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IN THIS ISSUE

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Pediatric psychiatric cases are coming in record numbers: Don't risk tragedy

Many EDs report 'doubling and tripling' of pediatric psychiatric patients

A man screaming in pain after a motor vehicle accident. A 12-year-old boy who has just attempted suicide. Which patient will get your attention first?

In the ED, the needs of psychiatric patients often are pushed aside to address life-threatening emergencies such as traumatic injuries and heart attacks, says **Jacqueline Grupp-Phelan**, MD, MPH, assistant professor of pediatrics for the division of emergency medicine at Children's Hospital Medical Center in Cincinnati. "An airway issue is going to take precedence over a child who is acutely psychotic, because we have to deal with the patient most likely to have a bad outcome," she says.

However, children with psychiatric emergencies are coming to EDs in rapidly increasing numbers, so you must be prepared to care for these patients, says Grupp-Phelan.

Children's Hospital Medical Center is part of a large network of pediatic hospitals, and the facilities have seen doubling and tripling of psychiatric emergencies, she reports.

Last fall, the ED at Children's National Medical Center in Washington, DC, was treating about 50 children with psychiatric emergencies per month, according to **Lisa M. Ring**, RN, MSN, CPNP, advanced practice specialist for the emergency medicine and trauma center. "Our current numbers are 150-200 children per month," she reports.

EXECUTIVE SUMMARY

EDs nationwide are experiencing a dramatic increase in children with psychiatric emergencies, including psychosis, hallucinations, schizophrenia, and violent outbursts.

- Create a protocol for pediatric psychiatric patients.
- Know what resources exist in your community.
- Consider training ED nurses to assess psychiatric emergencies, including linking patients with follow-up services.

At least 200,000 children with psychiatric problems are seen in EDs each year, according to a 2002 study.[1] Reasons include decreased numbers of inpatient beds and lack of access to mental health providers, says Grupp-Phelan.

To make sure that children with psychiatric emergencies are given appropriate care, you'll need to find creative solutions, she says. "We may not have gone into emergency medicine to deal with psychiatric issues, but nationally there are as many visits for mental health problems as for asthma," Grupp-Phelan says. "So whether we like it or not, we have to gear ourselves up for this."

To improve care of children with psychiatric emergencies, use these effective strategies:

• **Develop a protocol.**

The following protocol for pediatric psychiatric patients is being developed at her ED, says Ring: Once a child is identified in triage as having a psychiatric emergency, a complete medical examination will be given. If the child is determined to be medically stable, he or she will go to a separate area in close proximity to the ED, staffed with an administrative assistant, a psychiatric technician, and a social worker.

"With this system, families will be provided with a dedicated psychiatric staff to meet their unique needs," says Ring.

Currently, these children are triaged, examined, and receive a psychiatric consult, all in the main ED, she says. "We have only one consult room, so we often use our observation unit for overflow," she explains. **(See related story on how to de-escalate children with psychiatric emergencies, p. 91.)**

• **Evaluate the child's safety.**

Children may not use the words you expect regarding suicide, so you must ask probe further if their intent is unclear, says **Deby Campbell**, RN, MSN, clinical nurse specialist for the pediatric ED at Banner Desert Medical Center in Mesa, AZ.

"For example, the response I recently got from a 12-year-old girl was, 'What difference does it make if I'm not hanging around?'"

When Campbell asked the girl if she was considering hurting herself, the child said emphatically that she "didn't mean it that way," and added, "There are too many great things to live for."

"I was comfortable that she was upset, crying, and fighting with her mother, but she wasn't considering suicide," says Campbell.

Obtain the history from the patient first in private and then from the parents, she says. "This builds trust with the patients that you are caring for them," Campbell says.

Perform the assessment out of the earshot of others, she stresses. "Listen to the child in private, just like you would any other patient," Campbell says.

Even if you already were given a history by a parent or pre-hospital provider, never forget to do a thorough head-to-toe assessment, says Campbell. "Assess for airway, breathing, and circulation changes secondary to an ingestion, and also look for bruising, slash marks, or hidden knives in shoes," she instructs.

Don't make promises you can't keep about what you will share with the child's parents about substance abuse or pregnancy, says Campbell. "I tell the patient that it would be best for them to tell their parents, but I will stay in the room if they would like me to be there," she says.

If the patient answers "yes" when you ask if he or she intends to harm him or herself, the next step is to then ask for more specifics, says Campbell. "If I ask, 'Do you have a plan?' and the response is 'No, not really,' that tells me they are reaching out for help," she says.

