mg/kg in a 26-week study in male rats and resulted in changes to the testes, epididymis, sperm duct, prostate, seminal vessicle, Cowper's gland and accessory glands. The relevance of this study for short term topical otic use is unknown.

Pregnancy

Teratogenic Effects. Pregnancy Category C: Reproduction studies have been performed in rats and mice using oral doses of up to 100 mg/kg and IV doses up to 30 mg/kg and have revealed no evidence of harm to the fetus as a result of ciprofloxacin. In rabbits, ciprofloxacin (30 and 100 mg/kg orally) produced gastrointestinal disturbances resulting in maternal weight loss and an increased incidence of abortion, but no teratogenicity was observed at either dose. After intravenous administration of doses up to 20 mg/kg, no maternal toxicity was produced in the rabbit, and no embryotoxicity or teratogenicity was observed. Corticosteroids are generally teratogenic in laboratory animals when administered systemically at relatively low dosage levels. The more potent corticosteroids have been shown to be teratogenic after dermal application in laboratory animals. Animal reproduction studies have not been conducted with CIPRODEX® Otic. No adequate and well controlled studies have been performed in pregnant women. Caution should be exercised when CIPRODEX® Otic is used by a pregnant woman.

Nursing Mothers: Ciprofloxacin and corticosteroids, as a class, appear in milk following oral administration. Dexamethasone in breast milk could suppress growth, interfere with endogenous corticosteroid production, or cause other untoward effects. It is not known whether topical otic administration of ciprofloxacin or dexamethasone could result in sufficient systemic absorption to produce detectable quantities in human milk. Because of the potential for unwanted effects in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use: The safety and efficacy of CIPRODEX® Otic have been established in pediatric patients 6 months and older (937 patients) in adequate and well-controlled clinical trials. Although no data are available on patients less than age 6 months, there are no known safety concerns or differences in the disease process in this population that would preclude use of this product. (See **DOSAGE AND ADMINISTRATION.**) No clinically relevant changes in hearing function were observed in 69 pediatric patients (age 4 to 12 years) treated with CIPRODEX® Otic and tested for audiometric parameters.

ADVERSE REACTIONS
In Phases II and III clinical trials, a total of 937 patients were treated with CIPRODEX® Otic. This included 400 patients with acute otitis media with tympanostomy tubes and 537 patients with acute otitis externa. The reported treatment-related adverse events are listed below:

Acute Otitis Media in pediatric patients with tympanostomy tubes: The following treatment-related adverse events occurred in 0.5% or more of the patients with non-intact tympanic membranes.

Adverse Event	Incidence (N=400)
Ear discomfort	3.0%
Ear pain	2.3%
Ear precipitate (residue)	0.5%
Irritability	0.5%
Taste perversion	0.5%

The following treatment-related adverse events were each reported in a single patient: tympanostomy tube blockage; ear pruritus; tinnitus; oral moniliasis; crying; dizziness; and erythema. **Acute Otitis Externa:** The following treatment-related adverse events occurred in 0.4% or more of the patients with intact tympanic membranes.

Adverse Event	Incidence (N=537)
Ear pruritus	1.5%
Ear debris	0.6%
Superimposed ear infection	0.6%
Ear congestion	0.4%
Ear pain	0.4%
Erythema	0.4%

The following treatment-related adverse events were each reported in a single patient: ear discomfort; decreased hearing; and ear disorder (tingling).

DOSAGE AND ADMINISTRATION
CIPRODEX® OTIC SHOULD BE SHAKEN WELL IMMEDIATELY BEFORE USE

CIPRODEX® Otic contains 3 mg/mL (3000 µg/mL) ciprofloxacin and 1 mg/mL dexamethasone.

Acute Otitis Media in pediatric patients with tympanostomy tubes: The recommended dosage regimen for the treatment of acute otitis media in pediatric patients (age 6 months and older) through tympanostomy tubes is: Four drops (0.14 mL, 0.42 mg ciprofloxacin, 0.14 mg dexamethasone) instilled into the affected ear twice daily for seven days. The solution should be warmed by holding the bottle in the hand for one or two minutes to avoid dizziness, which may result from the instillation of a cold solution. The patient should lie with the affected ear upward, and then the drops should be instilled. The tragus should then be pumped 5 times by pushing inward to facilitate penetration of the drops into the middle ear. This position should be maintained for 60 seconds. Repeat, if necessary, for the opposite ear. Discard unused portion after therapy is completed. **Acute Otitis Externa:** The recommended dosage regimen for the treatment of acute otitis externa is: For patients (age 6 months and older): Four drops (0.14 mL, 0.42 mg ciprofloxacin, 0.14 mg dexamethasone) instilled into the affected ear twice daily for seven days. The solution should be warmed by holding the bottle in the hand for one or two minutes to avoid dizziness, which may result from the instillation of a cold solution. The patient should lie with the affected ear upward, and then the drops should be instilled. This position should be maintained for 60 seconds to facilitate penetration of the drops into the ear canal. Repeat, if necessary, for the opposite ear. Discard unused portion after therapy is completed.

HOW SUPPLIED
CIPRODEX® (ciprofloxacin 0.3% and dexamethasone 0.1%) Sterile Otic Suspension is supplied as follows: 5 mL fill and 7.5 mL fill in a DROP-TAINER® system. The DROP-TAINER® system consists of a natural polyethylene bottle and natural plug, with a white polypropylene closure. Tamper evidence is provided with a shrink band around the closure and neck area of the package. NDC 0065-8533-01, 5 mL fill; NDC 0065-8533-02, 7.5 mL fill. **Storage:** Store at controlled room temperature, 15°C to 30°C (59°F to 86°F). Avoid freezing. Protect from light.

Clinical Studies: In a randomized, multicenter, controlled clinical trial, CIPRODEX® Otic dosed 2 times per day for 7 days demonstrated clinical cures in the per protocol analysis in 86% of AOMT patients compared to 79% for ofloxacin solution, 0.3%, dosed 2 times per day for 10 days. Among culture positive patients, clinical cures were 90% for CIPRODEX® Otic compared to 79% for ofloxacin solution, 0.3%. Microbiological eradication rates for these patients in the same clinical trial were 91% for CIPRODEX® Otic compared to 82% for ofloxacin solution, 0.3%. In 2 randomized multicenter, controlled clinical trials, CIPRODEX® Otic dosed 2 times per day for 7 days demonstrated clinical cures in 87% and 94% of per protocol evaluable AOE patients, respectively, compared to 84% and 89%, respectively, for otic suspension containing neomycin 0.35%, polymyxin B 10,000 IU/mL, and hydrocortisone 1.0% (neo/poly/HC). Among culture positive patients clinical cures were 86% and 92% for CIPRODEX® Otic compared to 84% and 89%, respectively, for neo/poly/HC. Microbiological eradication rates for these patients in the same clinical trials were 86% and 92% for CIPRODEX® Otic compared to 85% and 85%, respectively, for neo/poly/HC.

References:

1. CIPRODEX® Otic package insert.
2. Wolters Kluwer Health, Source® Pharmaceutical Audit Suite, April 2006 - March 2007. Based on total monthly prescription counts.
3. Campoli-Richards DM, Monk JP, Price A, Benfield P, Todd PA, Ward A. Ciprofloxacin: a review of its antibacterial activity, pharmacokinetic properties and therapeutic use. *Drugs.* 1988;35:373-447.
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U.S. Patent Nos. 4,844,902; 6,284,804; 6,359,016
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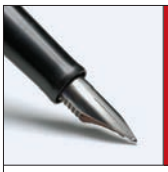

LETTER FROM THE EDITOR-IN-CHIEF

Defining Urgent Care

In this issue of *JUCM, The Journal of Urgent Care Medicine*, we excerpt the landmark report, "No Appointment Needed: The Resurgence of Urgent Care Centers in the United States". Funded by the California HealthCare Foundation, and authored by Robin M. Weinick, PhD and Renée M. Betancourt, BA, the report represents the first comprehensive look into urgent care practice and the urgent care industry.

Everything from business models and staffing to healthcare delivery and training is discussed.

While the report clarifies many aspects of urgent care practice, questions remain. Paramount among them: What constitutes an urgent care center? The report concedes there is no nationally accepted definition, but ventures that there are a few distinguishing characteristics, such as an emphasis on walk-in or unscheduled patients, extended evening and weekend hours, and an array of services that exceeds those offered in a traditional primary care practice. We acknowledge the importance of more clearly defining and benchmarking urgent care practice, and Dr. Weinick's work is the first effort towards this end.

As an assistant professor at Harvard Medical School and a senior scientist at the Institute for Health Policy, Massachusetts General Hospital, Dr. Weinick has focused her research career, in part, on improving access to quality healthcare in the United States. Recently, she has taken a specific interest in urgent care as a healthcare delivery model, as witnessed in her groundbreaking report.

UCAOA was so impressed with her work that we decided to provide funding to support the expansion of her research in the field. Dr. Weinick is now engaged in the development of the first national urgent care sampling frame and first formal urgent care benchmarking study.

Dr. Weinick's experience and leadership in health services research ensures proper study design, methods, and power, all of which lend credibility to the findings, and legitimately put urgent care on the map of our nation's healthcare delivery system.

We all see the everyday impact of urgent care. It is now time to formally quantify that impact and qualify what we do and how we do it. This is the critical work of an evolved organization representing an evolving discipline.

UCAOA is proud to provide full funding for this project, and will use its results to support the interests of urgent care practitioners, industry, and patients alike.

In addition to this project, UCAOA, in an effort to better disseminate the core competencies of urgent care practice, has hired two consultants to provide our members value-added content to improve their clinical care and practice management alike.

Alan Ayers, MBA, MAcc will be tasked with developing practice management tools and our business curriculum, as well as unique ways to bring this material to our members. Alan brings a wealth of consulting expertise, and has proven success as an urgent care business leader.

On the clinical front, UCAOA welcomes Dr. Phillip Disraeli as director of clinical program development. Dr. Disraeli is a seasoned urgent care practitioner and former family medicine residency director. He will be working to bring our members unique learning opportunities at all skill levels.

As highlighted in Dr. Weinick's report, the clinical competencies in urgent care medicine are broad. To ensure our practitioners deliver the highest quality care, we believe strongly in the need for specific urgent care training both for new graduates and experienced practitioners. In addition, Dr. Disraeli will work with the quality committee in their efforts to establish "best practices" in urgent care.

Just some of the ways UCAOA is working for you, building a stronger urgent care industry behind excellence in clinical practice and benchmarked standards.

Please support our efforts by becoming a member of UCAOA, joining us at the 2008 Urgent Care Annual Convention in New Orleans (April 29-May 2), and contributing to our many efforts, including this journal. Visit *www.ucaoa.org* to learn more. ■

Lee A. Resnick, MD
Editor-in-Chief
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President, UCAOA

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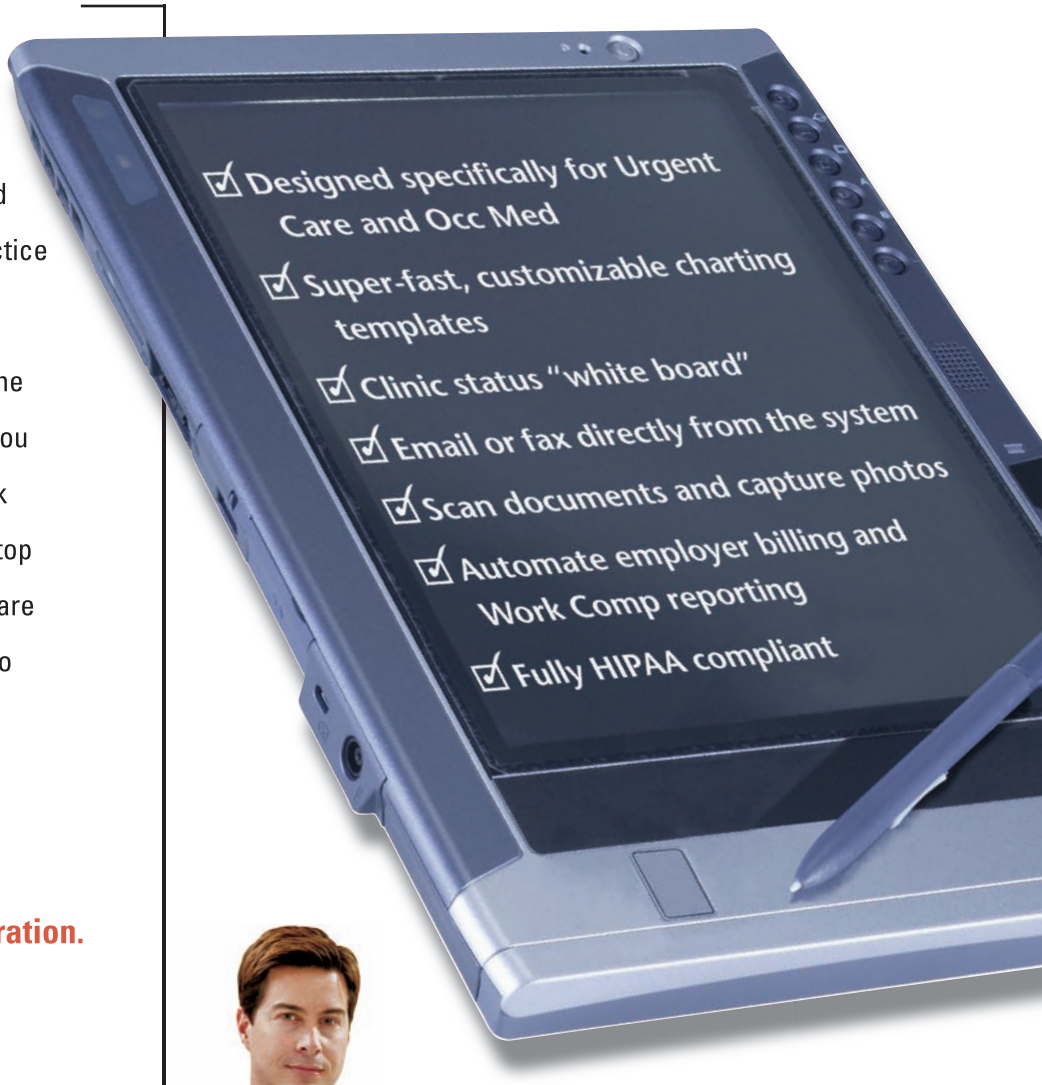

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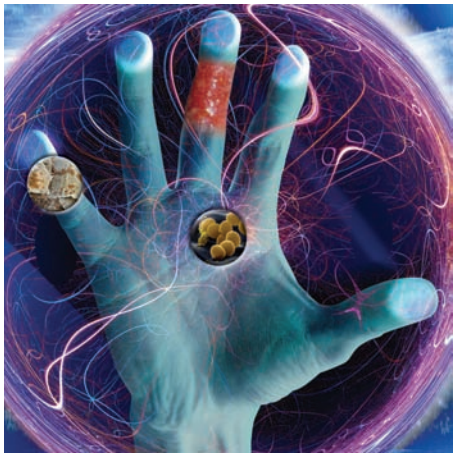
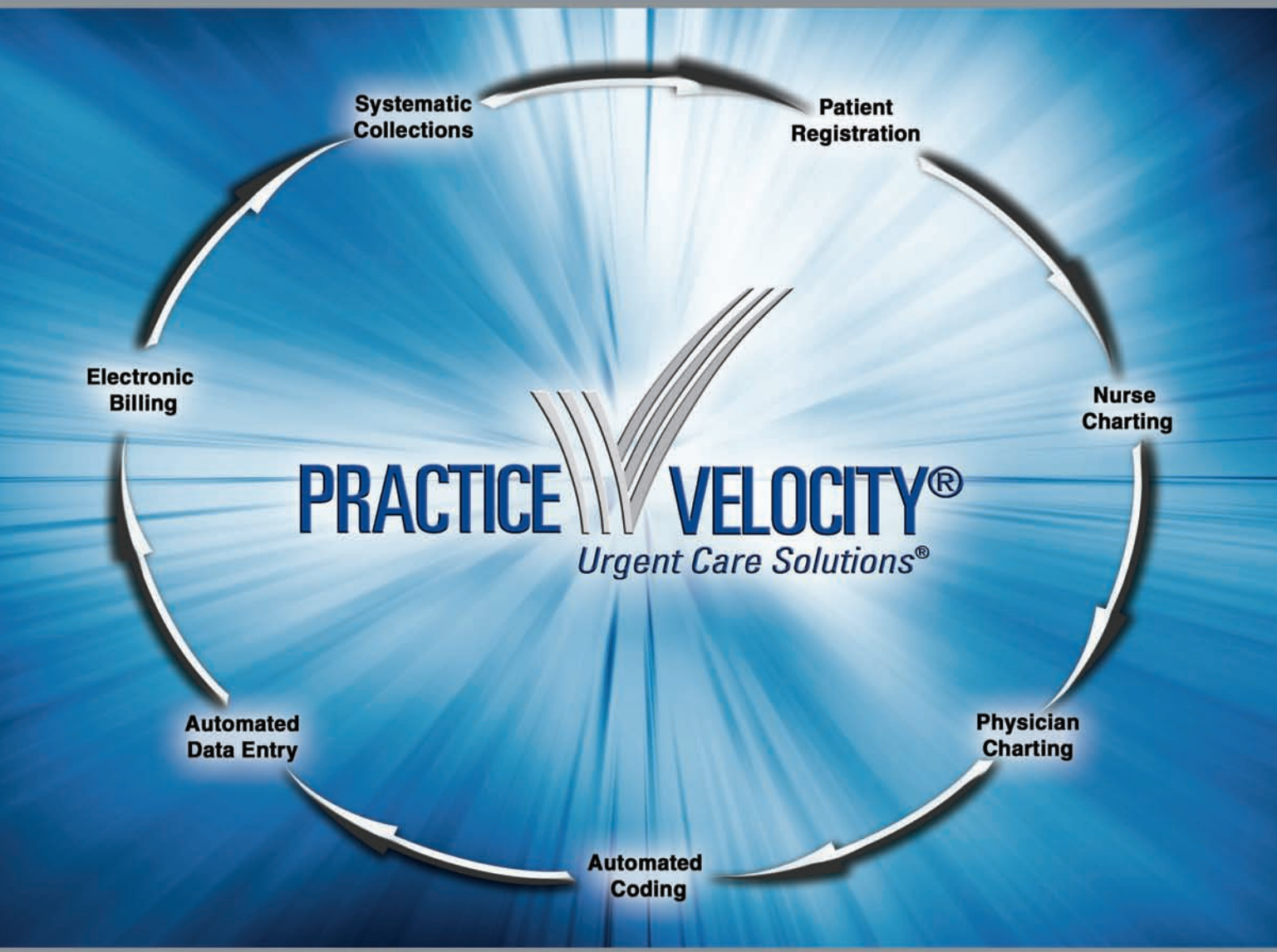


CLINICAL

Next month in JUCM:

How proper evaluation of a limping child with no clear history of trauma can prevent potentially catastrophic outcomes.

