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**AMERICAN HEALTH
 CONSULTANTS**

IN THIS ISSUE

- **Substance abuse:** Clinical steps to take if you suspect a problem. 4
- **Myocardial infarction:** Learn how the latest research on angioplasty will impact your ED. 5
- **Triage:** Improve the way you screen for prescription drug overdoses and interactions. . . . 7
- **Herbal and Dietary Supplements Patient Information** 8
- **Anthrax or flu?** Study gives you new evidence-based criteria to use 9
- **Cost-Saving Tip:** Computerized database saves an Illinois ED \$12,000 a year 9
- **Tip of the Month:** Foolproof way to keep track of dosage charts and measuring tapes . . 10
- **Journal Reviews:** Patients who leave without being seen; ED analgesics for fracture pain. . . 11

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Do you screen patients for substance abuse? Too many slip through the cracks

Study: Nurses often omit this intervention; 33% of patients need treatment

ED nurses at Yale-New Haven (CT) Medical Center suspected that a 61-year-old man complaining of dizziness, with a history of high blood pressure and noncompliance with medications, was unable to pay for his prescriptions.

However, the patient’s cardiologist was contacted and explained that the man was regularly given medication samples, but he still was not taking them. At that point, the patient was screened for substance abuse, and the real problem was discovered.

“It turns out that he is a big-time drinker and forgets to take his medications. No one had asked him about this previously,” says **Gail D’Onofrio, MD, MS**, associate professor for the section of emergency medicine at Yale University School of Medicine, also in New Haven. In addition, alcohol was a possible cause of the man’s high blood pressure, she reports.

In another case, a well-groomed elderly man came to the ED because his wife insisted he was “not himself” since falling a few days earlier. To rule out a possible subdural hematoma, the patient was sent for a computed tomography scan, but the results were negative.

Finally, the man was asked about substance abuse, and he admitted drinking a bottle of wine each day, says D’Onofrio.

Recently, a 20-year-old college student came to the ED’s urgent care center

EXECUTIVE SUMMARY

According to a recent study, about one-third of ED patients need substance abuse treatment, but only 10% are receiving it.

- Screen all patients for substance abuse if possible.
- Patients at high risk for substance abuse include individuals ages 16-24, and patients with injuries, hypertension, gastrointestinal complaints, seizures, or changes in mental status.
- If you suspect substance abuse, give patients referral numbers for follow-up care and treatment.

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with a sore throat. During a routine screening for substance abuse, he admitted drinking four days a week, six to 12 beers at a time.

What do all these patients have in common? They all came to the ED with problems unrelated to substance abuse, says D'Onofrio. "Many patients are at-risk or harmful drinkers that no one would have otherwise picked up," she says. "That is why ideally, this is universal screening."

A recent study reported that nearly one-third of ED patients in seven Tennessee hospitals were identified as having a substance abuse problem, but less than 10% of these individuals were receiving treatment.¹

This is compelling evidence that many ED patients need substance abuse treatment and are not getting it, emphasizes **Ian Rockett**, PhD, MPH, professor and associate chair for the department of community medicine at West Virginia University in Morgantown

and the study's principal investigator.

As an ED nurse, you are in a unique position to make sure these patients get the help they need by identifying, intervening, and referring as appropriate, Rockett urges.

"The ED visit is a time when these individuals may be most receptive to efforts to address this problem," he adds.

In addition, routine screening can reduce follow-up ED visits by patients with substance abuse disorders, says Rockett. "These patients exacerbate the stresses experienced by staff in the typically busy ED," he explains.

To effectively screen ED patients for substance abuse, follow these steps:

- **Screen all patients if possible.**

At Yale — New Haven Medical Center's ED, the nursing flowsheet contains screening questions for alcohol use, which are part of the initial history taken by the triage or staff nurse, says D'Onofrio. **(For more information on this topic, see "Do you screen patients for alcohol abuse?" *ED Nursing*, June 2002, p. 104. For information on when to obtain blood alcohol levels and urine toxicology screens, see related story on p. 4.)**

"In an ideal world, we would try to complete this on everyone," she says.

For a basic, routine screening, use the following questions from the Bethesda, MD-based National Institute on Alcohol Abuse and Alcoholism, recommends D'Onofrio:

— Do you drink beer, wine, or distilled spirits? (If yes, go on.)

— On average, how many days per week do you drink alcohol?

— On a typical day when you drink, how many drinks do you have? (The low-risk amounts are less than seven weekly drinks for women or under 14 weekly drinks for men.)

— What's the maximum number of drinks you had on a given occasion in the last month? (The low-risk amount is a daily maximum of three drinks for women or four for men.)

"If the patient is over the low-risk amounts or one already knows that there is a problem, we then go to the CAGE questions," says D'Onofrio.

The CAGE four-item alcohol screening questions are mnemonics of words: Cut Down, Annoyed, Guilty, and Eye-Opener. The questions are as follows:

— Have you ever thought you should cut down on your drinking?

— Have you ever felt annoyed by others' criticism of your drinking?

— Have you ever felt guilty about your drinking?

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Editorial Questions

For questions or comments, call
Joy Daughtery Dickinson
at (229) 551-9195.

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Editor: **Staci Kusterbeck**.
Vice President/Group Publisher: **Brenda Mooney**.
Senior Managing Editor: **Joy Daughtery Dickinson**,
(joy.dickinson@thomson.com).

Production Editor: **Nancy McCreary**.