If the child does have a plan, you need to assess the potential for acting upon it, and consider any previous attempts, she says.

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Editorial Questions

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A report titled *Mental Health Treatment for Self-Injurious Behaviors: Clinical Practice Guidelines for Children & Adolescents in the Emergency Department* (product No. 000706) gives model clinical practice guidelines for emergency care providers confronted with self-injurious behavior including suicide, substance abuse, and intentional self-destructive behavior. The cost is $2.20 per copy plus $3.50 for shipping. The report can be ordered from the Emergency Medical Services for Children (EMS-C) web site (www.ems-c.org). Click on "Products & Publications," "EMS-C Product Catalog," and "Product Order Form." Or contact the EMS-C Clearinghouse, 2070 Chainbridge Road, Suite 450, Vienna, VA 22182. Telephone: (703) 902-1203. Fax: (703) 821-2098. E-mail: emsc@circlesolutions.com. Web: www.ems-c.org.

If a child has harmed him or herself, Campbell recommends asking, "What did you expect to happen?" or "What did you want to feel?" Responses vary widely, from "I wanted my boyfriend to be sorry and make up with me," to "I wanted to die," she says.

• Ensure that children receive follow-up care.

Although you need to assess safety while a child still is in your ED, a decision also must be made as to whether the patient needs to be admitted or can go home, says Grupp-Phelan.

"A system needs to be set up so we can make sure we aren't sending kids home who are at high risk for suicide," she says.

If you don't feel there are adequate resources to meet the child's social and medical needs, inpatient admission may be the only alternative, says Grupp-Phelan.

"We need to be able to sleep at night after we see these patients, and we are absolutely strapped by what is in our community, in terms of follow-up support," she says.

You must know exactly what resources exist in your community, says Grupp-Phelan. "In the ED, we really need to understand what is available and what we can access," she stresses. "Every community has resources, and you need to understand what yours are."

It helps to have a nurse or social worker in your ED who can help link families to available follow-up care, says Grupp-Phelan. That individual also should be knowledgeable about insurance issues, she adds.

"Unfortunately, that is the biggest stumbling block," she says. "So that individual ends up being an 'insurance technician' in addition to being able to assess the psychiatric needs of a child."

• Invite nurses to become experts.

Most ED nurses are experienced in caring for abused or neglected children, whose complex social and medical needs mirror those of psychiatric patients, notes Grupp-Phelan. "We have care structures in the ED for children with those problems, so there is a good model already in place," she says.

Sexual assault nurse examiners (SANEs) are another example of nurses who can assess a patient's medical and social needs and link them with follow-up services, says Grupp-Phelan. "These are regular ED nurses who have decided this is an important issue, and they want to be specially trained," she says.

Similarly, ED nurses could be trained to evaluate children with psychiatric emergencies, she suggests.

"If nurses are able to resuscitate a kid and do SANE nursing at the same time, it's not a far leap to think they could do this as well," says Grupp-Phelan. "There could be a cadre of specially trained nurses in each ED."

Reference

1. Melese-d'Hospital IA, Olson LM, Cook L, et al. Children Presenting to Emergency Departments with Mental Health Problems. *Acad Emerg Med* 2002; 9:528-a. ■

Do you know how to de-escalate children?

You may be familiar with pediatric advanced life support training, child abuse screening, and ensuring accurate medication dosages for children. But do you know how to de-escalate children with

psychiatric emergencies?

If not, obtain additional training now, advises **Joe Novak**, PsyD, director of the Mental Health Network at Northwest Community Hospital in Arlington Heights, IL. "We have seen a significant increase in psychiatric patients coming to the ED, and that is true across the country," he reports.

As an ED nurse, you must be comfortable providing appropriate interventions for children with serious emotional disturbances, says Novak. "The No. 1 issue is safety, for both patients and staff," he emphasizes.

To de-escalate children with psychiatric emergencies, use these strategies that work:

• Limit the number of staff who have direct contact with the child.

Take steps to ensure that children with psychiatric issues receive as little stimulation as possible, says **Shirley Berman**, RN, ED nurse manager at Children's Hospital Medical Center of Akron (OH).

"This can help prevent outbursts or out-of-control behavior," says Berman, adding that the number of psychiatric patients in her ED has almost doubled in the last few years.

When children present with a psychiatric problem, the primary assessment is done at triage, and they are placed in a private room, says Berman. "If the social worker is available, the nurse does not need to see the patient at that time unless they need medication," she says.