Software Designed Specifically for Urgent Care



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Mission Statement

JUCM *The Journal of Urgent Care Medicine* supports the evolution of urgent care medicine by creating content that addresses both the clinical practice of urgent care medicine and the practice management challenges of keeping pace with an ever-changing healthcare marketplace. As the Official Publication of the Urgent Care Association of America, *JUCM* seeks to provide a forum for the exchange of ideas and to expand on the core competencies of urgent care medicine as they apply to physicians, physician assistants, and nurse practitioners.

JUCM CONTRIBUTORS

Presentations that seem straightforward at the outset can turn out to be something else all together, leading to potentially dire consequences.



Take, for example, hand infections that might be presented fairly commonly in urgent care. Relatively simple surgical procedures can be performed on site, but those infections can blossom into disabling conditions if misdiagnosed or mismanaged. An original article by **Arthur R. Smolensky, MD**, **Samuel M. Keim, MD**, and **Peter Rosen, MD**, Assessment and Management of Common Hand Infections in Urgent Care (page 11), reviews how to diagnose and treat appropriately and efficiently.

Dr. Smolensky is an emergency medicine physician at the University of Arizona, where Dr. Keim is associate head and residency director of the Department of Emergency Medicine and Dr. Rosen is a clinical professor. In addition, Dr. Rosen is a member of the *JUCM* Advisory Board.


Further emphasizing the fact that things aren't always what they seem is the latest Bouncebacks feature by **Michael B. Weinstock, MD** and **Ryan Longstreth, MD, FACEP**. In this issue, they share a case that explores how recognizing high-risk patients as early as possible allows for thorough evaluation and appropriate documentation of follow-up (page 21).

We're also pleased to bring you an original case report (Ruptured Ectopic Pregnancy with a Negative Urine Pregnancy Test, page 26), in which **Yi-An A. Lee, MD, MPH, Gino Farina, MD,** and **Helene Lhamon, MD** further illustrate the necessity to look beyond what seems like the obvious conclusion.

Finally, the California HealthCare Foundation (CHCF) recently issued a report on the state of urgent care medicine in the United States. (It's on the rise, in case you were wondering.) The report was co-authored by *JUCM* Advisory Board member **Robin M. Weinick, PhD** and **Renée M. Betancourt, BA**. CHCF granted us permission to include excerpts in this issue, which you'll find on page 35.

Of course, inside you'll also find typically excellent contributions from **Nahum Kovalski, BSc, MDCM** (Abstracts in Urgent Care), **Frank Leone, MBA, MPH** (Occupational Medicine), **John Shufeldt, MD, JD, MBA, FACEP** (Health Law), and **David Stern, MD** (Coding Q&A). As always, we're grateful for their ongoing support.

If you'd like to contribute to *JUCM*, please send an e-mail to Editor-in-Chief **Lee A. Resnick, MD**, at *editor@jucm.com*.■

To Submit an Article to *JUCM*

JUCM, *The Journal of Urgent Care Medicine* encourages you to submit articles in support of our goal to provide practical, up-to-date clinical and practice management information to our readers—the nation's urgent care clinicians. Articles submitted for publication in ***JUCM*** should provide practical advice, dealing with clinical and practice management problems commonly encountered in day-to-day practice.

Manuscripts on clinical or practice management topics should be 2,600–3,200 words in length, plus tables, figures, pictures, and references. Articles that are longer than this will, in most cases, need to be cut during editing.

We prefer submissions by e-mail, sent as Word file attachments (with tables created in Word, in multicolumn format) to *editor@jucm.com*. The first page should include the title of the article, author names in the order they are to appear, and the name, address, and contact information (mailing address, phone, fax, e-mail) for each author.

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

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Look Out, World!

LOU ELLEN HORWITZ, MA

Let's talk about growth for a moment. I know that 99% of the urgent care owners I talk to are so busy they can hardly breathe. We are hearing average patients per day numbers of 57, 78, even 112 at one clinic in the Northwest. Everyone agrees, this is a good thing—but wow, are we busy!

All the retail clinic press coverage notwithstanding, it's urgent care that's truly on the move. We still don't have an accurate count of all the centers in the country, but our new benchmarking study will take another giant leap toward having that data. (Surveys will start mailing in January, so we'll share more about that in December's column.)

I hope you all are seeing the same levels of demand in your own centers. Not only is it good for you, it's obviously good for your community, and good for the entire field of urgent care. One thing that has become clear to us over the past year is that the more of us there are in urgent care, the more the medical community and payor community will pay attention to what we have to say.

While UCAOA has always been happy to attract new members, one particular fact—the need for a strong voice—makes our mandate for growth more important than ever.

So, while it's not typically my intent to use this space to sell anything to you, I would ask you to do one thing for us: tell your friends about UCAOA. And even if you aren't typically a "joiner," we want you to become a member; your alliance is extremely important and will help empower UCAOA to truly be representative of the entire field of urgent care.

Internal Growth

That said, I want to share a little bit about our own growth, and also about the growth of the UCAOA Urgent Care Convention we're planning for 2008.

Thanks (we believe) to a strong devotion to our members and their needs, we have been privileged to be able to continue expanding the staff at UCAOA, so that we can continue expanding our ability to play a role in the success of your urgent care centers.

Our full-time staff has grown to four people (come and meet them on the website in the About Us area of *www.ucaoa.org*) who work hard every day to exceed your expectations. By the way, we'd also love to know how you think we are doing.

In addition to our full-time staff, we have recently welcomed Phillip Disraeli, MD, FAAFP and Alan Ayers, MBA, MAcc as our two newest collaborators. We will leverage the expertise of these two individuals to enhance the content on our website, in print, and at the conferences so we can bring you improved and expanded information on both the clinical and business sides of urgent care. We look forward to sharing their contributions with you.

2008 Convention

Lastly, I want to share a sneak peek at how the upcoming 2008 Urgent Care Convention is growing.

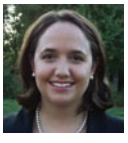
We are almost doubling the topic offerings for the next convention—you wanted more choices, and you're going to get them. However, choosing what offerings to go to will be your biggest challenge, because they're all great.

We're also expanding the Starting a New Urgent Care Center program from one day to two days; there's just too much you need to know to fit into one day. This will provide a good starting point for those new to urgent care, so we can focus the rest of the convention on more advanced topics for all of you veterans out there.

There's more, but you'll have to wait for the brochure to see it. We hope to have it in the mail by mid-December.

I know many of you have already marked the 2008 convention dates on your calendar (April 29-May 2), but you may want to add a few days on the front or back of that, because we are there right between the two weeks of JazzFest—as if our convention isn't going to be entertaining enough!

Hope everyone has a Happy Thanksgiving, and on behalf of all of us at UCAOA, know that we are thankful for you and for all that you do to improve the healthcare of our communities. ■



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

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Assessment and Management of Common Hand Infections

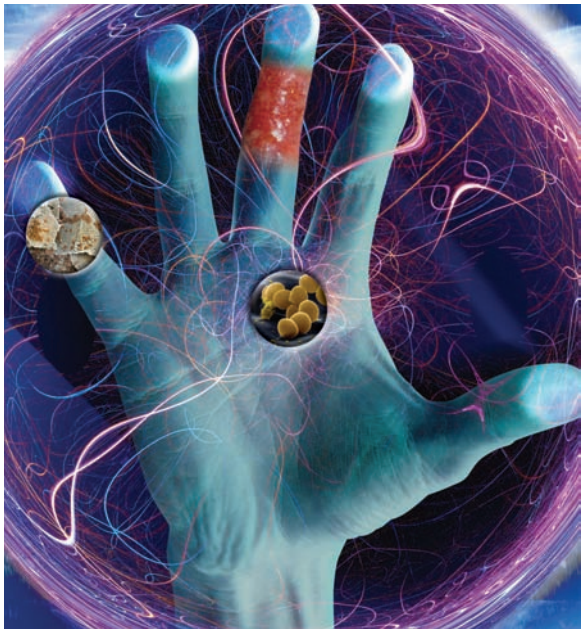
Urgent message: Common superficial hand infections may be managed easily by the urgent care physician. Left untreated or undertreated, however, simple hand infections may progress to disabling conditions requiring urgent sub-specialty management.

Arthur R. Smolensky, MD, Samuel M. Keim, MD, MS, and Peter Rosen, MD

Introduction

The hand is an intricate and crucial feature of the human body. Yet, with the exception of superficial cellulitis, common hand infections require relatively simple surgical procedures—many of which can be performed in the urgent care setting.

Proper diagnosis and management is essential in preventing significant morbidity related to these infections. Many hand infections do well with early splinting, antibiotics, and pain control, whereas more advanced infections require incision and drainage.



This article will focus on and distinguish among types of hand infections seen commonly in urgent care.

FELON

Pathophysiology

A felon is an infection of the pulp of the distal finger or thumb. It differs from other subcutaneous abscesses because of the presence of 15 to 20 septa that run along the long axis of the finger that divide the pulp into small superficial compartments.

Abscesses in these small noncompliant spaces can be extremely painful, and swelling in this area can lead to necrosis before any fluctuance can be observed.

Additionally, because the septa attach to the periosteum, spread of the infection can lead to osteomyelitis of the distal phalanx.[1]

The septa do, however, provide a barrier that protects the joint space and tendon sheath by limiting the proximal spread of the infection. The usual cause is penetrating trauma with secondary bacterial invasion.

Clinical Features

The most commonly affected digits are the thumb and index finger. Common predisposing causes include wood splinters, bits of glass, abrasions, and minor puncture wounds.

Staphylococcus aureus is the most common organism,

TABLE 1. MANAGEMENT OF COMMON INFECTIONS, BY TYPE

INFECTION	MANAGEMENT
Felon	■ Incision and drainage – Digital block for postoperative discomfort ■ Antibiotics in advance of culture results
Paronychia	■ Warm compresses/soaks for 20 minutes, three times daily ■ Antibiotic therapy ■ Incision and drainage – Digital block for more extensive infection – Post-incision: irrigation and packing, if possible
Herpetic whitlow	■ Often resolves in 2-3 weeks ■ Objective: Prevention of oral inoculation, spread of infection, symptomatic relief
Pyogenic flexor tenosynovitis	■ Early infection: IV antibiotics, position of function, splinting, elevation ■ Empiric therapy ■ Early involvement of hand surgeon

but *Streptococcus* species, anaerobes, and gram-negative organisms are also encountered frequently. Therefore, one should always consider a polymicrobial etiology. A Gram's stain and culture should be obtained, as these infections may be difficult to eradicate and chronic infections may be caused by atypical organisms.[2]

Clinically, a felon begins as an area of cellulitis and inflammation that progresses rapidly to throbbing, pain, swelling, and pressure in the distal pulp space.

It is important to not confuse a felon with a herpetic whitlow, as incision-and-drainage is not necessary in the latter and may cause additional morbidity. Clues are the presence of herpetic ulcers in the mouth or a past history of canker sores. The location of the infection is also helpful in making the distinction, since the herpetic lesion is usually paronychial rather than in the pulp space.

Management

Traditional management of felons emphasizes early incision and drainage. A common error is to await the appearance of fluctuance before initiating surgical incision. Since the fascial septa prevent fluctuance, this error can lead to necrosis of the distal digit.

Most felons can be drained by a single lateral incision.[3]

A digital block using a long-acting anesthetic such as 0.25% bupivacaine should be used because postoperative discomfort is considerable. The digital block anesthetizes the entire digit distal to the infiltration site, which is most often placed at the level of the metacarpal-phalangeal joint. In cross-section, the digital nerves lie approximately at 4 and 8 o' clock. Slow infiltration of 1 ml to 2 ml of local anesthetic on each side of the digit at these locations will typically result in a good block. For thumbs, it is necessary to administer a third subcutaneous injection line across the dorsum of the digit at the same level. Avoid administering anesthetics containing epinephrine.

The incision should be made along the ulnar aspects of the second through fourth digits (index, long, and ring fingers) and the radial aspects of the first and fifth digits (thumb and little finger), avoiding the pincher (palmar) surfaces.

The incision should be made 0.5 cm distal to the DIP joint crease and dorsal to the neurovascular bundle of the fingertip, and go to the free edge of the nail.

Alternatively, a single volar longitudinal incision can be performed.[4] The wound should be irrigated and, if possible, loosely packed with gauze. The packing should be removed in two to three days, and allowed to heal without secondary closure.

Most felons are also treated with antibiotics until culture results are obtained. Depending on the local prevalence of methicillin-resistant *Staphylococcus aureus*, appropriate antibiotics should be given for at least five days. [Note: A future issue of *JUCM* will discuss MRSA in detail.]

Incision techniques not recommended include the "fish-mouth" incision, the "hockey stick" (or "J") incision, and the transverse palmar incision. These incisions are more likely to result in painful, sensitive scars and damage to neurovascular structures.[4]

Bilateral incisions used to drain felons commonly leave unstable finger pads or may result in painful neuromas or aesthetic fingertips. "Fish-mouth" incisions may destroy blood supply to the fingertip.[3] Longitudinal midline incisions on the volar surface may leave scars over an important area for sensation.

Any incision that is made too deeply and proximally can injure the flexor tendon sheath and initiate a tenosynovitis.

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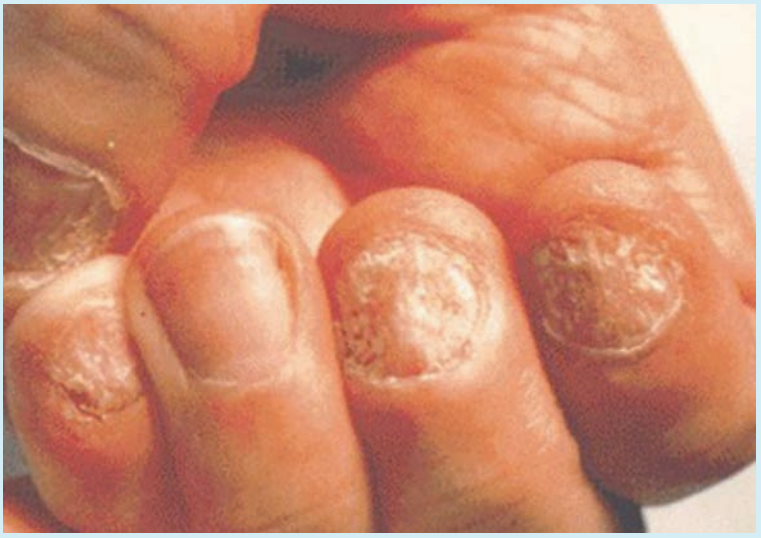
Felons not responding to treatments outlined above should be referred to a hand specialist for more definitive management and long-term follow-up.

FIGURE 1. CANDIDAL INFECTION



Candida albicans

PARONYCHIA

Pathophysiology

A paronychia is a localized superficial infection or abscess involving the lateral nail fold. Overall, it is the most common infection of the hand. Predisposing factors include overzealous manicuring, nail biting, diabetes mellitus, and occupations in which the hands are frequently immersed in water.[5] Paronychia in children is often caused by finger sucking and nail biting.

Clinical Features

Swelling and tenderness of the soft tissue along one or both sides of the lateral nail fold are evident and easily recognized. A paronychia begins as cellulitis, but if untreated may progress to an abscess. *S aureus* is the most common cause of paronychia infection, followed by *Streptococci*.[6]

These infections, like all hand infections, may be polymicrobial. Atypical mycobacterium and *Candida albicans* should be considered as etiologic agents in chronic cases (**Figure 1**). Chronic cases are often seen in immunocompromised patients.

Management

Treatment for early acute paronychia infection without abscess formation includes warm compresses or soaks to the affected digit for 20 minutes, three times per day and antibiotic therapy.

Once the area becomes fluctuant, drainage is necessary and usually curative. Adequate drainage can often be obtained by elevating the skin off of the nail to allow the pus to drain. This can be performed without anesthesia in some patients.

More extensive infections require a digital block, as described previously. After softening the eponychium by soaking the affected finger in warm water, a scalpel or 18 gauge needle may be advanced parallel to the nail and under the eponychium at the site of maximal swelling.[7] If the infection is more extensive, the lateral one-fourth of the nail may be bluntly dissected from the underlying nail bed and germinal matrix and the lateral nail plate.