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SOURCES AND RESOURCES

For more information about substance abuse screening in the ED, contact:

- **Gail D’Onofrio**, MD, MS, Associate Professor, Section of Emergency Medicine, Yale University School of Medicine, 333 Cedar St., New Haven, CT 16510. Telephone: (203) 785-4363. E-mail: gail.donofrio@yale.edu.
- **Ian Rockett**, PhD, MPH, Professor and Associate Chair, Director of Educational Programs, Department of Community Medicine, West Virginia University, P.O. Box 9190, Morgantown, WV 26506-9190. Telephone: (304) 293-5325. Fax: (304) 293-6685. E-mail: irockett@hsc.wvu.edu.
- **Linda Whitt**, RN, BSN, CEN, Staff Nurse, Emergency Department, Bon Secours DePaul Medical Center, 150 Kingsley Lane, Norfolk, VA 23505. Telephone: (757) 889-5112. E-mail: lindawhitt@aol.com.

An article summarizing recommendations of a 2001 conference on ED screening and intervention programs titled “Emergency Department Services for Patients with Alcohol Problems: Research Directions” can be downloaded for free from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) web site (www.niaaa.nih.gov). Click on “Publications,” “Reports/Manuals/Guides/Briefs” and “Alcohol Problems Among Emergency Department Patients — 2001.” Also, a book containing the conference presentations and list of recommendations can be obtained free by e-mailing Dan Hungerford, DrPH, at Dhungerford@cdc.gov. Also available free is “Helping Patients with Alcohol Problems: A Health Practitioner’s Guide,” which includes “A Pocket Guide: Alcohol Screening and Brief Intervention.” (Click on “Reports/Manuals/Guides/Briefs.”)

— Do you have a morning eye opener?²

Although it is often difficult to find time to screen patients for substance abuse, you should ask every patient about smoking, drinking, and drug use, says **Linda Whitt**, RN, BSN, CEN, an ED nurse at Bon Secours DePaul Medical Center in Norfolk, VA.

“This is very important on many levels, because it helps to draw a complete picture,” she says. “If the patient reports alcohol or drug use, it possibly prevents me from adding narcotics to their recipe.”

“When I ask patients if they consider themselves

alcoholics, I am often surprised at the ‘yes’ answers,” Whitt says.

Sometimes, patients volunteer that they are recovering addicts and don’t want narcotics administered, says Whitt. “This helps me plan their care and not sabotage their progress,” she says.

Avoid giving aspirin or nonsteroidal anti-inflammatory drugs to alcoholic patients with gastrointestinal problems related to alcohol, since these patients are prone to coagulopathies and gastrointestinal bleeds, she advises. In addition, avoid acetaminophen products in patients with cirrhosis or liver disease, adds Whitt.

- **Always screen high-risk patients.**

Although, ideally, all patients are screened, you should always screen individuals at high risk for substance abuse, says D’Onofrio. “This would include anyone presenting with an injury, hypertension, gastrointestinal complaints, seizures, change in mental status, and 16- to 24-year-olds, who have the highest prevalence of drinking,” she says.

- **Use creative methods to screen.**

“All kinds of creative strategies can be used to screen patients for substance abuse in the ED,” says D’Onofrio. These include having patients fill out health questionnaires in the waiting room and computer-assisted entry, she notes.

- **Use outside sources when possible.**

Project ASSERT is a low-cost and innovative model for substance abuse screening that is used at several EDs in New Haven, CT, and Boston, notes Rockett. “In recognition that ED physicians and nurses already are at or beyond capacity, this model deploys social workers and other community outreach workers to conduct substance abuse screening and referral,” he says.

If your ED doesn’t have these resources, it’s still important to develop a good working relationship with substance abuse treatment facilities in the area, Rockett advises.

- **Don’t assume screening takes too much time.**

Although many ED nurses are reluctant to screen because they already are too busy, this is a mistake, says D’Onofrio. “We ask every patient with an injury about tetanus, but we hardly ever see a real case of tetanus,” she notes.

The screen takes only a few seconds for 40% of adult patients because they do not drink alcohol and answer “no” to the first question, explains D’Onofrio. “It takes about 10 seconds for the moderate drinkers who are under the low-risk limits, and it takes a total of about 30 seconds to go through the whole thing, including the CAGE questions,” she says.

If a substance abuse problem is identified, have a quick, easy intervention to offer, says D’Onofrio. Nurses often feel ‘I do not have time to deal with the

answers,' she says.

At Yale-New Haven's ED, if a patient tests positive for a substance abuse problem, nurses give out printed material along with a referral to primary care provider, says D'Onofrio. (See resource box, p. 3, to obtain materials.)

"Or if the problem is more severe, you could provide a list of referrals in the community," she advises. "Every city has Alcoholics Anonymous."

References

1. Rockett IRH, Putnam SL, Jia H, et al. Assessing substance abuse treatment need: A statewide hospital emergency department study. *Ann Emerg Med* 2003; 41:802-813.
2. Ewing, JA. Detecting alcoholism: The CAGE questionnaire. *JAMA* 1984; 252:1,905-1,907. ■

When should you obtain alcohol levels, tox screens?

If you suspect a patient has a substance abuse problem, what do you do next? A first step may be to obtain blood alcohol levels or toxicology screens, says **Darlene Matsuoka**, RN, BSN, CEN, CCRN, clinical nurse educator for the ED at Seattle-based Harborview Medical Center.

As an ED nurse, you always should consider drug and alcohol abuse as part of the patient picture, advises Matsuoka. "Its presence can dictate treatment, require further observation time, and warrants a 'red flag' for follow-up," she says.