Usually the only staff the child interacts with are the social worker and the physician, unless they become combative or are a threat to themselves or others, says Berman. "If they are in the ED for a prolonged time, the nurses will reassess at least once an hour," she explains.

If the child is being admitted, a nurse from the psychiatric unit comes down to explain the process to the family, Berman says. "The child is meeting someone they will see on the inpatient unit, and that seems to makes them more comfortable," she says.

• Be trained in verbal interventions.

Most children with psychiatric emergencies do not require restraints, says **Richard Westgate**, RN, manager of pediatric emergency services at Wellstar Health System in Marietta, GA. "Many can be de-escalated with verbal interventions," he says.

ED staff at his facility receive training in verbal de-escalation skills, with an eight-hour nonviolent crisis intervention training course taught by a consultant with a law enforcement background, he says. The training is offered twice a year to any staff member, says Westgate. **(See resource box, right, for information on crisis intervention training.)**

You must recognize that verbal threats are not physical attempts and should be met only with verbal interventions, he says. Westgate recommends making contracts with your patients for short-term goals.

"For example, if your patients will contract with you not to make any verbal threats against staff, you will contract to spend 15 minutes with them talking," he says.

• Ensure your own safety.

At Northwest Community Hospital, all ED nurses are required to have crisis prevention training, which covers safety assessment, nonverbal communication, and restraint and seclusion, says Novak.

"Safety education includes procedures to follow consistently, for patients identified as falling into the psychiatric category," he says.

For example, nurses are taught that if a situation becomes physical and restraints are needed, proper procedures with a team approach should be followed, so no one is at risk of getting hurt, he says.

Nurses also are taught to enter a room always facing

SOURCES/RESOURCE

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- **Joseph J. Novak**, PsyD, Director, Mental Health Network, Northwest Community Hospital, 800 W. Central Road, Arlington Heights, IL 60005. Telephone: (847) 618-4075. Fax: (847) 618-4129. E-mail: jnovak@nch.org.
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The Crisis Prevention Institute offers nonviolent crisis intervention programs with one or two workshops including training in use of verbal and nonverbal techniques, appropriate use of physical intervention, team intervention strategies, and how to debrief after a crisis. For more information, contact:

- **Crisis Prevention Institute**, 3315-K N. 124th St., Brookfield, WI 53005. Telephone: (800) 558-8976 or (262) 783-5787. Fax: (262) 783-5906. E-mail: info@crisisprevention.com. Web: www.crisisprevention.com.

the patient and with their backs to the door, says Novak. "This allows staff to observe a patient and have the exit right behind them," he says.

Not every psychiatric patient is violent, but you may not know exactly what you're dealing with, says Novak. "You need to take into account the reason they came to the ED in the first place," he says. "If substances are involved, there is unpredictability. The patient may be calm at the moment, but that may not continue."

If you determine a child is suicidal or combative, you should move the patient to a safe area, he says. "The area should be low risk in terms of tools available to them," says Novak. You also should help the patient into a gown immediately, so that any contraband can be secured rapidly, he adds.

• Don't allow children to wait for hours in the ED.

Children with psychiatric emergencies may come to your ED in the middle of the night, which means that the resources you normally rely on will be closed, says Novak.

"These situations don't always happen at 11 a.m.; they can happen at 2 a.m.," he says. "We've seen a significant increase in all hours of the day, which is a major change for us."

You need to know which crisis workers can be reached at any hour of the day, says Novak. "If you don't know that, you will have a kid sitting in the ED for hours," he says. "This poses a risk, because the longer the patient has to sit there without intervention, the more risk there is of them escalating." ■

Painkiller overdoses are rising dramatically

When you think of drug overdoses, you may think of heroin, cocaine, or "club drugs" such as Ecstasy. But according to a 2003 report from the Rockville, MD-based Drug Abuse Warning Network (DAWN), prescription painkillers also are bringing patients to the ED.

Statistics show that ED visits related to narcotic analgesic abuse have more than doubled between 1994 and 2001.[1] To improve care of these patients, use these effective strategies:

• Have a high index of suspicion for older adults.

It is mostly middle-aged adults, not teen-agers, who are abusing narcotic analgesics, notes **Kathy Crow**, RN, BSN, MICN, CEN, educator for emergency and trauma services at Saint Francis Medical Center in Lynwood, CA. She points to a statistic in the DAWN report that in 2001, the average age was 37 for patients who came to the ED because of narcotic analgesic abuse.