After incision, the cavity should be irrigated and packing placed if possible. Unlike felon drainage, cultures and antibiotics are not indicated if the drainage is complete, and there is no evidence of cellulitis. Most paronychias resolve in five to 10 days, but all hand infection patients should be given disposition instructions that include follow-up evaluation.

A well-known complication of a paronychia infection is osteomyelitis of the distal phalanx. A patient with chronic paronychia should be referred to a dermatologist or hand surgeon.

HERPETIC WHITLOW

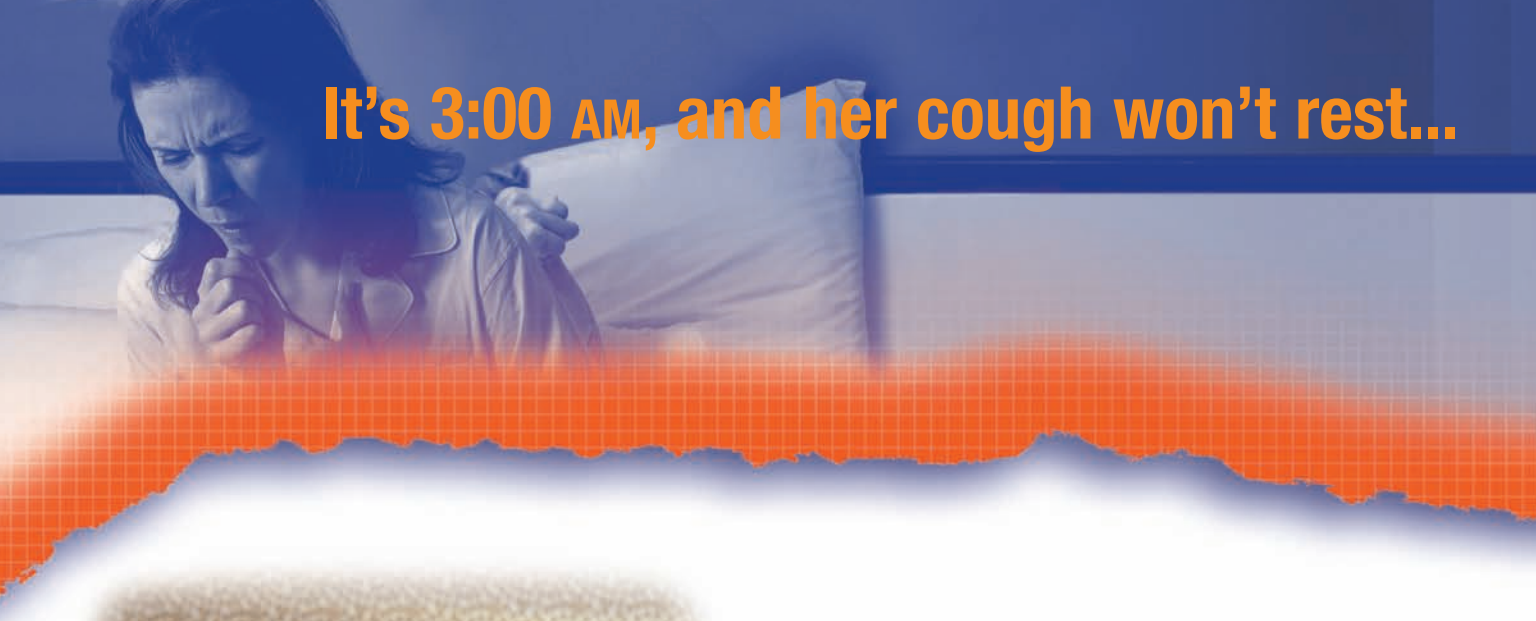
Pathophysiology

Herpetic whitlow is a self-limited herpes simplex (HSV) viral infection of the distal finger. In the United States, HSV infection of the hand occurs in 2.4 cases per 100,000 population per year.[8] It is the most common viral infection of the hand.

Infections by HSV 1 or HSV 2 are clinically indistinguishable. Direct inoculation of the virus into a wound is usually the mechanism of infection.[9]

Herpetic whitlow is often found in adult women with genital herpes and children with coexistent herpetic gingivostomatitis.

Healthcare workers are also at an increased risk due to exposure to orotracheal secretions; however, a review of herpes infections in the hand shows only 14% of adult



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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 teaspoonful (5 mL) of TUSSIONEX® contains hydrocodone polistirex equivalent to 10 mg hydrocodone bitartrate and chlorpheniramine polistirex equivalent to 8 mg chlorpheniramine maleate. TUSSIONEX® is contraindicated in the presence of known allergy or sensitivity to hydrocodone or chlorpheniramine and in children less than 6 years of age. 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. 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.

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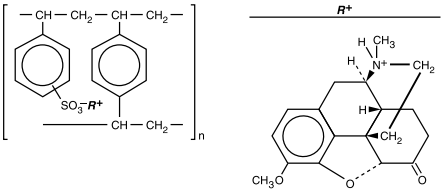
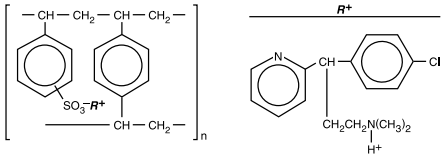
Extended-Release Suspension

DESCRIPTION: Each teaspoonful (5 mL) of TUSSIONEX Pennkinetic Extended-Release Suspension contains hydrocodone polistirex equivalent to 10 mg of hydrocodone bitartrate and chlorpheniramine polistirex equivalent to 8 mg of chlorpheniramine maleate. TUSSIONEX Pennkinetic Extended-Release Suspension provides up to 12-hour relief per dose. Hydrocodone is a centrally-acting narcotic antitussive. Chlorpheniramine is an antihistamine. TUSSIONEX Pennkinetic Extended-Release Suspension is for oral use only.

Hydrocodone Polistirex: Sulfonated styrene-divinylbenzene copolymer complex with 4,5α-epoxy-3-methoxy-17-methylmorphinan-6-one.



Chlorpheniramine Polistirex: Sulfonated styrene-divinylbenzene copolymer complex with 2-[p-chloro-α-[2-(dimethylamino)ethyl]-benzyl]pyridine.



Inactive Ingredients: Ascorbic acid, D&C Yellow No. 10, ethylcellulose, FD&C Yellow No. 6, flavor, high fructose corn syrup, methylparaben, polyethylene glycol 3350, polysorbate 80, pregelatinized starch, propylene glycol, propylparaben, purified water, sucrose, vegetable oil, xanthan gum.

CLINICAL PHARMACOLOGY: Hydrocodone is a semisynthetic narcotic antitussive and analgesic with multiple actions qualitatively similar to those of codeine. The precise mechanism of action of hydrocodone and other opiates is not known; however, hydrocodone is believed to act directly on the cough center. In excessive doses, hydrocodone, like other opium derivatives, will depress respiration. The effects of hydrocodone in therapeutic doses on the cardiovascular system are insignificant. Hydrocodone can produce miosis, euphoria, and physical and psychological dependence.

Chlorpheniramine is an antihistamine drug (H_1 receptor antagonist) that also possesses anticholinergic and sedative activity. It prevents released histamine from dilating capillaries and causing edema of the respiratory mucosa.

Hydrocodone 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 diffusion rate-limiting permeable coating. Chlorpheniramine release is prolonged by use of an ion-exchange polymer system.

Following multiple dosing with TUSSIONEX Pennkinetic Extended-Release Suspension, hydrocodone mean (S.D.) peak plasma concentrations of 22.8 (5.9) ng/mL occurred at 3.4 hours. Chlorpheniramine mean (S.D.) peak plasma concentrations of 58.4 (14.7) ng/mL occurred at 6.3 hours following multiple dosing. Peak plasma levels obtained with an immediate-release syrup occurred at approximately 1.5 hours for hydrocodone and 2.8 hours for chlorpheniramine. The plasma half-lives of hydrocodone and chlorpheniramine 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 hydrocodone or chlorpheniramine.

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

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. Hydrocodone affects the center that controls 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 antagonized by the use of naloxone hydrochloride and other supportive measures when indicated (see OVERDOSAGE).

Head Injury and Increased Intracranial Pressure: The respiratory depressant effects of narcotics and their capacity to elevate 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 obscure the clinical course of patients with head injuries.

Acute Abdominal Conditions: The administration of narcotics may obscure the diagnosis or clinical course of patients with acute abdominal conditions.

Obstructive Bowel Disease: Chronic use of narcotics may result in obstructive bowel disease especially in patients with underlying intestinal motility disorder.

Pediatric Use: In pediatric patients, as well as adults, the respiratory center is sensitive to the depressant action of narcotic cough suppressants in a dose-dependent manner. Benefit to risk ratio should be carefully considered, especially in pediatric patients with respiratory embarrassment (e.g., croup) (see PRECAUTIONS).

PRECAUTIONS: General: Caution is advised when prescribing this drug to patients with narrow-angle glaucoma, asthma, or prostatic hypertrophy.

Special Risk Patients: As with any narcotic agent, TUSSIONEX Pennkinetic Extended-Release Suspension should be used with caution in elderly or debilitated patients and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy, or urethral stricture. 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/or 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 resin-binding and change the absorption rate, possibly increasing the toxicity.

Keep out of the reach of children.

Cough Reflex: Hydrocodone suppresses the cough reflex; 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, antihistaminics, antipsychotics, antianxiety 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 hydrocodone preparations may increase the effect of either the antidepressant or hydrocodone.

The concurrent use of other anticholinergics with hydrocodone may produce paralytic ileus.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Carcinogenicity, mutagenicity, and reproductive studies have not been conducted with TUSSIONEX Pennkinetic Extended-Release Suspension.

Pregnancy: Teratogenic Effects – Pregnancy Category C
Hydrocodone has been shown to be teratogenic in hamsters when given in doses 700 times the human dose. There are no adequate and well-controlled studies in pregnant women. TUSSIONEX Pennkinetic Extended-Release Suspension should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nonteratogenic Effects: Babies born to mothers who have been taking opioids regularly prior to delivery will be physically dependent. The withdrawal signs include irritability and excessive crying, tremors, hyperactive reflexes, increased respiratory rate, increased stools, sneezing, yawning, vomiting, and fever. The intensity of the syndrome does not always correlate with the duration of maternal opioid use or dose.

Labor and Delivery: As with all narcotics, administration of TUSSIONEX Pennkinetic Extended-Release Suspension to the mother shortly before delivery may result in some degree of respiratory depression in the newborn, especially if higher doses are used.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants from TUSSIONEX Pennkinetic Extended-Release Suspension, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use: Safety and effectiveness of TUSSIONEX Pennkinetic Extended-Release Suspension in pediatric patients under six have not been established (see WARNINGS).

Geriatric Use: Clinical studies of TUSSIONEX did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

This drug is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function.

ADVERSE REACTIONS: Central Nervous System: Sedation, drowsiness, mental clouding, lethargy, impairment of mental and physical performance, anxiety, fear, dysphoria, euphoria, dizziness, psychic dependence, mood changes.

Dermatologic System: Rash, pruritus.

Gastrointestinal System: Nausea and vomiting may occur; they are more frequent in ambulatory than in recumbent patients. Prolonged administration of TUSSIONEX Pennkinetic Extended-Release Suspension may produce constipation.

Genitourinary System: Ureteral spasm, spasm of vesical sphincters, and urinary retention have been reported with opiates.

Respiratory Depression: TUSSIONEX Pennkinetic Extended-Release Suspension may produce dose-related respiratory depression by acting directly on brain stem respiratory centers (see OVERDOSAGE).

Respiratory System: Dryness of the pharynx, occasional tightness of the chest.

DRUG ABUSE AND DEPENDENCE: TUSSIONEX Pennkinetic Extended-Release Suspension is a Schedule III narcotic. Psychic dependence, physical dependence and tolerance may develop upon repeated administration of narcotics; therefore, TUSSIONEX Pennkinetic Extended-Release Suspension should be prescribed and administered with caution. However, psychic dependence is unlikely to develop when TUSSIONEX Pennkinetic Extended-Release Suspension is used for a short time for the treatment of cough. Physical dependence, the condition in which continued administration of the drug is required to prevent the appearance of a withdrawal syndrome, assumes clinically significant proportions only after several weeks of continued oral narcotic use, although some mild degree of physical dependence may develop after a few days of narcotic therapy.

OVERDOSAGE: Signs and Symptoms: Serious overdosage with hydrocodone is characterized by respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, skeletal muscle flaccidity, cold and clammy skin, and sometimes bradycardia and hypotension. Although miosis is characteristic of narcotic overdose, mydriasis may occur in terminal narcosis or severe hypoxia. In severe overdosage apnea, circulatory collapse, cardiac arrest and death may occur. The manifestations of chlorpheniramine overdosage may vary from central nervous system depression to stimulation.

Treatment: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and the institution of assisted or controlled ventilation. The narcotic antagonist naloxone hydrochloride is a specific antidote for respiratory depression which may result from overdosage or unusual sensitivity to narcotics including hydrocodone. Therefore, an appropriate dose of naloxone hydrochloride should be administered, preferably by the intravenous route, simultaneously with efforts at respiratory resuscitation. Since the duration of action of hydrocodone in this formulation may exceed that of the antagonist, the patient should be kept under continued surveillance and repeated doses of the antagonist should be administered as needed to maintain adequate respiration. For further information, see full prescribing information for naloxone hydrochloride. An antagonist should not be administered in the absence of clinically significant respiratory depression. Oxygen, intravenous fluids, vasopressors and other supportive measures should be employed as indicated. Gastric emptying may be useful in removing unabsorbed drug.

DOSAGE AND ADMINISTRATION

Shake well before using.

Adults and Adolescents ≥ 13 Years of Age
5 mL (1 teaspoonful) every 12 hours; do not exceed 10 mL (2 teaspoonfuls) in 24 hours.

Children 6-12 Years of Age
2.5 mL (1/2 teaspoonful) every 12 hours; do not exceed 5 mL (1 teaspoonful) in 24 hours.

It is important that TUSSIONEX be measured accurately. A household teaspoonful is not an accurate measuring device and could lead to overdosage, especially when half a teaspoon is to be measured. It is strongly recommended that an accurate measuring device be used. A pharmacist can provide an appropriate measuring device and can provide instructions for measuring the correct dose. Please ask a pharmacist for advice.

This medicine is not intended for children under 6 years of age (see CONTRAINDICATIONS).

HOW SUPPLIED: TUSSIONEX Pennkinetic (hydrocodone polistirex and chlorpheniramine polistirex) Extended-Release Suspension is a gold-colored suspension.

NDC 53014-548-67 473 mL bottle

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Shake well. Dispense in a well-closed container.

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TU1186-0807

cases occur in healthcare workers. [8] The risk to healthcare workers is markedly reduced with compliant use of universal precautions.

Clinical Features

The infection usually involves a single finger that is painful, erythematous, and swollen. It is characterized by vesicles early in the disease process. After about two weeks, the vesicles coalesce, and the infection can look similar to common bacterial infections of the hand such as paronychia and felon.

The distinction can be made by taking a careful history, and asking about risk factors. On examination, tenderness is present, but is less severe than that found in bacterial infections.

The distinction is important to make because performing an incision and drainage on a herpetic whitlow can lead to secondary bacterial infection.

Management

The diagnosis of herpetic whitlow is usually made clinically based on the appearance of the lesion and history of recurrence or potential source of inoculation.

A vesicle can be unroofed, and the fluid used in one of two ways: to make a Tzank smear which may reveal multinucleated giant cells, or to obtain a viral culture.

Herpetic whitlow usually resolves spontaneously in two to three weeks.[9] The main goals of treatment are to prevent both oral inoculation and spread of the infection, as well as to obtain symptomatic relief.

The involved digit should be kept covered with a dry dressing. Many recommend treatment with oral acyclovir (400 mg TID) for 10 days if the diagnosis is made within 48 hours of symptom onset, although the efficacy of this approach is unproven in controlled trials.[10]

Stronger evidence exists to recommend oral acyclovir for recurrent infections during the prodromal stage, as well as in immunocompromised patients.[11] No convincing evidence exists to recommend topical acyclovir for whitlow treatment.

Patients should be advised that the infection recurs in 30% to 50% of cases, but the initial infection is typically the most severe.

TENDON SHEATH INFECTION (PYOGENIC FLEXOR TENOSYNOVITIS)

Pathophysiology

Acute tenosynovial space infections in the hand tend to involve the flexor tendon sheaths and the radial and ulnar bursa. The synovial sheaths are poorly vascularized, but are rich in nutritious synovial fluid. This combination provides an ideal environment for bacterial growth. Once inoculated, infection spreads rapidly through the sheath.

Infection of the flexor tendon sheath is known as pyogenic flexor tenosynovitis, and is a surgical emergency.

Clinical Features

In 1912, Kanavel described the four clinical features of this infection.[12] They are:

1. fusiform volar swelling along course of the tendon sheath
2. swollen, red, and tender palmar surface
3. fixed flexion
4. passive DIP joint extension causing pain.

Patients will recall some distant traumatic event or a puncture wound typically on the palmar surface of the hand. The puncture likely occurs at a flexor crease because this is where the flexor tendon sheath is most superficial. Hematogenous spread can occur, but is rare.

Management

Early diagnosis is absolutely critical to reduce the amount of tendon damage, as well as to minimize any long-term sequelae (i.e., disability) that might arise from this infection.