Consider obtaining an alcohol and toxicology screen for the following patients:

- **Patients with a possible alcohol and/or drug problem.**

In addition to routinely asking about a patient's drug history, look for signs such as slurred speech, unsteady gait, and appearance of pupil size, advises **Stephen Brown**, RN, BSN, MHN, CEN, an ED nurse at University of California-Irvine Medical Center.

You must determine if drugs or alcohol are contributing to the patient's reason for being in the ED, says Brown. "For example, if the patient has abscesses due to injection of street drugs, a plan can be made to address this issue," he says.

Some patients may deny having a problem, yet give responses such as "I only drink five beers a day," or "I just use cocaine once a week," notes Brown. In this case, you should provide information on follow-up care or a referral for outpatient treatment services, he says.

If you suspect drug or alcohol abuse, but the patient

EXECUTIVE SUMMARY

Obtain blood alcohol levels and urine toxicology screens if you suspect a patient has a substance abuse problem.

- Drugs or alcohol may be contributing to the patient's reason for being in the ED.
- If you confirm that ingested substances are the cause of a patient's altered mental status, unnecessary diagnostic tests can be avoided.
- Consider obtaining toxicology screens and alcohol levels for trauma patients, obtunded patients, and patients with altered mental status.

denies it, obtaining blood or urine specimens can confirm the presence of certain drugs or the alcohol level in the blood, explains Matsuoka.

New ED nurses may question why it's necessary to obtain alcohol levels and toxicology screens, especially if the patient does not seem impaired, says Matsuoka. "They may see it as a punitive measure, somehow linked to the police or the employer getting a hold of the information," she says.

At Harborview Medical Center, none of the results or medical information is released unless the patient consents, in accordance with requirements of the Health Insurance Portability and Accountability Act (HIPAA), stresses Matsuoka.

Since alcohol levels are part of the medical exam and are not legal blood alcohol levels, the results would not be available to police, she explains. "Police can present at the bedside and request a blood alcohol level be drawn for forensics, but it would be done only with the patient's consent," she says. "In Washington state, if a patient refuses, his [driver's] license may be suspended."

Even if there were a fatality from a drunk-driving accident, a confirmation of drug or alcohol use would be done by the medical examiner, adds Matsuoka.

Matsuoka explains to staff that the tests are done to ascertain causes of changes in level of consciousness or behavior, or to identify a substance abuse problem for a patient in denial. "These patients can then be referred to our social workers or chemical dependency counselors for counseling and referral," she says.

- **Patients admitted to an inpatient psychiatric unit.**

ED patients being admitted to the facility's psychiatric unit always are screened for substance abuse, says Brown. "The only time this is not done is when a patient cannot urinate or the patient refuses to comply with our request for the sample," he says.

SOURCES

For more information on alcohol levels and toxicology screens, contact:

- **Stephen Brown**, RN, BSN, MHN, Emergency Department, University of California-Irvine Medical Center, P.O. Box 2463, Orange, CA 92859. Telephone: (714) 329-6699. E-mail: sjbrown@msx.ndc.mc.uci.edu.
- **Darlene Matsuoka**, RN, BSN, CEN, CCRN, Clinical Nurse Educator, Emergency Department, Harborview Medical Center, Mail Stop 359875, 325 Ninth Ave., Seattle, WA 98104. Telephone: (206) 731-2646. Fax: (206) 731-8671. E-mail: dmatsuok@u.washington.edu.

In this scenario, the fact that the patient refused is documented, or if the patient is unable to urinate, hydration is started. "If the patient still is unable and no medical emergency exists, the patient continues to be monitored," says Brown.

If a substance abuse problem is identified, nurses will be aware of potential withdrawal symptoms such as tremors, explains Brown.

"If the patient is on heroin for example, we can inform the doctors and methadone might be ordered," he says. "Or, if the patient has a history of alcohol abuse, we can anticipate the need for librium."

• **Obtunded patients.**

"Several of our patients come in obtunded, and it is important to have a thorough work-up to decide if the problem is inebriation, a subdural, or an overdose," says Matsuoka.

Many of these patients have conditions caused by chronic alcoholism, such as pancreatitis, hepatic encephalopathy, or alcohol withdrawal seizures, she adds.

• **Patients with altered mental status.**

Urine toxicology screens always are done for patients with altered level of consciousness and irrational or out-of-control behavior, says Matsuoka. "We see the gambit of ecstasy, GHB [gamma hydroxybutyrate], methamphetamines, cocaine, heroin, LSD, and marijuana in our ED," she reports.

"If a patient is acting in a bizarre manner and we confirm that drugs are on board, it can save an unnecessary computed tomography scan or other test," adds Brown.

• **Trauma patients.**

Research has documented 50% of all trauma admits had alcohol in their systems, notes Matsuoka.¹ In light of these statistics, trauma patients should have alcohol

levels drawn as part of their workup, she recommends.

• **Overdose or suicidal patients.**

If a patient has made an overdose attempt, a toxicology screen and an alcohol level should always be done, says Brown.

"A suicidal patient who comes to the ED and states that they took 100 Tylenol has a high possibility of a coingestion of other potentially lethal drugs and alcohol," he explains.

Reference

1. Gentilelo LM, Rivara, Donovan, et al. Alcohol interventions as a means of reducing risk of injury recurrence. *Ann Surg* 1999; 230:473-480. ■

Study: Change the way you care for acute MI patients

If primary angioplasty is not available at your facility, are acute myocardial infarction (AMI) patients transferred so that they can receive this lifesaving intervention?