"Abuse of narcotic analgesics is becoming as common as alcohol abuse in the baby boomers," says Crow.

• Realize that patients may have legitimate reasons for taking painkillers.

Some patients may be in severe pain and simply end up taking too much medication, says **Allison A. Muller**, PharmD, CSPI, clinical managing director for The Poison Control Center at the Children's Hospital of Philadelphia.

For instance, a patient with tooth pain may inadvertently exceed the safe dosage of their prescription pain medication or an over-the-counter medication such as acetaminophen, she says.

"Patients may present with a chief complaint of pain, but ultimately end up admitted for an overdose," she says.

When you ask patients what medications they are taking, specifically ask about over-the-counter drugs, she advises.

"For example, they may be taking a prescription pain medication containing oxycodone and acetaminophen as well as over-the-counter acetaminophen, so unknowingly the patient has an excess of acetaminophen on board," she explains.

• Remember that narcotic analgesics often contain acetaminophen.

Patients may have liver damage from chronic use of narcotic analgesics, especially if high doses are taken with the acetaminophen total exceeding 7.5 g a day, says Muller.

"Even if they are taking a lot of acetaminophen for the last 24 hours, they are at risk for liver damage," she says.

However, getting an acetaminophen level for a patient who is chronically abusing narcotic analgesics won't be very useful, says Muller. "They are only useful for relatively acute ingestions," she explains. "If someone is taking an excess of a pain medication that contains acetaminophen for several days, they may not

EXECUTIVE SUMMARY

ED visits related to narcotic analgesic overdoses have risen dramatically in recent years, according to a report from the Drug Abuse Warning Network.

- Ask patients about over-the-counter drugs.
- Acetaminophen levels are more useful for acute rather than chronic ingestions.
- When administering the antidote naloxone, start with the lowest initial dose.

SOURCES

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A report on ED visits related to narcotic analgesics can be downloaded at no charge at the Drug Abuse Awareness Network (DAWN) web site. Go to www.samhsa.gov/oas/dawn.htm#EDcomp. Click on "The DAWN Report: Narcotic Analgesics."

have an appreciable acetaminophen level. This can be misleading."

Instead, liver function tests should be followed, Muller says.

• Know that patients may not be aware of what they actually have ingested, especially if the pills were purchased on the street.

"They may think they are buying [pills containing oxycodone and acetaminophen], and it turns out they are getting antihistamine tablets instead," says Muller.

She points to cases in 1996 when heroin addicts were coming to the ED because the drug was tainted with scopolamine, a potent anticholinergic agent. "They presented very agitated, hypertensive, and hallucinating, and none of those conditions are associated with heroin," she says.

In that case, local poison control centers were able to provide information that affected how the patients were treated in the ED, she notes.

By calling the poison control center national hotline number [(800) 222-1222], you are automatically put in touch with your local poison center, says Muller. The poison control center can help shed light on what the formulation is, and also will be familiar with slang patients may use, she says.

Realize that the drug may not appear on a toxicology screen.

Not all narcotics analgesics are revealed on a toxicology screen, says Muller.

"If you have a suspicion that somebody has taken an overdose of [a prescription containing acetaminophen and propoxyphene], the opioid component may not show up on the opioid screen," she says.

Check with your lab if you're looking for something specific, and let the patient's clinical picture guide you rather than the toxicology screen, she recommends.

• Start with the lowest dose of a reversal agent for narcotic analgesics.

The most common antidote used for opioid toxicity is naloxone, and you should start with the lowest initial dose of 0.4 mg intravenously, says Muller. "If you immediately start on the high end, you may precipitate a withdrawal reaction in a opioid-dependent patient, so start low," she advises.

Short-acting naloxone is better to use, rather than the longer-acting opioid antagonists, says Muller. Those opioid antagonists with longer durations of action such as naltrexone or nalmefene can prolong a withdrawal reaction and observation time, she explains.

"You may watch the patient for three or four hours and they seem fine, but they are only fine because the long-acting opioid antagonist is on board," Muller says.

Reference

1. Substance Abuse and Mental Health Services Administration, Office of Applied Studies. *The Drug Abuse Warning Network Report: Narcotic Analgesics in Brief.* Rockville, MD; 2003. ■

Boost morale of ED nurses with these novel incentives

Looking for ways to boost morale? You may be surprised at how simple and inexpensive the solutions are.

"Many of the best ideas are not high-cost items," says **Sandy Fox**, RN, ED nurse manager at Avera McKennan Hospital in Sioux Falls, SD.