One of the conditions that can mimic pyogenic flexor tenosynovitis is a subcutaneous abscess. An abscess should not have tenderness over the entire sheath, and passive DIP joint extension should not be painful in the uninvolved surfaces.[13]

Ultrasound examination may show an abnormal effusion or abscess in the tendon sheath.[14] Plain radiographs should be ordered to look for possible foreign bodies.

Early infections may respond to a combination of intravenous antibiotics, position-of-function splinting, and elevation; operative washout may not be required. This should, however, be the decision of a subspecialist.

Typical causative organisms include common skin flora such as *Staphylococcus* and *Streptococcus*. In immunocompromised patients, typical and atypical organisms such as *Candida albicans* and disseminated *Neiserria gonorrhea*, both of which have been reported as causes of pyogenic flexor tenosynovitis, should be suspected.[15-17]

Empiric therapy should be initiated in urgent care as soon as the presumptive diagnosis is made, and includes cefazolin or clindamycin. Alternatively, for immunocompromised patients or those where *N gonorrhea*

is a concern, ampicillin/sulbactam or cefoxitin (or, if allergic to penicillin, clindamycin plus a fluoroquinolone or sulfamethoxazole and trimethoprim) should be started. Tetanus prophylaxis should be administered if necessary.

Further management should be decided upon with or by a hand surgeon. Early involvement of a hand surgeon can facilitate timely and efficient patient management.[18]

The surgeon will decide if surgery is indicated, but it is essential that the urgent care clinician provide the information needed to ascertain whether immediate transfer is warranted. These discussions should be documented thoroughly for both optimal patient care, and to reduce medical malpractice liability.

Patients should always be educated regarding the serious potential nature of these infections and the crucial need to be compliant with after-care instructions.

Systemically ill and immunocompromised patients should be evaluated the same day, as they are more prone to serious complications from this infection.

Summary

It is common for patients to present to urgent care with symptoms caused by hand infections. Correct identification of their origin followed by aggressive, timely, and appropriate management supports attainment of a good outcome. ■

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The Case of a 46-Year-Old Man with Neck and Upper Back Pain

Bouncebacks, ***in which we recount scenarios of actual patients who were evaluated in and discharged from an emergency department or urgent care facility and then "bounced back" for further treatment, appears semimonthly in*** **JUCM.**

Case presentations on each patient, along with case-by-case risk management commentary by Gregory L. Henry, past president of The American College of Emergency Physicians, and discussions by other nationally recognized experts are detailed in the book **Bouncebacks! Emergency Department Cases: ED returns** ***(2006, Anadem Publishing,*** **www.anadem.com).**

Michael B. Weinstock, MD and Ryan Longstreth, MD, FACEP

This article is the second in a series that will sequentially answer the following questions:

What is the incidence of bouncebacks?

What is the incidence of bounceback admissions?

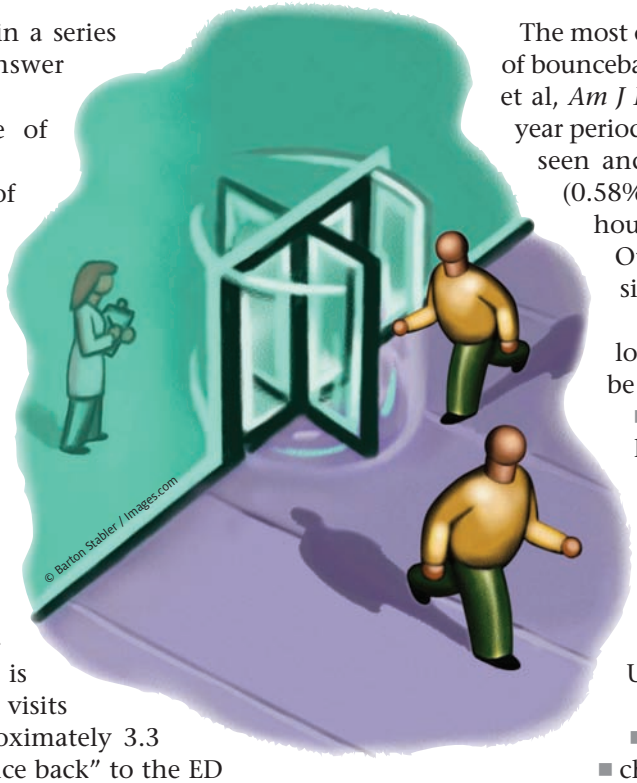
What is the incidence of deaths in patients recently discharged from the ED?

What percent of bouncebacks occur because of medical errors?

How can we use this information to improve patient safety?

In the September issue of *JUCM*, we discussed several studies which found the incidence of ED bouncebacks is 3%; of the 115 million ED visits per year in the U.S., approximately 3.3 million patients will "bounce back" to the ED within 72 hours.

This month, we turn our attention to Question II: What is the incidence of bounceback admissions?



The most comprehensive recent study of bounceback admissions (Martin-Gill, et al, *Am J Emerg Med*) spanned a two-year period with 104,584 new patients seen and discharged; 609 patients (0.58%) were admitted within 72 hours of their initial ED visit. Other studies have reached similar conclusions.

Martin-Gill found the following groups more likely to be admitted on ED return:

- Age >65 (three times more likely to require admission than patients <30 years of age)

Patient with the following diagnoses:

- mental disorder
- GU system disorder/ UTI and urinary calculus
- alcohol-related disorder
- abdominal pain
- chest pain

The direct answer to the question of bounceback admissions—0.6%—equates to roughly 660,000 patients per year.

Not all of these admissions occur because of medical errors, however. Patients are asked to return with worsening symptoms or if their illness does not respond to therapy, but many return because of an error made during the initial encounter.

How can we use this information to improve patient safety?

Martin-Gill reached the following conclusion: "By identifying high-risk patients prospectively, physicians will be better able to make informed decisions when considering the depth of evaluation, timing of discharge decisions, and extent of follow-up care."

If we are able to recognize which patients are "high risk," we can attempt a more thorough evaluation. We can spend extra time with documentation and explanation of the follow-up plan.

This issue's case demonstrates these principles; the patient is a 46-year-old man who initially presented to his primary care physician with "neck and trapezius pain" and then presented to the ED later that day.

His symptoms did not improve and he presented to an urgent care clinic the next day, was sent home, and then presented to urgent care again the following day.

Within 24 hours he was back at the ED. His initial ED presentation (detailed below) seemed straightforward, but at the final ED visit, after his symptoms had progressed, the correct diagnosis was finally, astutely determined.

This patient was one of the 660,000 yearly bounce-back admissions. His outcome could have been very different if not for the quick thinking of the final physician.

A 46-Year-Old Man with Neck and Upper Back Pain

Initial ED Visit

(Note: The following is the actual documentation of the providers, including punctuation and spelling errors.)

CHIEF COMPLAINT (at 23:28): Back pain

Time	Temp	Pulse	Resp	Syst	Diast	Pain
23:30	96.4	87	18	166	94	7-8
01:22	80	18	146	86		

HISTORY OF PRESENT ILLNESS (at 00:28): Pt has had left sided neck and trapezius pain for two days now. He thinks he slept on it "funny." He has not had any direct trauma. No numbness, tingling, or weakness of the extremities. He saw his family doctor today who prescribed Skelaxin and Bextra for a muscle spasm. He has taken these without any relief. No fever, wt. change, visual changes, cp, sob, edema, cough, n/v/d, abd. pain, urinary symptoms, HA, weakness, loc, rash.

PAST MEDICAL HISTORY/TRIAGE:
Medications: Bextra, Skelaxin, Percocet, Valium
Allergies: No known allergies.
PMH: None
PSH: Cholecystectomy, Tonsillectomy
Soc Hx: Tobacco use: (+), Alcohol use: (+)

EXAM (at 00:29):
General: Alert and oriented X3, well-nourished, well appearing, in no apparent distress
Head: Normocephalic; atraumatic.
Eyes: PERRL
Neck: Increased muscle spasm left trapezius region, no midline neck tenderness, no step off or crepitance. No ecchymosis or erythema.
Nose: The nose is normal in appearance without rhinorrhea
Resp: Normal chest excursion with respiration; breath sounds clear and equal bilaterally; no wheezes, rhonchi, or rales
Card: Regular rhythm, without murmurs, rub or gallop
Abd: Non-distended; non-tender, soft, without rigidity, rebound or guarding
Skin: Normal for age and race; warm and dry; no apparent lesions

ORDERS: C-spine series, Ibuprofen 600mg PO, Lortab 5mg PO to go, Valium 5mg PO to go

RESULTS: Cervical spine series, five views (final radiologist reading): Degenerative findings at C4-5 and C5-6. No acute osseous abnormalities are identified.

DIAGNOSIS (at 01:27): Acute Cervical/trapezius strain
DISPOSITION: The patient was discharged to Home ambulatory accompanied by self with prescriptions for Vicodin (12) and Valium (10). After care instructions for cervical strain. Follow up with PCP in 2 days. He was released from the ED at 01:45.

Discussion of Risk Management Principles

(Note: In previous *JUCM* articles, we have detailed mostly errors made during the initial ED evaluation.

In this case, however, the patient had a thorough and well-documented evaluation; we will discuss some of the finer points of the evaluation.)

Quality measure 1: Excellent history.

Discussion: This patient was high risk and a likely candidate to bounce back, as he had seen his PCP the same day as his ED visit. The history describes the location and duration of pain, and his response to medication. He has a (potential) mechanism, having slept on his left side in a "funny way," so arriving at the diagnosis of cervical/trapezius strain seems reasonable.

Teaching point: The history is the most important part of the evaluation.

Quality measure 2: Excellent review of systems (ROS).

Discussion: Many of the potentially serious/life-threatening causes of neck/back pain are explored in the ROS. The provider explored the symptom of *fever* to evaluate for abscess, meningitis, and endocarditis. *Weight change* screens for cancer. *Visual changes* looks for aortic/carotid dissection. *Chest pain* and *shortness of breath* look for atypical presentations of acute coronary syndrome, pulmonary embolism, and pneumothorax. *Cough* screens for pneumonia. *Abdominal pain* looks for pancreatitis or other intrabdominal pathology. *Urinary symptoms* screen for pyelonephritis.

Teaching point: Your neighbor is usually correct about the etiology of back pain (i.e., back strain). In these seemingly straightforward cases, our job is to make sure something more serious is not occurring.

Quality measure 3: The physical exam supports the diagnosis.

Discussion: The physical exam includes a visual inspection of the skin (excluding zoster and cellulites/abscess) and finds pain in the anatomic region of the patient's complaints

Teaching point: A good physical exam should support the patient's diagnosis and exclude other serious diagnoses.

Quality measure 4: Good after-care instructions.

Discussion: Despite all symptoms and signs pointing to one diagnosis, occasionally there will be a rare illness masquerading as something common. The patient was given instructions for cervical strain, and advised to see his PCP in several days for follow-up. Documenting the after-care discussion in the chart is vital when there is diagnostic uncertainty.

Teaching point: One of the most important risk management tools is to speak with the patient and his family before urgent care discharge to ensure understanding of the diagnosis and follow-up care.

A 46-Year-Old Man with Neck and Upper Back Pain

ED Return Three Days Later

The patient was seen at an urgent care center two days ago and diagnosed with cervical muscle spasm and cervical arthritis and prescribed Percocet (acetaminophen and oxycodone).

He was seen again at urgent care yesterday and had a normal CXR and was diagnosed with a back strain and prescribed Valium (diazepam).

Final ED Visit

CHIEF COMPLAINT: Back pain

Time	Temp	Pulse	Syst	Diast
14:49	99.2	121	178	100

ED HISTORY DOCUMENTS: He denies any loss of function in his extremities, but his pain seems minimally worsened when he moves his arms, but he states that it is so intense there is little he can do to get into a comfortable position. He has never had any problems like this before. He denies any history of trauma. Physical exam is similar to exam from previous ED visit, but pt. seems to be in much more pain.

15:58: Initial orders for Dilaudid (hydromorphone) and Phenergan (promethazine).

16:48: His vital signs are rechecked and now temp is 103.2 degrees.

16:51: Labs ordered and showed WBC count 8.5, Hb 14.8 and all others including lytes, BUN/creat, cardiac enzymes were normal.

17:07: Progress note documents, "…the patient's condition is worsening and he is now in excruciating pain of cervical, thoracic and lumbar spine. Also has developed left sided weakness. ED physician speaks with radiologist who does not feel there is an emergent indication for MRI of these areas. Multiple calls ensue from ED physician to neurologist twice, PCP, ID consultant, and neurosurgeon." Eventually radiologist acquiesces to the MRI.

21:05: Radiology report (MRI cervical spine without and with contrast) reveals this to be a "very unusual case." There appears to be compression of the cord between approximately C3 and C6 by a mixture of pathology, including degenerative change, possible disk protrusions, but also some inflammatory change (less likely

neoplastic change), which is resulting in fairly prominent epidural enhancement circumferentially in the canal and also is probably related to the prevertebral soft tissue swelling and enhancement that is present in the back of the pharynx from about C1 to C6.

22:15: Orders for clindamycin and Decadron (dexamethasone).

ED DIAGNOSIS: Spinal cord compression *and* acute paravertebral soft-tissue infection versus abscess.

02:07: Pt. transferred to OR.

POSTOPERATIVE DIAGNOSIS: Cervical epidural abscess C3-6 with spinal cord compression, myelopathy, left hemiparesis. The patient was extubated in surgery and awoken moving all 4s.

He left the hospital in good condition with minimal residual left sided weakness.

FINAL DIAGNOSIS: Epidural compression syndrome.

"The cornerstone of management is acute surgical intervention followed by IV antibiotics."

Discussion of Risk Management Principles and Case

Who could have predicted the final diagnosis at the initial visit? Certainly not the initial PCP, ED doctor, or two urgent care doctors.

Luckily, on the patient's fifth visit in less than one week, he developed a fever and neurologic symptoms of spinal cord compression while in the ED, and the diagnosis was apparent.

This is the type of patient we see 20 times a week in the urgent care setting, and my guess is that all 20 are appropriately sent home with a prescription for an NSAID and pain control.

Sometimes, a patient presents with symptoms so general that it is impossible to make an accurate diagnosis (i.e., the initial symptom of nausea, with subsequent progression to a diagnosis of appendicitis). At that point, the patient needs to understand the doctor-patient relationship is a two-way street; if a definitive diagnosis is not able to be made during the initial encounter, the patient needs to understand serious diagnoses are still possible, and worsening symptoms require re-evaluation.

This discussion should be detailed in a progress note.

Epidural compression syndrome can be caused by infection (as in our patient), hemorrhage, tumor, or massive midline disk herniation. Spinal epidural abscess is rare, occurring in 0.2 to 1.2 cases per 10,000 hospital admissions, but has been increasing since 1988 due to the increase in intravenous drug use and invasive spinal procedures.

A records review by Rigamonti, et al, found 75 patients diagnosed with spinal epidural abscess from 1983 to 1992; 64% were male, with an average age of 50.7 years (range of 3 months to 83 years).

Comorbid conditions included intravenous drug use (33%), diabetes mellitus (27%), and prior spinal surgery (17%). Other predisposing factors include history of malignancy, obesity, HIV/AIDS, end-stage renal disease, urinary tract infection, cellulitis, endocarditis, dental abscess, pneumonia, and chronic steroid use.

The predominant organism found in spinal epidural abscess is *Staphylococcus aureus* seeded from hematogenous spread. Other organisms include *Streptococcus viridans, Streptococcus pyogenes,* and *Escherichia coli* and *Mycobacterium tuberculosis*. *Haemophilus parainfluenzae* and Brucella species have also been reported. Those who are immunocompromised are at risk of developing *Cryptococcus*, *Aspergillus*, or *Blastomyces*.

Distinguishing features on history and physical exam include back or neck pain, progressive neurologic deficit, and low-grade fever, but this "classic triad" is only present 37% of the time. Fever is present in 30% to 60% of cases. Less than 30% of patients have a motor deficit at initial presentation. Urinary retention with overflow incontinence has a sensitivity of 90% and specificity of 95%. Sciatica in one or both legs, weakness of the extremities, gait difficulty, or abnormal straight leg raise testing may be present.

The patient may have symptoms for weeks to months before the correct diagnosis is established; with our patient, symptoms were present less than a week. An epidural abscess is best visualized by MRI.

Prognosis is heavily dependent on comorbid conditions. Advanced patient age and degree of thecal sac compression are associated with poor outcome. Early

diagnosis and appropriate management (surgery and antibiotics) are associated with improved prognosis, although symptom duration is not a foolproof predictor of outcome.

Neurologic deficits over 12 hours old are rarely recovered, and patients with paralysis over 36 hours have a mortality rate of approximately 14%.

The cornerstone of management is acute surgical intervention followed by IV antibiotics; however, some patients can be managed without surgery.

Distinguishing Urgent Care

What separates us from the "diagnose-o-meter" at Walmart? It is the ability to recognize red flags and serious disease. This ability helped to avoid a major neurologic catastrophe in our seemingly innocuous patient. ■

Suggested Readings

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Case Report

Ruptured Ectopic Pregnancy with a Negative Urine Pregnancy Test

Urgent message: Ectopic pregnancy must be considered in women of childbearing age who present with abdominal pain—even if 'ruled out' by a negative hCG test.

Yi-An A. Lee, MD, MPH, Gino Farina, MD, and Helene Lhamon, MD

Introduction

The incidence of ectopic pregnancy is estimated to be 19.7 per 1,000 pregnancies and is responsible for 9% of pregnancy-related deaths.[1] Ectopic pregnancy is always near the top of the differential diagnosis for abdominal pain in women of childbearing age, but is generally considered to be ruled out by a negative urine human chorionic gonadotropin (hCG) level.