According to a new study, AMI patients who were transferred in order to receive primary angioplasty had a 40% decrease in death and major complications, as compared with patients who were not transferred and received thrombolytics.¹

"The study concluded it was worth the extra time to get heart attack patients to hospitals that are able to perform primary angioplasty on an emergent basis, 24 hours a day, seven days a week," explains **Marli Bennewitz**, RN, BSN, chest pain center coordinator at St. Jude Medical Center in Fullerton, CA.

To improve care of AMI patients, consider the following items:

EXECUTIVE SUMMARY

Primary angioplasty decreased death and major complications for heart attack patients who were transferred in order to receive this intervention, as compared with patients who were not transferred and received thrombolytics.

- You must rush the patient to the cardiac catheterization lab or arrange for an immediate transfer.
- To facilitate care, remove the patient's socks and underwear and start at least two intravenous lines.
- Obtain a blood urea nitrogen/creatinine level in advance.

SOURCES

For more information, contact:

- **Marli Bennewitz**, RN, BSN, Chest Pain Center Coordinator, St. Jude Medical Center, 101 E. Valencia Mesa Drive, Fullerton, CA 92832. Telephone: (714) 992-3000, ext. 3463. Fax: (714) 992-3109. E-mail: mbennewi@sjf.stjoe.org.
- **Steven D. Glow**, RN, MSN, FNP, Nursing Faculty, Salish Kootenai College, P.O. Box 117, 52000 N. Hwy 93, Pablo, MT 59855. Telephone: (406) 275-4922. Fax: (406) 275-4806. E-mail: Steve_Glow@skc.edu.

• Understand how angiography and percutaneous coronary interventions (PCIs) work.

Coronary angiography assesses for narrowing or blockage of the coronary arteries, says **Steven D. Glow**, RN, MSN, FNP, nursing faculty at Salish Kootenai College in Pablo, MT. A sheath is inserted into the femoral or radial artery, and a catheter is threaded up the aorta into the coronary artery system, he explains.

Radiopaque dye is injected into each coronary artery, and real-time imaging allows visualization of coronary artery blood flow, says Glow. "Data gained from this procedure are used to determine if the patient needs PCI," he says.

If PCI is needed, catheters with interventional devices are inserted through the sheath placed for angiography, says Glow.

There are four types of PCIs:

— **Balloon angioplasty:** A balloon-tipped catheter is advanced to the location of coronary artery narrowing and is inflated, which compresses the plaque against the walls of the artery. The balloon is removed, and the lumen of the artery is reassessed.

— **Stenting:** A small, expandable metallic or drug-coated device may be used in addition to the balloon angioplasty to hold the lumen of the artery open. When the angioplasty balloon is inflated, the stent opens up and locks, and the wire mesh stent opens the coronary artery and remains there permanently, says Glow.

"The newest stents, just recently available in the U.S., are drug-eluting stents," she says. Medicated coatings are used to decrease the chance of reocclusion of the artery due to scarring at the stent site, Bennewitz explains.

— **Rotational atherectomy:** This procedure breaks up or carves out hard plaque narrowing a coronary artery. The pieces of plaque are suctioned out with the

catheter to avoid embolization.

— **Brachytherapy:** Radiation therapy at the site of a stent prevents or shrinks scar tissue.

All of these diagnostic and therapeutic procedures involve the use of radiopaque iodine dye, says Glow.

"Many people experience a warm or flush feeling when the dye is injected," he says. "The dye is eliminated by the kidneys, so clients with renal problems are at increased risk for complications."

• Know what to do if you don't have capabilities for primary angioplasty.

Unfortunately, not all U.S. hospitals have cardiac catheterization lab capabilities, notes Bennewitz.

If you do have a cath lab, you must expedite the patient's arrival for this lifesaving angioplasty procedure, she urges. Otherwise, know which hospital in your area you would transfer to and understand your transfer procedures, says Bennewitz.

• Know indications for this intervention.

There are no clearly defined contraindications to primary angioplasty, unlike with intravenous thrombolytics, says Bennewitz. "Rarely, you might have a patient with no access site or borderline renal failure who might not be the best candidates," she adds.

• Reduce door-to-balloon times.

"It is important for every ED nurse to remember the old saying we used when thrombolytics were first introduced: 'time is muscle,'" says Bennewitz.

To decrease the time from door-to-balloon at St. Jude Medical Center, a paramedic pre-hospital electrocardiogram (ECG) program was implemented in 1999, she reports. "The paramedic trucks are equipped with portable 12-lead ECG machines, which enables us to identify an AMI before the patient arrives," says Bennewitz. "We also have pre-printed consents to make informed consenting easier."

There is a team approach among the cardiologist, ED physicians and nurses, and cath lab staff, stresses Bennewitz. "Everyone is aware our goal is to get that AMI patient to the cath lab as soon as possible and in the best condition possible," she says.

• Reduce delays.

To cut delays once the patient arrives in the cath lab, remove the patient's underwear and socks beforehand, and make sure there are at least two intravenous lines started, recommends Bennewitz.

Also, make sure a blood urea nitrogen/creatinine level has been obtained and is available for review prior to the procedure, says Glow. Patients may be allergic to the iodine-based dyes used for this diagnostic test, so ask about known allergies to intravenous iodine, shellfish, and any allergic reactions after the client's previous diagnostic imaging studies, he advises.

"Depending on the severity of the previous reaction

and the need for the procedure, premedication with diphenhydramine or methylprednisilone may be ordered,” he says.