Nurses may accept a position based on hours or dollars, but they stay because they enjoy the work environment, she says.

"The best return on your investment is to create an environment that employees enjoy working in," says Fox.

To boost morale of ED nurses, offer these incentives that work:

• Award an ED employee of the month.

There is a hospital employee of the month program, but recently the ED began a separate program to honor its staff, says Fox. Candidates are nominated by ED

EXECUTIVE SUMMARY

Incentives to boost morale of nursing staff include paying for the certification for emergency nurses exam and review course and awarding an ED employee of the month. Other ideas are:

- Ask nurses to name three things they would like to change in the ED.
- Offer flexible shifts to nurses with seniority.
- Have a policy that staff must communicate professionally by avoiding gossip and negativity.

staff, and the winner is selected from the nominees at staff meetings, she says.

"Photos and an interview with the winner are posted on a bulletin board, so that others will get to know more about them," she says.

The winner will receive a month of parking in an area where only senior employees and management are allowed to park, she says. "There also are gifts such as T-shirts and gift certificates for the coffee shop or gift shop," says Fox.

• Pay for the certification for emergency nurses (CEN) exam.

If ED nurses choose to take the CEN exam, the hospital pays for the exam, which costs $180 for nurses who are members of the Emergency Nurses Association, and $320 for nonmembers, says Fox. The facility also offers nurses a review course at no charge, which is periodically provided at the hospital by an outside agency at a cost of $4,500 per class, she says.

Paying for the test is important because more nurses are likely to take the exam, says Fox. "Most of the nurses have children, and paying the total amount would probably keep many staff members from taking the exam," she says.

The review ensures that nurses are well prepared when they take the exam, says Fox. All nurses who pass the exam are given a $60 watch with the hospital logo, she adds.

• Give nurses a free vacation.

To reward seniority, a program was started to give ED nurses with 15 years experience an all-expense-paid group trip, including a spouse, says Fox. Previous trips have included Disney World, Lake of the Ozarks, and a golf resort in Northern Minnesota, she says.

"Currently, we have about eight nurses who are eligible for the trip," she says. "It is offered to them every five years after they hit the 15-year mark."

• Give nurses with seniority more flexible shifts.

Currently, senior ED nurses are being surveyed as to whether they would like an eight-hour shift instead of a 12-hour shift, says Fox.

"At this point we are not sure of what staff would prefer, and [an eight-hour shift] may end up being offered to more than just the senior staff," she says.

At Christiana Care Health Services in Newark, DE, ED nurses with the most seniority are being offered a Monday through Friday position and/or a position with no off-shift rotation, says **Karen Toulson**, RN, ED nurse manager.

• Ask nurses to plan major changes.

A recent triage redesign project was successful largely due to input from ED nurses, says Toulson. A new private area was added for patients to talk to the triage nurse, with seven triage assessment bays, she explains.

"We will be starting another project to add more patient care rooms, and a staff nurse is actively involved in the planning and design phases of this project," she reports. Nurses were encouraged to give input on workflow and placement of essentials such as ice machines, telephones, computers, and sinks, she adds.

ED nurses are encouraged to become involved in ongoing projects, Toulson says. "We currently have nurses that are leading unit-based committees on retention and recruitment and performance improvement," she says.

• Have a zero-tolerance of negativity policy.

Negativity toward staff members, physicians, and ancillary service staff is not tolerated, says Toulson. "This has made a positive impact on the morale of our department," she says.

All ED staff are expected to communicate professionally, emphasizes Toulson. "This also entails gossip that is negative and detrimental to the team and includes staff talking about others in the break room where the comments would not be considered private," she adds.

• Ask staff what they would like to change in the ED.

Ask nurses what they perceive as barriers to patient care, what equipment problems they may have, and what suggestions they have for making the ED a better place to work, suggests Toulson.

At Christiana, ED nurses were surveyed about the top three things they would change in the ED if they could. "We received roughly a 30% return rate," says Toulson.

Toulson divided the list into short-term and long-term solutions, she says. "The short-term fixes were implemented, and we keep the staff updated about the progress of those items in the long-term category," she says.

Short-term solutions included developing a policy for a code of conduct during trauma resuscitations,

and long-term solutions include the problem of taking verbal orders over the phone for admitted patients, says Toulson.

"One of the ED staff members and myself devised an interim order sheet that will give the inpatient unit basic orders until the patient is seen by the attending physician," she says. ■

Is your care of pediatric poisonings outdated?