Standard urine hCG tests are able to detect ß hCG levels as low as 20 mIU/mL. This case report shows that an ectopic pregnancy can exist and be large enough to rupture at ß hCG levels below the threshold detectable by urine pregnancy screening tests. Considering the mortality and morbidity associated with a ruptured ectopic pregnancy, this case report emphasizes the necessity of confirming a negative serum quantitative hCG before ruling out ectopic pregnancy.

[*Note: While this case report concerns a patient who presented in an ED setting, abdominal pain is a common presenting complaint in urgent care. The teaching points are highly relevant to the urgent care practitioner.*]

Case Report

A 36-year-old female gravida 0 prima 0 whose last menstrual period was two months prior presented to the emergency department with the chief complaint of severe abdominal pain that awakened her from sleep. She described the pain as 10 out of 10 in severity (i.e., the worst pain imaginable in the patient's estimation); the pain was greatest in the left lower quadrant, and became worse with any motion.

The review of systems was pertinent for the presence of vaginal spotting and right shoulder pain, and for the absence of chest pain, shortness of breath, syncope, or fever.

The patient's past medical history was significant for infertility, fibroids, and irregular menses. She had no prior surgical history, took no medications, and had no allergies. She had no risk factors for ectopic pregnancy: no history of sexually transmitted diseases or pelvic inflammatory disease, no prior gynecological surgery, no intrauterine device use, and she was not taking fertility medications.

Her initial vitals were as follows:

- **BP** 90/52
- **Heart rate** 103
- **Respiratory rate** 24
- **Temperature** 36.7 C (98.1°F)
- **Pulse oximetry** 100% on room air

The patient was clearly uncomfortable, but not in acute distress. Cardiac exam revealed a regular rate and rhythm. Pulmonary exam was clear to auscultation bilaterally. Abdominal exam revealed positive bowel sounds, soft without guarding but extremely tender to palpation, with diffuse rebound and a positive pelvic shake. Pelvic exam was notable for cervical motion tenderness and bilateral adnexal region tenderness; uterine and adnexal size were difficult to assess secondary to pain.

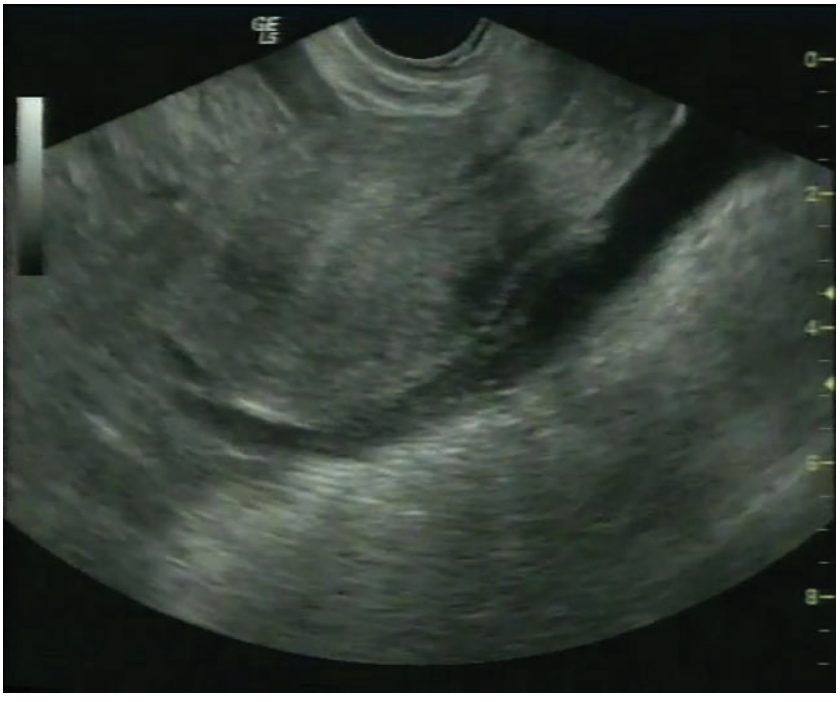
The urine hCG was negative. Intravenous access was obtained, and a complete blood count, chemistry panel, blood type and cross, and serum quantitative hCG were sent to the laboratory. The patient was given intravenous fluids and the ob/gyn service was promptly consulted.

The ob/gyn physician performed a bedside ultrasound, which showed free fluid and a left adnexal mass; the patient was taken immediately to the operating room with the presumptive diagnosis of a ruptured hemorrhagic ovarian cyst.

In the operating room, she was found to have one liter of free blood and a ruptured left tubal pregnancy.

A left salpingectomy was performed. The patient did well and was discharged home on postoperative day 2.

The serum quantitative hCG was eventually reported as 13mIU/mL.



Discussion

ß hCG is produced by the trophoblasts of both intrauterine and ectopic pregnancies.[1] Using modern assays that can detect serum ß hCG levels as low as 5 mIU/mL, the hormone may be detected in the serum as early as one week postconception.[1]

ß hCG levels in normal intrauterine pregnancies double every 1.4 to 2.1 days; therefore, urine pregnancy tests which can detect ß hCG levels as low as 20 mIU/mL to 25 mIU/mL are usually positive by the first day of the next expected menstrual period. Even in a normal intrauterine pregnancy, false negative urine pregnancy results may occur if the urine is very dilute.

Four theoretical mechanisms have been proposed to explain unusually low or undetectable ß hCG levels in ectopic pregnancies:[2]

- Trophoblast degeneration with resultant decrease or absence of hormone production (more likely to occur in chronic ectopic pregnancies)
- Very small volume of trophoblastic tissue, likely due to the slow growth of an improper implantation
- Defective ß hCG synthesis by ectopic trophoblasts; cases have been documented by immunohistochemical stains
- Rapid clearance of ß hCG from the serum, possibly related to defective hormone synthesis causing a modified molecule with a higher rate of clearance

A negative urine hCG does not definitively rule out ectopic pregnancy, regardless of the date of the last menstrual period. If suspicion of pregnancy exists, a serum quantitative ß hCG should be obtained.

Because ß hCG levels do not rise normally in ectopic pregnancies, ectopic pregnancies can be large enough to rupture at very low ß hCG levels.

An article by Brennan notes that 10% of ectopic pregnancies with a quantitative ß hCG <100 mIU/mL were ruptured, and that 7% of all ectopic ruptures occurred at levels <100 mIU/mL.[3]

Furthermore, Galstyan, et al, found the range in serum ß hCG between ruptured and unruptured tubal ectopic pregnancies to be broad and non-significant.[4] A low ß hCG level should not be considered reassurance that rupture is unlikely.

It is commonly accepted that one should not expect to see ultrasonographic findings consistent with an intrauterine pregnancy with a quantitative ß hCG of less than 1200 mIU/mL.[5] However, this discriminatory threshold does not apply to ectopic pregnancies; it would be a dangerous error to forego ultrasound to rule out an ectopic on the basis of a low serum hCG. One study demonstrated that 56% of ectopic pregnancies confirmed by ultrasound had serum hCG levels below 500 mIU/mL.[6]

Teaching Points

This case highlights several important points:

- A negative urine hCG does not rule out pregnancy.
- Even at very low ß hCG levels, ectopic pregnancies can (and do) rupture.

"Negative screening tests may lull the busy practitioner into a false feeling of security."

- A ß hCG below the accepted discriminatory range for normal pregnancies does not preclude the utility of ultrasound in ectopic pregnancies.

Conclusion

Ectopic pregnancies that present to an acute care setting may be large enough to rupture at ß hCG levels below the threshold detectable by urine pregnancy screening tests or the discriminatory range of serum ß hCG levels.

While similar cases have been reported in the past,[7-9] they are infrequent; thus, a similar presentation with negative screening tests may lull the busy practitioner into a false sense of security.

This case serves to emphasize the importance of obtaining an ultrasound, irrespective of urine and/or serum hCG levels any time an ectopic pregnancy is suspected. ■

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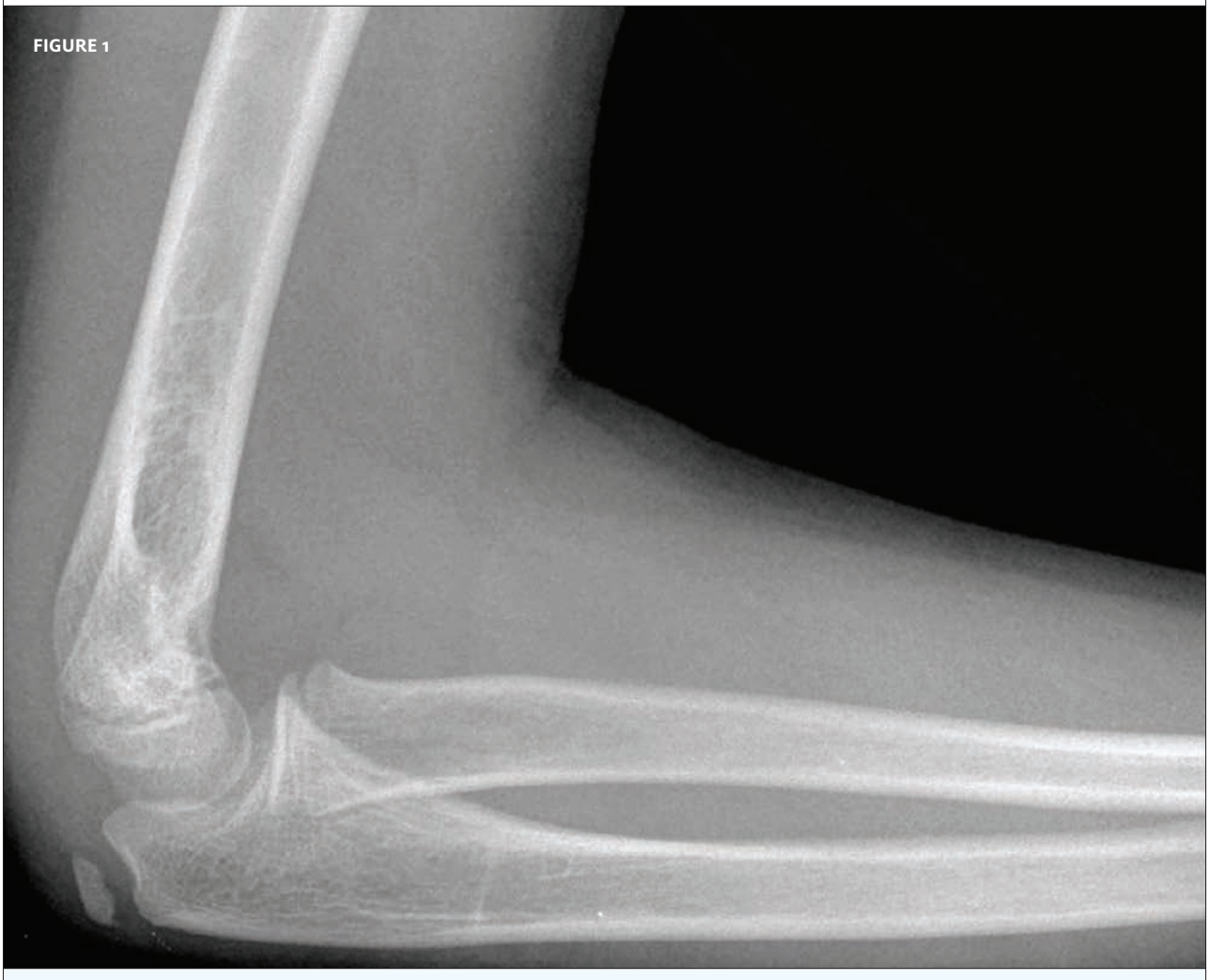
INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 1

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

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

FIGURE 1



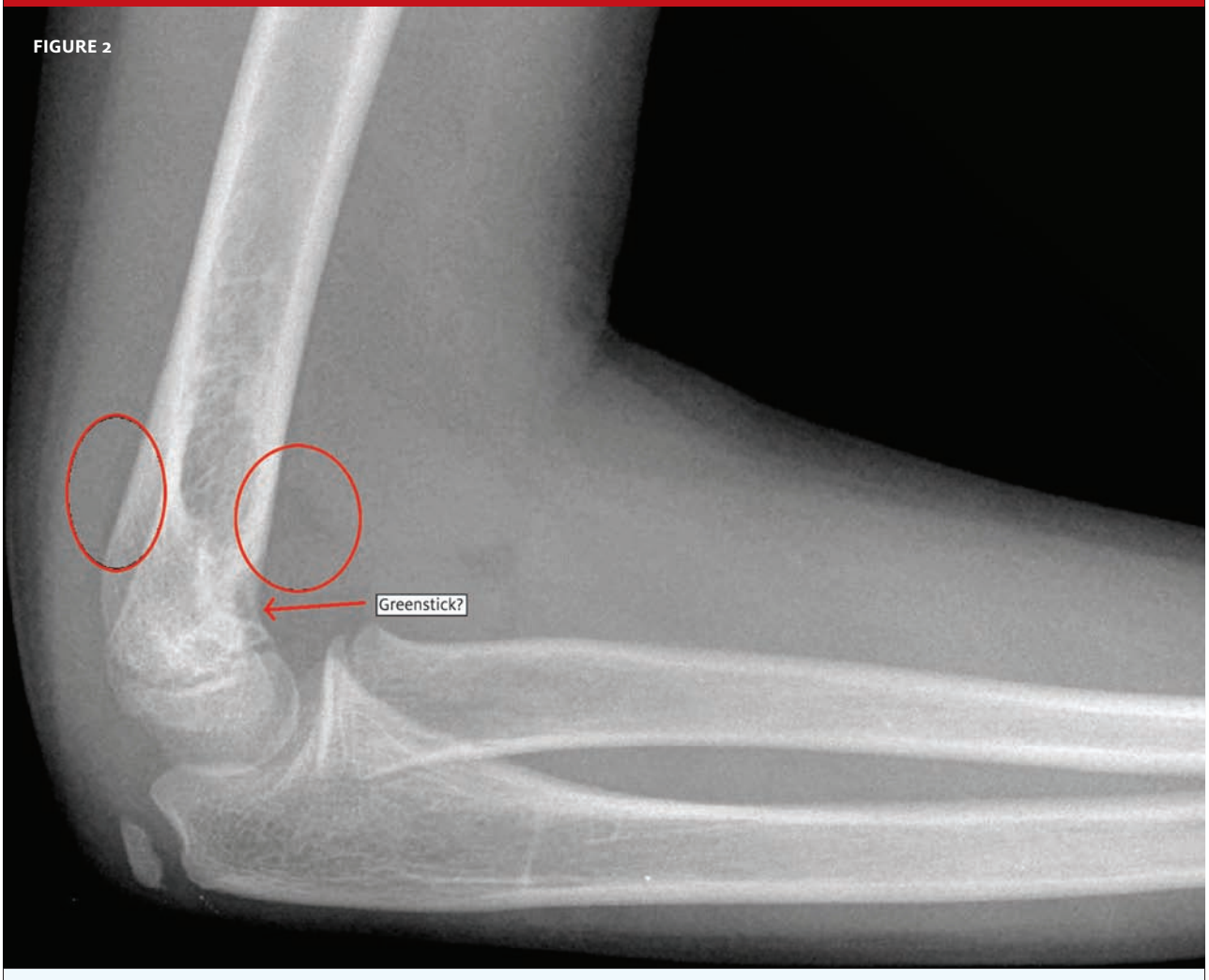
The patient is a 10-year-old boy who experienced a direct blow to the elbow approximately six hours prior to presentation.

He had incomplete range of motion with minimal local swelling and considerable pain.

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 RESOLUTION

FIGURE 2



Treatment for this case is based on the clinical picture.

There is an increased fat pad anteriorly and a posterior fat pad (which is pathological). The question is whether this is secondary to a supracondylar fracture or to a radial head fracture (or neither).

There is a question if the angle of the distal humerus is heightened (consistent with a supracondylar fracture), but then this would be a minimally displaced fracture.

If the pain is in the proximal forearm and there is good range of motion, then this is likely a radial head fracture (or even just a contusion) and a sling is sufficient.

If, on the other hand, the pain is more over the elbow and distal upper arm and there is marked swelling, the best approach is a posterior cast splint from the upper arm around the elbow to the forearm.