Reference

1. Andersen HR, Nielsen TT, Rasmussen K, et al. A comparison of coronary angioplasty with fibrinolytic therapy in acute myocardial infarction. *N Engl J Med* 2003; 349:733-742. ■

Symptom alert: Overdoses and drug interactions

After a young woman felt symptoms of an allergic reaction coming on, she went to the grocery store and bought a bottle of antihistamine, recalls **Shelley Cohen**, RN, CEN, a consultant and educator with Health Resources Unlimited in Hohenwald, TN.

“She drank the entire bottle in less than a day and presented as an acute anticholinergic toxicity,” says Cohen.

In a similar case, a teen-ager came to the ED complaining of abdominal pain, but told nurses that no injury had occurred.

“He finally admitted to buying two bottles of ‘that pink liquid stuff’ for upset stomachs and drank them over two days,” says Cohen. “He had so much aspirin in him he had a gastrointestinal bleed. That’s why his stomach hurt.”

When you triage patients, do you always consider the possibility of prescription or over-the-counter drug overdoses? “Keeping your antennae up for these suspicions is important, because many patients do not even realize they have overdosed,” says Cohen.

In addition, keep a high index of suspicion for symptoms caused by ingestion of herbal agents, urges **Stacey Westphal**, RN, clinical educator at Cape

EXECUTIVE SUMMARY

Have a high index of suspicion for symptoms caused by prescription or over-the-counter drug overdoses.

- Ask patients specifically about vitamins, minerals, herbs they are taking.
- Herbal agents can affect blood sugar levels and clotting times.
- When assessing vital signs, consider the side effects of drugs such as beta-blockers.

SOURCES

For more information on triage, contact:

- **Shelley Cohen**, RN, CEN, Health Resources Unlimited, 522 Seiber Ridge Road, Hohenwald, TN 38462. Telephone: (888) 654-3363 or (931) 722-7206. Fax: (931) 722-7495. E-mail: educate@hru.net. Web: www.hru.net.
- **Stacey Westphal**, RN, MS, CEN, Clinical Educator, Emergency Services, Cape Canaveral Hospital, 701 W. Cocoa Beach Causeway, Cocoa Beach, FL 32931. Telephone: (321) 868-7651. Fax: (321) 868-7249. E-mail: Stacey.Westphal@health-first.org.

Canaveral Hospital in Cocoa Beach, FL. “Patients tend to think herbs are safe because they are natural, but there is always a potential for drug interactions,” she says.

To improve assessment of patients, do the following:

• Consider risks for diabetics.

Diabetic patients taking warfarin may not realize that certain herbal agents affect blood sugar levels and clotting times, says Cohen. “For example, ginseng affects clotting times when taken in certain doses for patients on warfarin,” she says.

• Question patients about medication history.

Ask the following specific questions, recommends Cohen:

— What medications are you taking that your doctor prescribes?

— What vitamins, minerals, herbs, or other medicines do you take that you *don't* need a prescription from your doctor to get?

In addition to prescriptions, patients may self-medicate with over-the-counter products or order drugs from the Internet without a prescription, notes Cohen. She suggests the following:

— Keep an appropriate nursing drug reference handbook near the triage phone or at the triage desk.

— Be aware that many of the new medications have names similar to existing drugs, such as Celebrex, which is commonly prescribed for arthritis, and Cerebrex, which is given for seizures.

— Many drugs are prescribed for a variety of medical problems. “Don’t assume the patient is on a particular medicine for seizures when that same medication may also be prescribed for depression,” says Cohen.

For example, don’t assume that beta-blockers are being given to treat hypertension or cardiovascular disease, since they also work for migraines or depressive

Herbal and Dietary Supplements Patient Information

It has been estimated that one-third of adults in the United States use herbal products and spend more than \$3 billion annually on these supplements. As many as 70% of patients using complementary medicine (including herbal products) do not inform their physician or pharmacist. Because contents of natural products are not standardized, information needed to determine the occurrence of a drug interaction or adverse effect is not frequently available or is difficult to evaluate.

It is very likely that your health care providers are not aware of any herbal or dietary supplements you currently take. The potential for interactions between natural products and traditional medications also is very likely and often goes undetermined or unreported. In some cases, only limited information is available about the effects of such interactions. Even health care professionals are learning more and more about these herbal products and their effects on a daily basis.

We are attempting to document any herbal and/or dietary product(s) you currently use in order to detect, monitor, report, and prevent any complication from therapy.

The list below outlines some of the commonly used herbal and dietary supplements.

Please review this list and let your physician or nurse know if you are currently taking any (even multivitamins).

- | | | | | |
|--|---|---|---|---|
| <input type="checkbox"/> alfalfa | <input type="checkbox"/> cranberry | <input type="checkbox"/> ginkgo biloba | <input type="checkbox"/> ma huang | <input type="checkbox"/> thistle |
| <input type="checkbox"/> algae | <input type="checkbox"/> creatine | <input type="checkbox"/> ginger | <input type="checkbox"/> melatonin | <input type="checkbox"/> thyme |
| <input type="checkbox"/> aloe vera | <input type="checkbox"/> Cynara-SL | <input type="checkbox"/> ginseng | <input type="checkbox"/> milk thistle | <input type="checkbox"/> valerian root |
| <input type="checkbox"/> androstenedione | <input type="checkbox"/> dandelion root | <input type="checkbox"/> glucosamine | <input type="checkbox"/> multivitamin | <input type="checkbox"/> vitamin A |
| <input type="checkbox"/> bearberry | <input type="checkbox"/> DHEA | <input type="checkbox"/> goldenseal | <input type="checkbox"/> multivitamin with iron | <input type="checkbox"/> vitamin B |
| <input type="checkbox"/> beta carotene | <input type="checkbox"/> dong quai | <input type="checkbox"/> grapefruit juice | <input type="checkbox"/> plantain | (B ₁ , B ₃ , B ₆ , B ₁₂ , etc.) |
| <input type="checkbox"/> bitterroot | <input type="checkbox"/> echinacea | <input type="checkbox"/> guar gum | <input type="checkbox"/> pokeweed | <input type="checkbox"/> vitamin C |
| <input type="checkbox"/> black cohosh | <input type="checkbox"/> ephedra | <input type="checkbox"/> guarana | <input type="checkbox"/> psyllium seed | <input type="checkbox"/> vitamin D |
| <input type="checkbox"/> bromelains | <input type="checkbox"/> eucalyptus oil | <input type="checkbox"/> hawthorn | <input type="checkbox"/> rhubarb | <input type="checkbox"/> vitamin E |
| <input type="checkbox"/> chamomile | <input type="checkbox"/> evening | <input type="checkbox"/> holly | <input type="checkbox"/> St. John's wort | <input type="checkbox"/> willow bark |
| <input type="checkbox"/> chaparral | primrose oil | <input type="checkbox"/> hops | <input type="checkbox"/> SAM-E | <input type="checkbox"/> yohimbine |
| <input type="checkbox"/> chasteberry | <input type="checkbox"/> fennel | <input type="checkbox"/> horse chestnut | <input type="checkbox"/> sarsaparilla | |
| <input type="checkbox"/> chickweed | <input type="checkbox"/> feverfew | <input type="checkbox"/> iron supplement | <input type="checkbox"/> sassafras | |
| <input type="checkbox"/> chromium | <input type="checkbox"/> folic acid | <input type="checkbox"/> kelp | <input type="checkbox"/> saw palmetto | |
| picolinate | <input type="checkbox"/> flaxseed | <input type="checkbox"/> kava kava | <input type="checkbox"/> selenium | |
| <input type="checkbox"/> chondroitin | <input type="checkbox"/> garlic | <input type="checkbox"/> khat | <input type="checkbox"/> seneca (senna) | |
| <input type="checkbox"/> clove | <input type="checkbox"/> germander | <input type="checkbox"/> kudzu | <input type="checkbox"/> shark cartilage | |
| <input type="checkbox"/> CQ-10 | <input type="checkbox"/> germanium | <input type="checkbox"/> licorice | <input type="checkbox"/> soy | |

Others or specific dietary information: (please describe) _____

Please read the information above carefully and discuss with your nurse, physician, pharmacist, or dietician, if necessary.

Source: Cape Canaveral Hospital, Cocoa Beach, FL.

disorders. "Ask the patient what they are taking the medication for," says Cohen.

- **Routine medications can mask the signs of shock.**

Patients on beta-blockers will have a reduced heart rate, and this is an expected and normal effect, says Cohen. "Looking for tachycardia as an early sign of shock is not helpful in these patients," she says. "The tachycardia will not present as early or as obvious when the patient is on a beta-blocker."

You must be aware of other signs of shock or perfusion changes, such as delayed capillary refill, says Cohen.

If the patient has reduced kidney function, many

medications are not metabolized as quickly.

The clinical presentation of the patients will vary based on their ages and other existing medical conditions, but you should identify red flags that may indicate potential perfusion problems, advises Cohen. Red flags include change in mental status; delayed capillary refill; moist, diaphoretic skin; changes in skin color; dizziness or lightheadedness; and nausea with vomiting at times, she says.

"There may also be some vital sign changes, although this may be a late indication," says Cohen.

- **Be aware of the potential for drug interactions.**

At Cape Canaveral's ED, a man reported sudden loss of memory. Immediately, ED nurses suspected a possible stroke, intercranial bleeding, or other neurological diagnosis, says Westphal. "In addition, a toxicology screen was done, which had unusual findings," she reports.

At that point, the patient and his wife were asked about herbal medications, and he acknowledged he had been taking a mixture of Chinese herbal remedies. The man was admitted, and it was later determined that the herbal agents apparently were responsible for the memory loss, Westphal says.

If patients identify taking herbal medications, a herbal discharge instruction sheet is given, she adds. In addition, posters are hung throughout the ED on a different herbal drug every week, such as saw palmetto, St. John's wort, and echinacea. (See **Herbal and Dietary Supplements Patient Information chart, p. 8.**)

Give inservices to nurses to bring home the importance of identifying any herbal medications patients are taking, advises Westphal. "If they are aware of possible interactions, it will get them to start asking," she says. (For more information on this topic, see "Do you screen patients for alternative therapy use?" *ED Nursing, August 2001, p. 133.*)

For example, ginseng can elevate blood pressure and cause a patient to present with a hypotensive event, notes Westphal. "This information gives you one more avenue to explore and is also an opportunity for patient education," she says. ■

New study sheds light on anthrax vs. flu

Do you know how to tell a case of ordinary flu from inhalational anthrax? Failing to do so can have potentially devastating consequences for your ED. A new study from Weill Medical College of Cornell University in New York City identifies key symptoms to help you distinguish inhalational anthrax from the flu and other common respiratory conditions.¹

Your ED should develop screening protocols to improve rapid identification of patients with possible inhalational anthrax in the event of a bioterrorism attack, recommends **Nathaniel Hupert, MD, MPH**, assistant professor of public health and medicine at the facility and the study's lead investigator.