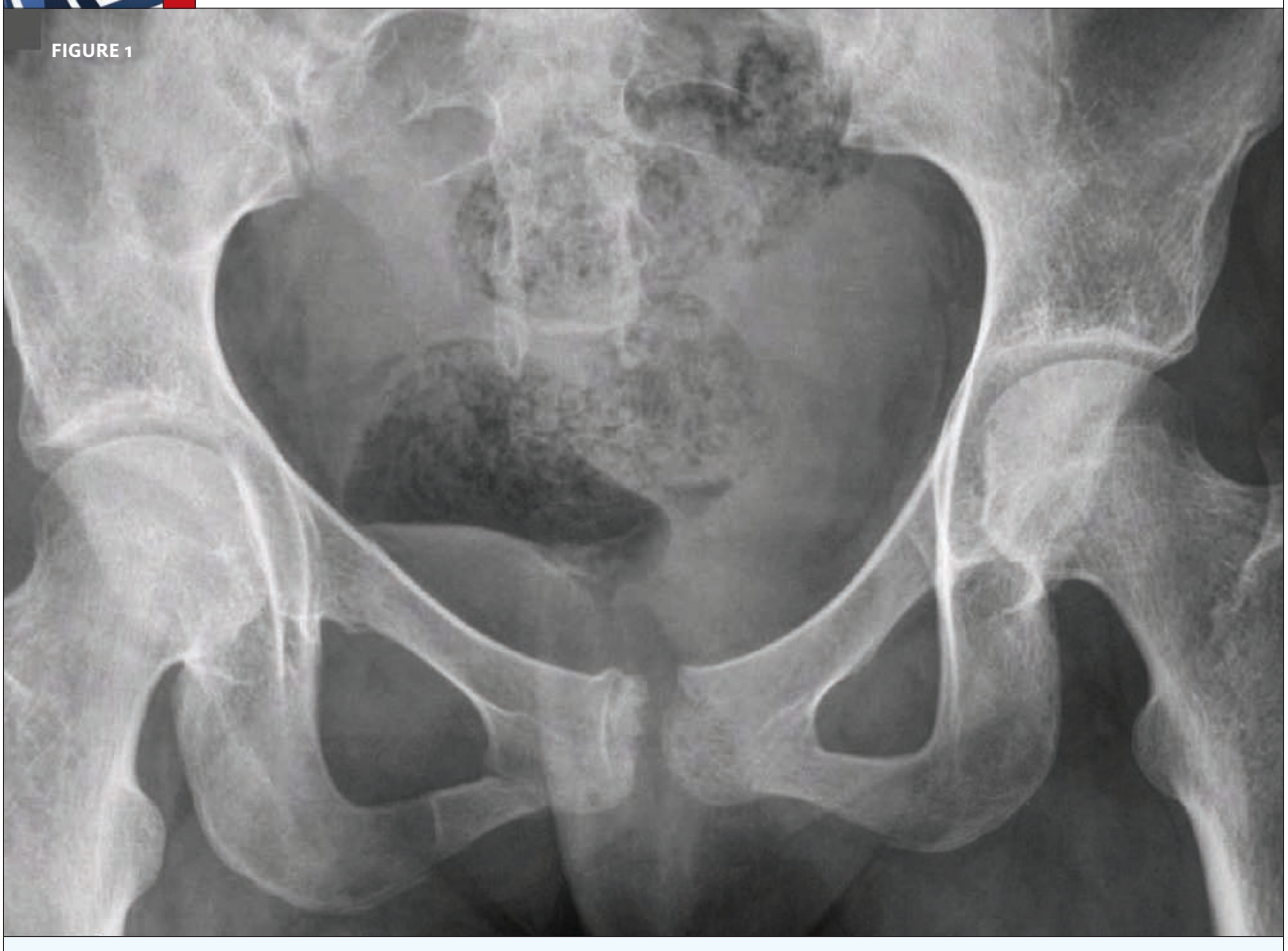
Given the pain and limitation of range of motion, a posterior slab was applied in the urgent care clinic and the patient was referred to orthopedic follow-up for reassessment of the situation the next day.

Acknowledgment: Case presented by Nahum Kovalski, BSc, MDCM.

INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 2

FIGURE 1

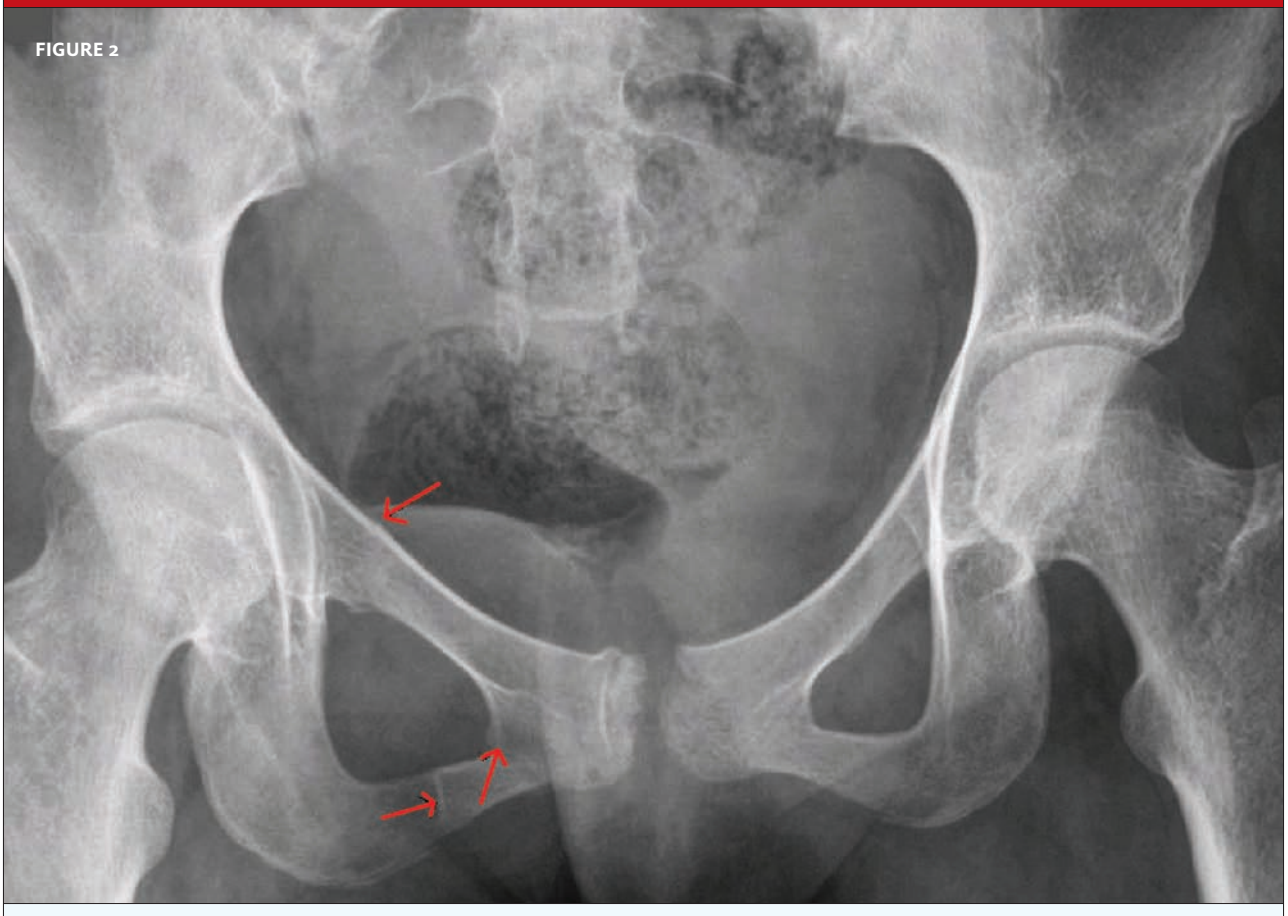


The patient is a 16-year-old girl who received a blow to the right hip when she fell in her bathroom at home. She is able to ambulate, albeit with great pain and guarding of her right leg. Her vital signs are stable.

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 RESOLUTION

FIGURE 2



The correct diagnosis is a pelvic fracture, along with fractures of the right ischium and the right symphysis pubis.

Given the severe pain, this patient was referred to hospital for further orthopedic evaluation, although it was recognized that this was a stable fracture and the patient would require pain control and orthopedic outpatient follow-up.

Acknowledgment: Case presented by Nahum Kovalski, BSc, MDCM.

On Pediatric Orthopedic Pain, Constipation and Abdominal Pain, Nonurgent Visits to the ED, and Febrile Illness in the ED

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.

Effectiveness of Oxycodone, Ibuprofen, or the Combination in the Initial Management of Orthopedic Injury-Related Pain in Children

Key point: Oxycodone, ibuprofen, and the combination all provide effective and similar analgesia for mild-to-moderate orthopedic injuries in children. Ibuprofen, alone, is a legitimate and effective choice.

Citation: Koller DM, Myers AB, Lorenz D, et al. *Pediatr Emerg Care*. 2007;23(9):627-633.

Orthopedic injuries comprise a majority of the indications for analgesia in the emergency department. Oxycodone and ibuprofen have demonstrated efficacy for this indication, but no studies have compared these drugs in children.

This prospective, randomized, double-blinded, clinical trial compared the effectiveness of oxycodone, ibuprofen, and the combination in children (age 6-18 years), with pain from a suspected orthopedic injury. Subjects were block-randomized to receive one of the three treatment regimens. Pain was assessed with the Faces Pain Scale (FPS) and Visual Analog Scale at baseline, post-immobilization, and at 30, 60, 90, and 120 minutes post-medication.

Although all three treatment groups demonstrated a decrease in the FPS score over time, there were no significant differences between the groups. Among the 66 total children enrolled in the three treatment groups, there were no statistically significant differences in demographics or injury characteristics. There were 28 subjects with fractures. Immobilization of the injury demonstrated a significant reduction in the FPS score. Subjects in the combination treatment group reported more adverse effects.

Oxycodone, ibuprofen, and the combination all provide effective analgesia for mild-to-moderate orthopedic injuries in children. Oxycodone or ibuprofen, alone, can be given, thereby avoiding the increase in adverse effects when given together. ■

Nahum Kovalski is an urgent care practitioner and assistant medical director/CIO at Terem Immediate Medical Care in Jerusalem, Israel.

Constipation as Cause of Acute Abdominal Pain in Children

Key point: Constipation was the most common cause of acute abdominal pain in children.

Citation: Loening-Baucke V, Swidsinski A. *J Pediatr*. Available at: doi:10.1016/j.jpeds.2007.05.006.

The complete charts of 962 children ≥4 years old, who were seen for at least one health maintenance visit during a six-month period, were reviewed retrospectively for complaints and cause of acute abdominal pain.

The authors found that 9% of the 962 children had a visit for acute abdominal pain, with significantly more girls (12%) than boys (5%) having this complaint.

Acute and chronic constipation were the most frequent causes of acute abdominal pain, occurring in 48% of subjects. A surgical cause was present in 2% of subjects. The cause for the acute abdominal pain remained unknown in 19% of subjects. The authors did not find significant differences in diagnoses in the primary care clinics versus emergency department.

The authors conclude that constipation was the most common cause of acute abdominal pain in children. ■

ABSTRACTS IN URGENT CARE

Appropriateness of Children's Nonurgent Visits to Selected Michigan Emergency Departments

Key point: Half of all nonurgent ED visits were rated as high appropriateness.

Citation: Stanley R, Zimmerman J, Hashikawa C, et al. *Pediatr Emerg Care*. 2007;23(8):532-536.

At 13 Michigan emergency departments, interviews were conducted with parents of children aged 6 months to 18 years who were triaged by ED personnel as lowest acuity. Interviews explored chief complaint, reason for ED visit, insurance status, attempts to call for advice before coming to the ED, and usual primary care source. Investigators rated ED visit appropriateness as high, medium, or low based on characteristics of the complaint and parent care-seeking behaviors.

Of 422 completed interviews, 51% involved parents of Medicaid enrollees, and 43% involved parents of privately insured enrollees. One third of children presented with injuries. Overall, 50% of visits were rated as high appropriateness.

When injuries were excluded, 37% of visits were rated as high appropriateness. Thirty-eight percent of parents called for advice before coming to the ED; of those, 60% were told to go to the ED.

The most common parent-reported reason for going to the ED was reassurance (41%), followed by thinking the situation was an emergency (33%). Medicaid patients who could name a primary care physician, rather than a clinic only, were more likely to have ED visits rated as high appropriateness (54% vs. 38%, $P<0.05$). ■

Short-Term Outcomes of Pediatric Emergency Department Febrile Illnesses

Key point: After ED evaluation, 23.7% of young patients made a nonscheduled revisit to the primary medical doctor or ED.

Citation: Mistry R, Stevens M, Gorelick M. *Pediatr Emerg Care*. 23(9):617-623.

This was a prospective cohort study of children aged 28 days to 18 years presenting with fever (≥38° C) or chief complaint of fever who were evaluated and discharged to home from a tertiary care pediatric emergency department.

Enrollment occurred on randomly selected study days over one year. Caregivers were then contacted via telephone after seven to 10 days to assess outcomes, including days of fever, child and family activity impairments, and return to healthcare.

Follow-up was complete for 322 (72%) of 451 enrolled subjects. Mean age of subjects was 31.5 months.

The most common discharge diagnosis was undifferentiated febrile illness (20.5%).

Mean total duration of fever was 4.41 days; 38.9% remained febrile for five days or longer.

For children, impairments in each outcome (activity, oral intake, sleep, behavior) persisted longer than 2.5 days; over 14% of them remained impaired at follow-up in each outcome.

Children missed a mean of 2.63 days of daycare or school; 37.4% missed three days or longer. Primary caregivers missed 1.47 days of work or school; 10.5% missed five days or longer.

After ED evaluation, 23.7% made a nonscheduled revisit to the primary medical doctor or ED. ■

No Appointment Needed:

The Resurgence of Urgent Care Centers in the United States

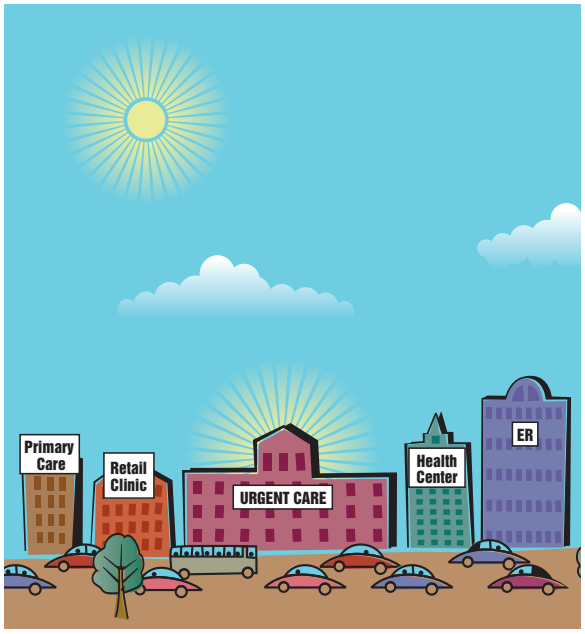
Urgent message: A new report from the California HealthCare Foundation, excerpted here, examines how the growth of urgent care is influencing delivery of healthcare—and what the prospects for the future of the industry might be.

Prepared for the California HealthCare Foundation by Robin M. Weinick, PhD and Renée M. Betancourt, BA

Introduction

The days of having a family doctor in town who cared for all of a patient's health needs are long gone. In their place, an array of services and providers has developed to meet patients' primary care needs, increasingly placing the burden on the consumer to make the appropriate choice.

This proliferation of choices includes primary care practices with one, several, or many physicians; community health centers; large multispecialty group practices that provide primary care; hospital emergency departments and, more recently, freestanding emergency departments; retail clinics; and urgent care centers. Among these, urgent care centers have emerged to fill a specific niche in the healthcare delivery system.



Urgent care centers first opened in the United States in the early 1980s. The industry declined, and then expanded in the mid-1990s. Since then, the industry has grown rapidly, to between 12,000 and 20,000 centers today.[1] By one estimate, approximately two new urgent care centers open in the United States each week.[2]

Urgent Care Centers and the Healthcare Delivery System

Urgent care centers are uniquely positioned in the healthcare delivery system. **Table 1** shows their rela-

Table 1.

	Site of Care			
	Retail Clinics	**Primary Care Practices**	**Urgent Care Centers**	**Emergency Departments**
Convenience				
Extended hours are a feature of how the site provides care				
Patient flow at the site is targeted toward providing unscheduled care				
Clinical conditions and services				
A wide range of services is provided at the site				
The site is designed to address urgent conditions				
Philosophy				
The site views its patients as customers				
Continuity of care is central to the site's relationship with patients				

Least characteristic — Most characteristic

tionship to other ambulatory care providers that offer overlapping types of service.

Urgent care centers generally emphasize convenient care and feature extended evening and weekend hours. While this is also true of retail clinics, neither typically comes close to the 24-hour-a-day, seven-day-a-week availability of services in emergency departments. Urgent care centers, retail clinics, and emergency departments all emphasize unscheduled care to a far greater extent than most primary care practices do.

At the same time, urgent care centers often provide a wider and more complex array of services that are designed to address more urgent health needs than a primary care office does. Emergency departments—particularly those in large, Level 1 trauma centers—provide the broader scope of care.

All of these settings offer a broader scope and complexity of services than retail clinics, which are designed to address a limited number of health concerns.[3]

Emphasizing a view of patients as consumers who can choose where to get their healthcare is a hallmark of urgent care centers and retail clinics, both of which take a customer service approach to providing convenient care. This view is not as prevalent in doctors' offices and emergency departments, which are designed to function around the physician's availability, rather than the patients'.

Finally, primary care places considerable emphasis on continuity of care, ideally serving as a patient's primary point of access to the healthcare system, following patients over time, providing management for chronic conditions, and coordinating specialist care.[4]

While emergency departments do serve as a usual source of care for a very small number of patients, and some patients are asked to return to the emergency department for a follow-up visit, continuity of care is generally very low. Retail clinics and urgent care centers primarily emphasize episodic care. However, the addition of occupational medicine, which often involves more than one visit for a given health condition, moves urgent care centers slightly closer to primary care offices in terms of continuity.

How Urgent Care Centers Operate

The main emphasis at urgent care centers is on episodic care. Some urgent care centers have moved beyond simple point-of-care tests such as urinalysis, pregnancy tests, and hemoglobin testing to include more complex and more regulated testing, such as troponins for the diagnosis of chest pain—something typically done only in hospital emergency departments.[5]

The scope of services provided by urgent care centers can vary considerably. For example, Inland Empire Health Plan in Southern California uses explicit criteria to classify centers into two categories, based on the services they provide. Some can perform a wide variety of procedures, including laceration repair, fracture care, and response to cardiac events, while others function more like after-hours primary care services.

Occupational Medicine and Workers' Compensation

One essential component of the services offered by many urgent care centers is occupational health, which has two main aspects: employer-paid services

and workers' compensation. Employer-paid services include employment-related physicals, drug screening tests, workplace evaluations, and other related services. These services may be done under contractual arrangements with local employers. Many of the services, such as drug screening tests, can be carried out by a medical assistant without a physician's involvement, generating income with low resource use.

Workers' compensation is designed to pay for employees' healthcare needs associated with on-the-job injuries. The nature of sudden, employment-related injuries means that appointments cannot be scheduled in advance, as would be necessary in many primary care offices, which makes urgent care centers a particularly attractive venue for workers' compensation cases, especially when compared with the only other option for unscheduled care—the emergency department.[6]

"Workers' compensation cases typically result in multiple visits per injury, with a single billing process."

From the urgent care center's side, workers' compensation cases are appealing because they typically result in multiple visits per injury, with a single billing process. This is a departure from the majority of their cases—patients who are seen once for each clinical episode, with a separate billing process each time.

Both employer-paid services and workers' compensation cases complement the acute health side of the services provided in urgent care centers, generating business midday, a time that is often slow for many centers.

Point-of-Care Dispensing

Approximately one-third of respondents to the Urgent Care Association of America's benchmarking survey reported providing prepackaged pharmacy services onsite, also known as point-of-care dispensing.[7] Medications come in pre-filled, tamper-proof packages, and the contents are never handled by the urgent care center staff.

There are two main motivations for offering these services in an urgent care center. First, the profit per medication dispensed can be considerable for some centers. However, it is not clear how significant a revenue stream point-of-care dispensing represents for the industry.

The second draw is the benefit to the patient of one-stop shopping. The ability to remove an inconvenience—having to go to the pharmacy to fill a prescription when a patient is sick—is in keeping with the increased customer services focus at the heart of many urgent care centers.

Marketing Urgent Care Services to the Consumer

Marketing is crucial to the success of both new and established urgent care centers. Primary care providers benefit from the established relationships patients have with them, and emergency departments carry both the name recognition and the large physical presence of their hospitals.[8] Urgent care centers benefit from neither of these, and the picture is complicated by the lack of clarity in the industry—and therefore among potential patients—about what exactly an urgent care center is and what it does.

The Advisory Board Company, which provides research services to hospitals, highlights the fact that hospital-based urgent care centers use newsprint and direct mail advertising to consumers.

These advertisements often feature an educational focus that may include introducing patients to the option of "self-triaging" as a way to help them understand what types of conditions can be treated at the urgent care center, with the hope that they will make clinically appropriate decisions about whether to seek urgent care or go to the emergency department.

In addition, the company notes that some hospital-based urgent care centers market their services directly to physicians, with messages stressing the noncompeting, complementary nature of their services.[8]

Good signage is critical to the success of independent and chain-owned urgent care centers. It can help ensure that the center can be easily found and that drivers who are passing by will remember the center when they need care at a later time. In at least two states (Illinois and New Jersey), however, centers are prohibited from using the word "urgent" in their name and marketing materials because of concerns about public confusion with emergency deparments.[2]

Patient Satisfaction and Experiences with Care

A strong focus on customer service is a hallmark of the urgent care industry.

Press Ganey, an independent vendor of patient satisfaction surveys, has a survey tool designed specifically for use in urgent care centers.[9] One analysis of its 2002 data on more than 64,000 patients in 107 urgent care centers showed that the overall satisfaction rating was fairly high, with an average score of 83 on a 100-point scale.[10]

This same study, however, showed that only 59% of patients indicated that their likelihood of recommending the center to others was "very good." Recommendation scores could be improved by keeping patients well informed about delays when they are waiting to be seen. This may be crucial for enhancing patient satisfaction, as scores showed a substantial decline in satisfaction as wait times rose.

An online survey conducted by the National Headache Foundation found that many headache sufferers might benefit from treatment at an urgent care center. Patients were asked about the treatment they received for their headaches in emergency departments and urgent care centers. Urgent care center patients were more likely to report waiting less than one hour to see the doctor, having a medical provider who was polite and respectful, having a diagnosis clearly explained to them, having received effective treatment, and having been provided with clear instructions about what to do if the headache returned.[11]

Finally, one market research survey conducted by Scott & Company asked consumers about their preferences for having a sore throat treated when their regular doctor was not immediately available. The respondents' first choice was to seek treatment in an urgent care center, while their second choice was to wait for their regular doctor. Their third choice was to seek care in the emergency department.[12]

Urgent Care Medicine as a Professional Field

As a newer area of clinical practice, urgent care medicine has only recently begun to move toward defining itself as a professional field.

The American Medical Association now has a code allowing physicians to self-designate their specialty as "urgent care medicine."

The field also has a new fellowship offering postgraduate training in urgent care medicine through the Department of Family Medicine at Case Western Reserve University and University Hospitals Medical Practices in Cleveland, OH.

This program, developed in collaboration with the Urgent Care Association of America, started in 2006. It follows a curriculum designed around a set of defined core competencies and is modeled after the Accreditation Council for Graduate Medical Education's training model.

A second program using the same curriculum will begin at Physicians Immediate Care in Rockford, IL, in collaboration with the Department of Family Medicine at the University of Illinois, Rockford, and the Urgent Care Association of America.[13]

Accreditation and Licensing of Urgent Care Centers

Accreditation of urgent care centers by a recognized body may be key to insurers' willingness to pay a facility fee in addition to professional fees for physicians' services. Before accreditation criteria can be uniquely tailored to the needs of urgent care centers, however, there needs to be a clearly accepted definition of what an urgent care center is.

Arizona is the only state to license and regulate urgent care centers. The licensing requirements there have been described as having unclear standards and a considerable paperwork burden, raising concerns within the urgent care community.[14] ■

The full report is available on the California HealthCare Foundations website at www.chcf.org/topics/view.cfm ?itemid=133465.

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CODING Q&A

Addressing Problem-based Coding and Other Challenges

DAVID STERN, MD, CPC

Q. We are a fairly new urgent care center and could use some help on E/M coding. I have read on various urgent care websites that we can bill each visit as a new patient visit (as long as it isn't a follow-up to an existing problem). Can you please give me some direction on where I can find this information?

A. What you are referring to is "problem-based coding." Never code in this way unless you have clearly communicated with the payor about this method. Problem-based coding is one way for urgent care centers to receive appropriate compensation for the additional expenses incurred in providing urgent care services. You can access an article on this subject at: *http://www.ucaoa.org/info/resources.html* (click on "problem-based coding").

Q. We are starting an urgent care clinic. Should we bill using place-of-service (POS) -11 (office) or POS-20 (urgent care facility)?

A. In this situation, CMS defines an *office* as "[a] location, other than a hospital, skilled nursing facility (SNF), military treatment facility, community health center, state or local public health clinic, or intermediate care facility (ICF), where the health professional routinely provides health examinations, diagnosis, and treatment of illness or injury on an ambulatory basis."

An *urgent care facility* is defined as "[a] location, distinct from a hospital emergency room, an office, or a clinic, whose purpose is to diagnose and treat illness or injury for unscheduled, ambulatory patients seeking immediate medical attention."

David Stern is a partner in Physicians Immediate Care, with nine urgent care centers in Illinois and Oklahoma, and chief executive officer of Practice Velocity (www.practicevelocity.com), a provider of charting, coding and billing software for urgent care. He may be contacted at *dstern@practicevelocity.com*.

Of course, if you are operating a facility that would meet the UCAOA definition of an urgent care center, then POS-20 would be the most accurate code to use.

In coding, there is a general rule to use the most accurate code to describe the services rendered. In the case of place-of-service codes, another common rule comes into play. This rule is what I sometimes jokingly refer to as the "make-sure-that-you-give-the-payors-what-they-want" rule. Some payors will refuse to pay on the POS-20 code. Others may have their computers set up to only accept POS-20 from your center.

In some cases, payors will accept either code. Some payors may use POS-20 to trigger a rule to allow problem-based coding. Others never allow problem-based coding. For Medicare, each fiscal intermediary is different—some require POS-20 and others want you to use POS-11. You must determine the preference of your fiscal intermediary, or your claims will be denied. Some payors cannot tell you which code you should use, but they will deny any claims submitted from your center with POS-11.

This has been a source of 100% denials for at least one urgent care center in dealing with one particular payor. The payor was unable to tell the urgent care center what the reason was for the denials. After six months of having every single claim denied, the urgent care center tried using POS-20; and, *voila*, suddenly rejections ceased and their claims were processed and paid.

So, you can see some payors may not even be aware of their own software rules for place-of-service codes for your urgent care center.

Q. We saw a patient for bronchopneumonia and the physician removed an ear wax impaction on the same visit. We coded a 99213 (level 3 E/M code), 69210 (removal impacted cerumen), and 71020 (two-view chest radiograph). Payment for the E/M code was denied. Why?

A. Code 69210 should have been attached to the diagnosis for impacted cerumen (380.4) and the chest radi-

ograph code should have been attached to the code for bronchopneumonia (485).

The E/M should have been attached to the ICD-9 code for bronchopneumonia (485), with or without the code for impacted cerumen (380.4). The E/M code should have been modified with modifier -25.

Generally, this coding should result in payment, because these codes do not have work components that overlap. Assuming that you coded as noted, however, your payor may have expected modifier -59 on some of the services to indicate that these services were distinct procedural services.

As always, the coding consultant caveat applies, "Check with the payor to understand the payor requirements."

Q. Patients sometimes mistakenly use our urgent care center for visits that are true emergencies, such as myocardial infarctions. In those cases, we are equipped to provide oxygen therapy to the patients. What is the code for administering oxygen in our urgent care center?

A. In the hospital setting, reimbursement for these types of expenses is included in reimbursement for the facility code. All codes for physician services in the office setting, however, include a component to include practice expenses. That is generally why facility codes are not billed in addition to other codes for services rendered in an urgent care center.

Among other items generally included as bundled into practice expenses are syringes, dressings, drapes, and surgical trays and syringes. Many payors are coming to recognize that true urgent care centers do incur expenses that are above and beyond the practice expenses incurred in simple physician office setting. Thus, many payors are reimbursing for these additional expenses by reimbursing physicians for the code S9088 (services rendered in an urgent care center).

Q. Our urgent care center saw a patient with a 2 cm laceration caused by contact with a grinder in a factory. The wound was grossly contaminated with grease and metal filings, so the physician removed the metal filings and performed extensive scrubbing and irrigation of the wound, and sutured the wound with a single-layer closure.

We submitted a claim coded with 12001 (simple repair of superficial wounds of scalp...and/or extremities...2.5 cm or less). Four days later, the doctor rechecked the wound and found it to be infected. The wound was reopened, irrigated clear of pus, and dressed. The patient returned daily for wound checks, packing, and redressing for three days.

Medicare denied payment for all rechecks. What can we do to get paid for these recheck visits?

"Check with the payor to understand the payor's requirements."

A. This wound repair code has a 10-day global period. Medicare defines the global period as covering all related services during the global period, with the exception of complications that require a visit to the operating room.

Under CPT rules as published by the AMA, however, "Postoperative complications, exacerbations, and recurrences are not included in the surgical package and should be reported separately. Postoperative complications include conditions such as wound dehiscence, infection, and bleeding." Thus, it is legitimate to bill payors for such complications.

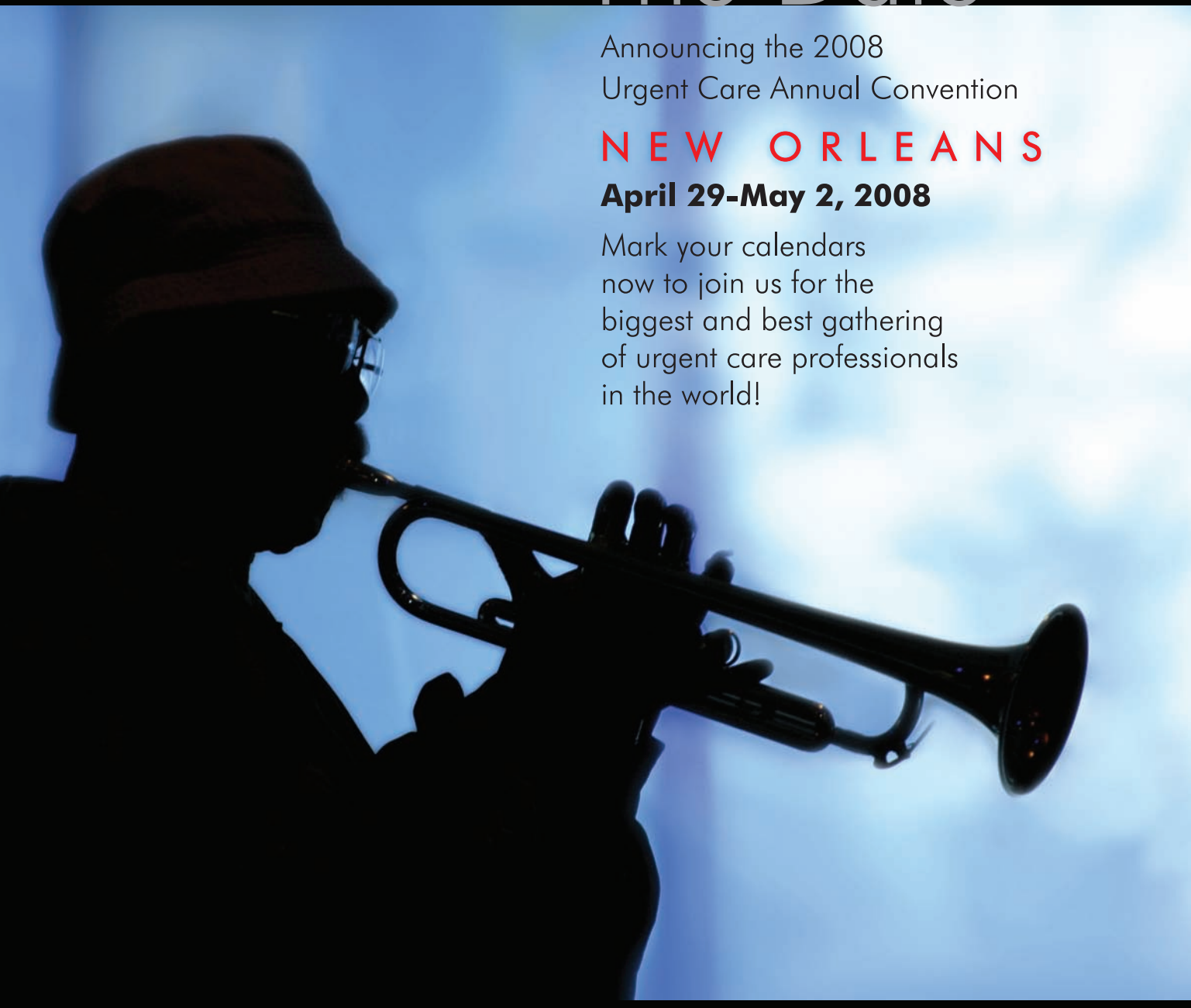
Of course, some payors may choose to follow CMS guidelines in this situation and may refuse to reimburse you for services rendered to treat the complication. Make sure that you add a diagnosis code to indicate the specific complication when you are billing for services rendered to treat the complication.

One caveat applies to this specific situation: Because the initial closure of the wound involved extensive cleaning and removal of particulate matter, the wound closure should be coded as 12031 ("Layer closure of wounds of scalp...and/or extremities...2.5 cm or less").

Yes, even though the wound was not a "layer closure" and was closed with a single layer of sutures, AMA defines the "intermediate" wound closure codes to include, *"single layer closure...if the wound is heavily contaminated and requires extensive cleaning or removal of particulate matter."*

Now, aren't you glad that you read to the end of the column? That one point could pay for your annual subscription to *JUCM*. (OK, I know it is free, but even if they charged $500, this point would pay for itself.) ■

Save The Date



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Urgent Care
ANNUAL CONVENTION

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When Urgent Care is the Safest Place to Turn

JOHN SHUFELDT, MD, JD, MBA, FACEP

Note: While not a typical topic for a Health Law column, providing treatment to the victims of violence against women by definition sits at the intersection of crime and medicine. Hence, we present Dr. Shufeldt's call to action in his usual space.

In retrospect, it was bound to happen: An estranged husband received information from his insurance company about his wife's outpatient treatment. He called the patient accounting office to confirm the residential address his wife gave to the registration clerk.

He thanked the woman who supplied him with the information profusely, then got in his car and drove to the domestic violence shelter where his wife was recovering from the physical and emotional wounds he inflicted on her the week before.

He hunted her down and shot her four times in the face with his .357 magnum while she cowered in the corner.

An estimated 4.5 million physical assaults are committed against women by their intimate partners in the United States every year.[1] Unfortunately, slightly more than half of the victims live in households with children under the age of 12[2]; too often, those children witness and are forever scarred by these circumstances. Each year, more than 13,000 of these assaults are committed at the woman's place of work, and an average of three women are murdered every day by their husbands or boyfriends.[1,3]

Intimate partner violence (IPV) has replaced the older phraseology of domestic violence, wife battering, and spousal abuse. This change in terminology reflects that abuse can occur in all types of relationships—dating or marriage, current or former, heterosexual or homosexual. A variety of different forms of abuse exist: verbal abuse, emotional abuse, isolation, use of the "male privilege," economic abuse, sexual abuse, using children to manipulate behavior, physical abuse, and threats of physical abuse.