The researchers studied 28 cases of inhalational anthrax from 1920-2001 and 4,694 cases of viral respiratory tract illnesses. Here are key findings:

- Fever and cough were common in both groups.
- Neurological symptoms including mental confusion,

SOURCE

For more information on triage of patients with possible inhalational anthrax, contact:

- **Nathaniel Hupert, MD, MPH**, Assistant Professor of Public Health and Medicine, Weill Medical College of Cornell University, 411 E. 69th St., Third Floor, New York, NY 10021. Telephone: (212) 746-3049. Fax: (212) 746-8544. E-mail: nah2005@med.cornell.edu.

loss of consciousness and dizziness, gastrointestinal symptoms such as nausea and vomiting, and shortness of breath were much more common in patients with inhaled anthrax.

- Although sore throat and runny nose were present in some anthrax-infected patients, these symptoms never occurred without at least one of the other symptoms.

During the 2001 anthrax attacks, EDs lacked clear-cut criteria and screening protocols, says Hupert. If an anthrax attack occurs in the future, having a screening protocol could help prevent overcrowding by allowing patients to be put into lower- and higher-risk categories before they arrive at the ED, he says.

"This paper is, to our knowledge, the first attempt to provide a scientific basis for important bioterrorism-related triage decisions," says Hupert. "ED nurses can rely on information like this to design evidence-based patient management strategies."

Reference

1. Hupert N, Bearman GML, Mushlin AI, et al. Accuracy of screening for inhalational anthrax after a bioterrorist attack. *Ann Intern Med* 2003; 139:337-345. ■



Save \$12,000 with resource drive for ED nurses

Wouldn't you love for ED nurses to have a quick, easy way to access department policies, updates, drip charts, dosing protocols, telephone numbers, and procedures for infrequent ordering processes?

"Access to many tidbits of information that ED

nurses and staff members need to memorize and quickly access remains a constant challenge for me,” says **Sharon Wysocki**, RN, MS, clinical specialist for the ED at Northwest Community Hospital in Arlington Heights, IL.

To address this, a computerized resource drive was created that can be accessed by all ED staff. “There is now one easy location for the multitude of information we receive,” she reports. “This has contributed greatly to the organization and management of information.”

While the ED leadership has “write-ability” access, most staff have “read-only” access, Wysocki explains.

She estimates that nurses are able to care for patients an additional hour each day that otherwise would be spent looking up information, saving the ED a minimum of \$12,000 each year.

The information contained in the drive includes:

- instructions for ordering infrequent lab tests and equipment;
- information on severe acute respiratory syndrome from the facility’s infection control department;
- updates on monkeypox, a rare illness that causes rash, chills, and fever;
- hazardous material procedures;
- ED standing medication protocols, standing orders, and assessment protocol;
- an education tracking file containing expiration dates for certifications of ED nurses, including Trauma Nurse Core Curriculum, Crisis Prevention Institute training, advanced cardiac life support, pediatric advanced life support, and cardiopulmonary resuscitation. “This is a great help, as nurses can easily access this drive to verify their expiration dates,” says Cohen.
- a listing of the facility’s trauma categorization criteria.

Nurses appreciate having easy access to the enormous amount of information they need to reference, says Wysocki. For example, for infrequent procedures such as initiating patient-controlled analgesia, the ED nurse can quickly access information on the ordering process.

Recently, when a patient arrived stating he was exposed to monkeypox, the ED nurse and physician used the drive to determine what to order and what type of isolation precautions were needed.

“We are constantly making additions and updates to our resource drive,” Wysocki says. “My challenge remains to keep it simple and user-friendly. It is not intended to be a duplication of the entire department policy and procedure manuals.”

Since information is located in one convenient place for all staff to access, this eliminates various additional policy books, reference material, and the need to

manually update all of the pages in these references, even when simple changes occur, says Wysocki.

Getting updates to the staff without making numerous copies of everything and distributing to their mailboxes, says Wysocki, saves time and money. “Staff are always complaining there is too much paperwork and too much to read,” she adds.

[Editor’s note: For more information, contact Sharon Wysocki, RN, MS, Clinical Specialist, Emergency Department, Northwest Community Hospital, 800 W. Central Road, Arlington Heights, IL 60005. Telephone: (847) 618-1000, ext. 4063. Fax: (847) 614-4098. E-mail: SWysocki@NCH.ORG.] ■



Use this foolproof way to avoid losing resources

Do you find that paper resources such as measurement tapes, dosage charts, and clinical pathways often are missing in your ED? If so, try enclosing these items in two panels of an 1/8-inch thick plastic, suggests **Teri Howick**, RN, nurse educator for the ED at McKay Dee Hospital in Ogden, UT.

At Howick’s ED, locating a pediatric measurement tape frequently was a problem, she explains. “We were always losing it because it got slipped into a pocket or was left on the sheets and went out with the dirty linen,” she says. “The tapes are quite pricey.”

To solve the problem, the facility’s engineering department obtained clear Lucite panels, cut two pieces the length and width of the extended measuring tape with a quarter-inch margin around the edges, glued the two pieces together at the bottom and both sides, and left the top off so the tape could slide in.

A hole was drilled in the top so the tape can be hung on the wall when it’s not in use. It also can be stood in the corner or laid on a stretcher by a child as needed, says Howick. “This makes it impossible to fold up and put into a pocket, so it is more like a giant yardstick,” she says. “We haven’t lost a single one since.”