John Shufeldt is the founder of the Shufeldt Law Firm, as well as the chief executive officer of NextCare, Inc., and sits on the Editorial Board of *JUCM*. He may be contacted at *JJS@shufeldtlaw.com*.

Victims of IPV are often very reluctant to disclose the actual nature of the abuse for a number of well-founded fears: they will lose their children, the perpetrator will seek retribution or deny the charge, embarrassment, lack of trust in the healthcare provider, or, finally, they may simply not be ready or able to leave the relationship for emotional or economic reasons.

As a result, a woman may not want to go to the emergency department since the staff may be attuned to the pattern of injury. Instead, she may present to an urgent care center with a complaint of falling or tripping down the stairs.

The most common sites of such injury are the head, neck, face, arms, and areas covered by clothing like the chest, breast, and abdomen. Stroke symptoms secondary to carotid artery dissection after choking are not uncommon.

When my gut tells me something is not adding up, I say to the patient, "I don't know if this is an issue for you, but a lot of people I treat are in an abusive or controlling relationship and may be uncomfortable bringing it up so I have started to ask everyone I treat."

Role of the Urgent Care Provider

When confronted with a patient who is the victim of IPV, our role as urgent care providers is to:

- respond empathetically by validating her experience
- assess the immediate risk to the victim
- thoroughly document current and past events
- refer the victim to experts in IPV.

Most states require healthcare providers to report known or suspected case of IPV to the police. In some states, the criminal justice system's response to the victim may actually place the victim at greater risk. Therefore, victims of IPV must be apprised of the duty to report.

I suspect none of this information is news to you. I am also

Continued on page 44.

Emphasizing the Positive Gets Results in Occ Med Sales

FRANK H. LEONE, MBA, MPH

A successful occupational health sales professional should develop a mechanism to monitor his or her choice of words and commit to using the English language to the mutual advantage of both the provider and the sales prospects.

However, sales professionals often make poor word choices at critical moments.

Negative words abound in our daily vocabulary. Frequently used negative words include *bad*, *poor*, *problem*, *complication*, *unacceptable*, and *difficult*. When calling on an occupational medicine prospect, these words should be replaced with positive words such as *opportunity*, *success*, *improvement*, *progress*, etc.

Inappropriate words tend to fall into two categories: calling attention to a negative and exhibiting uncertainty. Both tendencies can be overcome by proactively focusing on positive, active words.

A common error is to assume the other party is already aware of a negative. For example, one might point out that "our parking problems have now been resolved," when the prospect had no idea there was ever a parking problem in the first place.

"Exhibiting uncertainty" may be exemplified by treading too lightly with overly passive statements, such as:

"Is it possible that...?"

"Perhaps...."

"Can we...?"

"Is it okay if...?"

"Do you think...?"

Instead, a firm, positive demeanor should reign. For example, "Is it possible for me to meet with your CFO to get a better handle on your real costs?" is better posed as "We find that meeting with a company's CFO provides us with an opportunity to better focus on your unique experience."

Several other basic rules will help keep interactions positive:

- **Respect your prospect.** There is a narrow line between criticizing a company and calling attention to its shortcomings in a graceful manner. Rather than "your injury rate exceeds the national norm," advise that "it appears there is a real opportunity to make a difference in your workers' comp expenses."

  Never *tell* a prospect that they should do something; rather, *suggest* that they do something. While you are at it, look for and tell the prospect what they are doing right. To quote Dale Carnegie, "Offer honest and sincere appreciation whenever possible."

  Finally, get to the point and respect a prospect's time. At the outset, confirm how much time the prospect has for you and stick to their preferred time frame.
- **Qualify your suggestions**. Qualify anything that is not a fact with phrases such as "in my opinion," or "from my perspective." You cover yourself should you be wrong, and offer an appreciated dose of humility.
- **Nothing is guaranteed.** Do not "guarantee" anything. You are better off telling the prospect "although we *cannot guarantee* that we will lower your lost work time, we believe our focus will provide your company with the greatest likelihood of making a difference."
- **Develop a standard opening.** You have only a few seconds to generate a good first impression. Those seconds should be carefully crafted and made into a routine. Be firm, confident, respectful, and to the point.
- **Develop a standard summary statement.** The most important thing someone says is invariably what they say as they are "walking out the door." The statement should reflect your competitive advantage and desire to work with your prospect's company.

Frank Leone is president and CEO of RYAN Associates and executive director of the National Association of Occupational Health Professionals. Mr. Leone is the author of numerous sales and marketing texts and periodicals, and has considerable experience training medical professionals on sales and marketing techniques. E-mail him at *fleone@naohp.com*.

sure that you are aware that intimate partner violence is much more prevalent than reported. Hopefully, you are thinking, "What can urgent care physicians do about this epidemic besides providing empathetic patient care?"

Since 1997, a group of urgent care centers has been providing free, no-questions-asked care to patients and children residing in shelters housing victims of IPV.

Why is this important?

The most dangerous time for victims of IPV is when they leave the relationship. Abusers will go to great lengths to hunt down their victims in an effort to control the situation or silence their accuser. Submitting a claim to the perpetrator's insurance plan makes tracking down the victim much easier.

These altruistic urgent care owners have set up a call-ahead service with the shelters, which allows the patients to bypass the lobby and walk right in through the back door for their care. The patients are registered in the exam room, no insurance claim is submitted. and no payment is demanded. The patient or her children are treated, the care is documented, and the patient leaves through the back door.

It is time for us to step up to the plate and positively impact the lives of countless victims and their children.

A Challenge

Here is what I would challenge you to do: Contact the IPV shelters in your area to facilitate a no-charge, no-questions-asked care policy for their residents. Believe me, you will not be overwhelmed with patients and the care and empathy you provide these unfortunate victims will help them get back on their feet.

If 5,000 urgent care centers treat just one victim of IPV per day, we will impact the lives of 1.8 million patients per year.

Many of these women and children fleeing from their homes deny themselves medical care for fear their partner will either find them or they will incur debts they are unable to repay.

As urgent care centers, let us come together to address this too-silent epidemic and remove one barrier from their path to independence and freedom from fear.

Use this opportunity to show your staff and your community that the service you provide to the temporarily disenfranchised is as important to you as your bottom line.

Please e-mail me at *jjs@shufeldtlaw.com* and I will do whatever I can to help you achieve this goal. Your efforts will also be acknowledged in future issues of *JUCM*. ■

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Out with the Negative, in with the Positive

Old phrasing: We hope to work with you.
New phrasing: We believe that we can make a real difference in your workplace health and safety.

Old phrasing: We specialize in addressing your health and safety problems.
New phrasing: We specialize in working with employers to enhance the health and safety of their workforce.

Old phrasing: You can reduce lost work time by developing a strong pre-placement screening program.
New phrasing: We find that companies like yours often reduce total lost work time by developing a strong pre-placement screening program.

Old phrasing: If you work with us, we will reduce your total workers' compensation costs by at least 10%.
New phrasing: We feel confident that we can reduce your total workers' compensation costs by 10% or more.

Old phrasing: You should develop a drug-testing program.
New phrasing: In my opinion, you should develop a drug-testing program

Old phrasing: Is it possible to schedule an orientation meeting with your first-line supervisors next week?
New phrasing: We find that an orientation meeting with first-line supervisors is a critical first step in developing a productive relationship with our employer clients.

SHARE YOUR SUCCESSES

Have you instituted an effective occupational medicine program, or devised a particularly successful sales and marketing campaign? Let us know. Describe what you've done to strengthen your occupational medicine services, either clinically or from a practice management perspective, in an e-mail to *editor@jucm.com*. We'll share your success stories in an upcoming issue of *JUCM*.

Career Opportunities

Urgent Care Physician Opportunity in Lehigh Acres, Florida! Lehigh Regional Medical Center: 5-bed ED and 30,000 annual volume. Criteria: BC/BP EM, IM or FP. Benefits: 10-hour shifts, full-and part-time available and located in the beautiful Ft. Myers area. Contact Mary Langenstein at mary_langenstein@emcare.com.

SEATTLE, WASHINGTON – URGENT CARE Live the good life! As a MultiCare Urgent Care physician, you will benefit from a flexible, rotational, and "tailor-made" shift schedule with awesome work-life balance. Multi-specialty medical group seeks B/C FP, 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 Inpt/Outpt EMR, excellent comp/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 biking, hiking, climbing, skiing, and golfing. For more information call (800) 621-0301 or email your CV to MultiCare Health System Provider Services at blazenewtrails@multicare.org or fax to 866-264-2818. Website: www.multi care.org. Refer to opportunity #513-623. "MultiCareHealth System is a drug-free workplace".

FLORIDA

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Email: rsandhu@tampabay.rr.com

HOUSTON METRO–The Woodlands. Urgent Care. As printed in the 5/07 issue of *Medical Economics*, Sadler Clinic is one of "America's best places to practice." Block scheduling and 3-day work week. New clinic with lab, CT, MRI, and full compliment of specialists. Partnership after 1-year. Contact Michelle Kraft at (800) 678-7858, x63705 or mkraft@cejkasearch.com; www.cejkasearch.com. ID#29070C14.

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WellStar Physicians Group is seeking full-time and part-time BC/BE Emergency Medicine or Family Practice Physicians to join Urgent Care facility in Smyrna. This office is located 15 miles northwest of downtown Atlanta.

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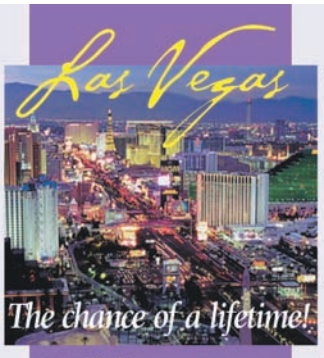

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Timothy Hendrix, MD at **(407) 200-2860**

Northern California

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- FT and PT opportunities are available.
- Clinic hours of operation

Mon.-Fri. 6 p.m. - 10 p.m.
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916-643-6677 fax
develops@sutterhealth.org
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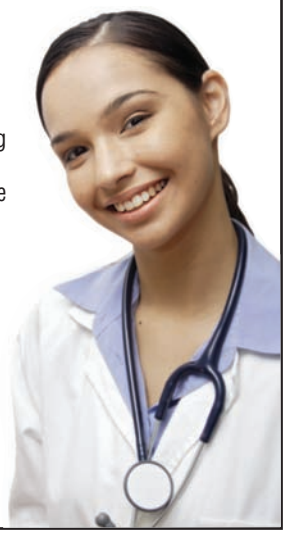
Our busy, established walk-in clinics in **Wausau** and **Weston** are adding an Urgent Care physician due to growth of their program.



North Central Wisconsin offers 4 seasons of recreation including all water sports, biking, hiking, golf, downhill and cross-country skiing. You'll enjoy all the amenities of a big city without the hassles. Excellent schools, shopping and fine dining right outside your back door.

For more information concerning this outstanding opportunity, contact **Karen Lindstrum** at:
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Accent Urgent Care & After Hours Pediatrics is privately owned and has been serving the Raleigh/Cary area of North Carolina since 1996. Our practice has established and maintains an excellent reputation in our community for both adult and pediatric medical care. A 2007 independent consumer survey ranked us as "the best privately owned urgent care in the Triangle". Full-time physicians typically work 10 hour shifts from 8am to 6pm. Weekend coverage is rotated through the physician pool.

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URGENT CARE OPPORTUNITIES ~ GRAND RAPIDS, MICHIGAN

Spectrum Health, one of the nation's top integrated healthcare systems and the largest tertiary referral center in West Michigan, is looking for a **Medical Director** and full/part-time staff physicians of its Urgent Care Network located in the Grand Rapids metropolitan area. This position is responsible for assessing and improving all aspects of patient care, implementing medical staff policies, and ensuring the delivery of safe, cost effective, high-quality, and efficient care in the Urgent Care setting.

This full-time **Medical Director** position, directly employed by **Spectrum Healt**h, is a mix of administrative and clinical duties. Each year, the current five locations provide care for more than 130,000 patients and are open from 8:00am until 10:00pm, 7 days per week. Qualifications for all positions include Board-certification or Board-eligibility in either Emergency Medicine, Family Practice, or Urgent Care. Competitive salary/benefits package, including relocation allowance.

Grand Rapids is a prosperous and rapidly-growing city, (metropolitan population of 750,000), 45 minutes from Lake Michigan, and is known as the cultural, educational, and economic hub of West Michigan.

For further information, contact: Wendy Jones,
Spectrum Health Physician Recruitment,
Phone: (800) 788-8410; Fax: (616) 774-7471 or email: wendy.jones@spectrum-health.org

Spectrum Health

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WISCONSIN

Marshfield Clinic is directed by 700+ physicians practicing in over 80 specialties at 40 locations in central, northern and western Wisconsin. We are seeking BC/BP Family Practice physicians at the following locations:

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- **Rice Lake - Emergency Dept./Urgent Care**
- **Ladysmith – Emergency Dept./Urgent Care**
- **Marshfield - Urgent Care**
- **Minocqua - Urgent Care**
- **Wausau - Urgent Care**
- **Eau Claire - Urgent Care**

We offer a competitive salary and a comprehensive benefit package including: malpractice, health, life, disability, and dental insurance; generous employer contributed retirement and 401K plans; $5,800 education allowance with 10 days of CME time; four weeks vacation 1st year; up to $10,000 relocation allowance; and much more.

Please contact: Sandy Heeg,
Physician Recruitment, Marshfield Clinic
1000 N Oak Ave., Marshfield, WI 54449
Phone: 800-782-8581, ext. 19781
Fax: (715) 221-9779
E-mail: heeg.sandra@marshfieldclinic.org
Website: www.marshfieldclinic.org/recruit

Marshfield Clinic is an Affirmative Action/Equal Opportunity employer that values diversity. Minorities, females, individuals with disabilities and veterans are encouraged to apply. Sorry, not a health professional shortage area.

Eastside Medical **URGENT CARE, LLC**

Full-Time Physician needed for a progressive Urgent Care Facility located in the beautiful Finger Lakes area of upstate New York. We are a solid, established practice, moving into our brand new state-of-the-art facility in early winter. Board-certification in Emergency, Med/Peds, or Family Medicine required – Urgent Care experience desirable. Must be a team player and enjoy working in a fast paced environment. Attractive salary and benefit package including 401(k) and profit sharing.

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Services

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.

Practices for Sale

FOR SALE- Orlando, Florida. Urgent Care/Family Practice conveniently located near Disney, Sea World, and Universal Studios. Well-established in prime international and domestic tourist corridor. Tremendous growth potential and consistent high income. Contact Dr. Daryanani at 407-465-1110 or email Ldaryanani@aol.com.

FOR SALE- Colorado. Occupational Medicine and Urgent Care practice. Ownership opportunity with a heightened quality of life. Single physician, extraordinary profitability, free standing mainstreet frontage, diverse and recurring patient base through 10 year reputation. Long term relationships with large local employers, capacity for growth, and a strong staff to provide ongoing support. 7,700 – sq. ft. beautifully renovated property available with practice. Contact Bob Forbes at 303-256-6768 or email bob@ForbesMA.com.

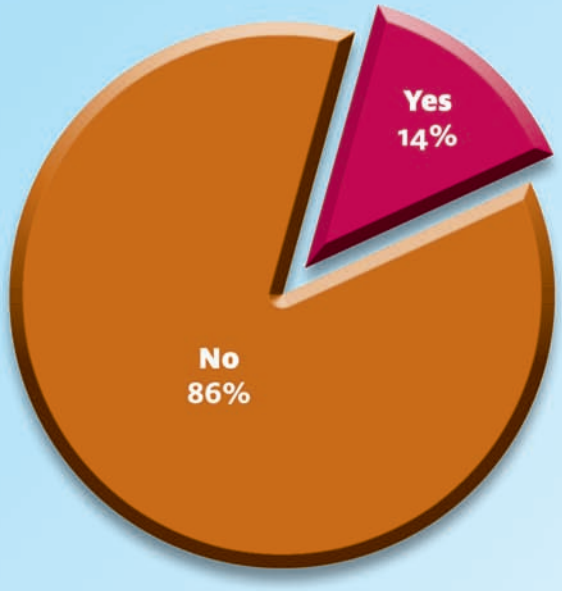
DEVELOPING DATA

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: The 2007 Professional Research Consultants National Consumer Survey asked patients (by virtue of a suggestion from UCAOA), "Did you consider using an urgent care center prior to going to this particular hospital emergency room?"

DID YOU CONSIDER GOING TO AN URGENT CARE CENTER BEFORE YOU WENT TO THE EMERGENCY ROOM?



	Yes	No
Region		
Midwest	15%	85%
Northeast	10%	90%
South	14%	86%
West	16%	84%
Age group		
18-34	14%	86%
35-44	18%	82%
45-54	12%	88%
55-64	17%	83%
65+	9%	91%
Household income		
<$25,000	15%	85%
$25,000-$49,999	12%	88%
$50,000-$74,999	19%	81%
$75,000-$99,999	14%	86%
≥$100,000	12%	88%

There was no statistical difference between how men and women answered the question (14% of each answering "yes"). Slightly more variation was seen among respondents from different parts of the country, and of different age groups and income levels:

These results offer insight into the mindset of patients at the moment of decision making. The lesson: urgent care clinics need to take steps to increase awareness among the general population.

If you've had success in establishing high visibility in the community, tell us how in an e-mail to *editor@jucm.com*. We'll share your techniques with our readers.

Areas covered in the UCAOA industry surveys included urgent care structures and organization, services offered, management of facilities and operations, patients and staffing, and financial data. UCAOA members who have ideas for future surveys should e-mail J. Dale Key, UCAOA Survey Committee chair, at dkey@medachealth.com.

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