[Editor’s note: For more information, contact Teri

Howick, RN, Nurse Educator, Emergency Department, McKay Dee Hospital, 4401 Harrison Blvd., Ogden, UT 84403. Telephone: (801) 387-2286. Fax: (801) 387-2244. E-mail: mkthowic@ihc.com.] ■



Arendt KW, Sadosty AT, et al. **The left-without-being-seen patients: What would keep them from leaving?** *Ann Emerg Med* 2003; 42:317-323.

By communicating with patients about estimated waiting time and performing immediate treatments for minor injuries or symptoms, you may be able to prevent patients from leaving without being seen, says this study from Mayo Medical School, Mayo Medical Center, and Mayo Graduate School of Medicine, all based in Rochester, MN.

The researchers contacted 97 patients who had left an ED without being seen and asked them if specific services would have prevented them from leaving the ED. Of these, 70.1% said that immediate temporary treatments such as an ice pack for an injury or bandage for a laceration would have helped them wait longer, and 84.5% said that more frequent updates on wait time would have resulted in them waiting longer.

Some patients said that an estimate of wait time would have allowed them to take care of personal business such as making necessary telephone calls or obtaining food for themselves or a child. Also, according to the survey, the absence of comfort measures such as a television, coffee, or comfortable chairs didn't cause patients to leave without being seen.

The researchers recommend the following:

- Have the triage nurse ask if there is anything the patient needs while they are waiting. This might uncover less obvious needs, such as the need for a cool compress for a headache, the researchers suggest.
- Ensure that nurses communicate well with patients while they are waiting for a formal consultation with a physician.
- Put available resources into customer service education for ED personnel instead of waiting

room improvements.

- Make on-site day care available for free or at a minimal charge, as this may help patients with a child to wait longer. ▼

Brown JC, Klein EJ, Lewis CW. **Emergency department analgesia for fracture pain.** *Ann Emerg Med* 2003; 42:197-205.

Pain medications frequently are not given to patients with fractures, pain severity scores are often not recorded, and pediatric patients are least likely to receive analgesics, according to this study from the University of Washington and Children's Hospital and Regional Medical Center, both based in Seattle. Here are key findings:

- Of 2,828 patients with isolated closed fractures of the extremities or clavicle, 64% received an analgesic. This percentage decreased to 58% for patients 70 years and older, and 54% for patients ages 0 to 3.
- Pain severity scores were recorded for 59% of patients overall and in only 47% of children younger than 4.
- Even for patients with documented moderate or severe pain, 73% of patients overall and 62% of children younger than 4 years received an analgesic.

"Educating providers on nonverbal options for measuring pain, especially in young children, may improve measurement and documentation of pain status and facilitate recognition and treatment of pain in these vulnerable populations," conclude the researchers.

In light of these findings, the researchers recommend using the following strategies to improve pain management in the ED:

- **Use** simple pain scales for nonverbal patients and infants and young children.
- **Assess** adequacy of pain management in very old and very young patients.
- **Educate** staff about the safety of narcotic medications even in young children.
- **Emphasize** the importance of documenting pain severity scores in all patients including infants, who had fewer pain severity scores recorded than any other group. ■

COMING IN FUTURE MONTHS

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■ Update on treatments for respiratory diseases

■ How to avoid violating patient privacy regs

■ Novel ways to boost patient satisfaction

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CE instructions

Nurses participate in this continuing education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue.

Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material.

After completing this semester's activity with the **December** issue, you must complete the evaluation form provided in that issue and return it in the reply envelope provided in order to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

CE questions

After reading this issue of *ED Nursing*, the CE participant should be able to:

- **Identify** clinical, regulatory, or social issues relating to ED nursing (See *Do you screen patients for substance abuse? Too many slip through the cracks; When should you obtain alcohol levels, tox screens?* in this issue.)
- **Describe** how those issues affect nursing service delivery. (See *Study: Change the way you care for acute MI patients.*)
- **Cite** practical solutions to problems and integrate information into the ED nurse's daily practices, according to advice from nationally recognized experts. (See *Journal Reviews.*)

17. Which of the following is true regarding substance abuse screening in the ED, according to Gail D'Onofrio, MD, MS, associate professor for the section of emergency medicine at Yale University School of Medicine?
 - A. Offer a referral to patients if substance abuse is identified.
 - B. You should not screen unless you can ensure the patient gets into a treatment program immediately after a problem is identified.
 - C. Only social workers are qualified to screen patients.
 - D. Effective screening takes a minimum of one hour.
18. Which is true regarding obtaining a blood alcohol level and urine toxicology screen, according to Stephen Brown, RN, BSN, MHN, CEN, an ED nurse at University of California-Irvine Medical Center?
 - A. This should be done only if the patient acknowledges a substance abuse problem.
 - B. Levels should be shared with employers.
 - C. All blood alcohol levels can be shared with police.
 - D. You must determine if drugs or alcohol are contributing factors to the patient's clinical condition.
19. Which of the following percutaneous coronary interventions uses radiation therapy at the site of a stent to prevent or shrink scar tissue?
 - A. Balloon angioplasty
 - B. Drug-eluting stenting
 - C. Brachytherapy
 - D. Rotational atherectomy
20. Which of the following is recommended to prevent patients from leaving without being seen, according to a study published in *Annals of Emergency Medicine*?
 - A. Providing temporary treatments for minor symptoms
 - B. Adding a television to the waiting room
 - C. Investing in more comfortable chairs
 - D. Putting resources into waiting room improvements as opposed to customer service

Answers: 17. A; 18. D; 19. C; 20. A.