Knowing the correct interventions can save lives

When a child presents with assessment findings that just don't add up, poisoning often can explain the situation, says **Laura M. Criddle**, MS, RN, CS, CEN, CCRN, CNRN, emergency, trauma, and neurological clinical nurse specialist at Oregon Health and Sciences University in Portland.

"Why does this child have a profound metabolic acidosis? Why is this boy seizing? What is a 3-year-old doing in V-fib?" she asks. "Think toxicology!"

To dramatically improve care of this group, take the following steps:

• **Find out the details about the ingestion.**

Try to discover specific information about the time of ingestion, actual amount, substance or substances involved, and any home or pre-hospital interventions, says Criddle. Answer the following three questions, she says: What is the child's current status? Has it changed post-ingestion? Is it changing quickly?

"Any ingestion that produces seizures, extreme lethargy/coma, or cardiac or respiratory alterations is serious and can progress quickly," warns Criddle. **(See related story on assessment and intervention on p. 97.)**

Although exposures are very common, it is unusual for a child to have a severe reaction to common household substances such as cosmetics, cleaning solutions, or plants, says Criddle.

"Most serious poisonings in children occur in adolescents who deliberately ingest a substance with recreational or suicidal intent," she notes. "The other pediatric group who really get into trouble is the small child who ingests potent pharmaceutical agents such as cardiac meds."

• **Know risks of ingesting multiple substances.**

The percentage of people who die after ingesting a single agent is extremely low, says Criddle.

"The vast majority of fatal poisonings occur when two or more substances are involved," she says. "The presence of polypharmacy should always be a big red flag."

• **Know current treatments.**

Syrup of ipecac is no longer considered appropriate to treat most poisonings, and there is a lack of evidence to support the use of gastric lavage, says Criddle.

Activated charcoal is the single most effective agent in the treatment of ingested toxins, Criddle says. "It works for a wide variety of common poisonings," she says.

EXECUTIVE SUMMARY

Have a high index of suspicion for accidental ingestions in pediatric patients.

- Two common life-threatening poisonings are deliberate ingestions by suicidal adolescents, and small children who ingest potent pharmaceutical agents.
- Most fatal poisonings occur when two or more substances are ingested.
- Activated charcoal is the most effective agent in the treatment of ingested toxins, but this is not effective for alcohol, iron, heavy metal, acid, or alkali ingestions.

SOURCES

For more information on pediatric poisonings, contact:

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"However, it is important to note that it is ineffective for alcohol, iron, heavy metal, acid, or alkali ingestions."

• **Understand side effects of antidotes.**

While textbooks contain an impressive list of antidotes, many are expensive, rarely used, or carry significant side effects, says Criddle.

Antidotes such as naloxone, oxygen, D50, sodium bicarbonate, calcium chloride, and N-acetylcysteine are cheap, safe, and effective, she says. "Fab fragments, fomepizol, flumazenil, and glucagon are effective but expensive," she says. "Physostigmine can cause as many problems as it is designed to cure."

• **Make sure that lab levels are measured the same way as the referring facility.**

When a child had overdosed on acetaminophen and showed very high acetaminophen levels, plasmaphoresis was ordered based on those labs, recalls **Barbara Coffel**, RN, MSN, clinical nurse specialist for the neonatal pediatric critical care transport team at Riley Children's Hospital in Indianapolis.

"It turned out that we were looking at deciliters per liter, and the lab that did the values reported the levels in a different manner," says Coffel. This problem can occur when a child has elevated drug levels done at a referring facility, and treatment is begun immediately because of critical lab values, she explains.

Fortunately, the discrepancy was caught in the nick of time, says Coffel. Otherwise, the child would have had a dialysis-grade catheter placed and unnecessary aggressive treatment including administration of heparin with potential side effects, she explains.

"To be certain that the labs are reporting like information, it would be worth the time involved to repeat values before initiating aggressive treatment," says Coffel. "Be certain that you are comparing apples and apples, not apple and oranges."

• **Do a toxicology screen for abuse cases.**

You may be treating head injuries for a suspected nonaccidental trauma, but this same child may have ingested or been given a toxic substance, says Coffel. "So as a part of a workup on abuse cases, we do a toxicology screen," she says. "If toxicology issues are undetected, this can really skew the neuro assessment that you get." ■

GUEST COLUMN

Use these tips to assess and treat ingestions

By **Theresa Cromling**, RN
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One busy afternoon in the ED, a mother brought her 3-year-old daughter to triage after an ingestion of an unknown quantity of the brother's clonidine tablets. The mother stated that the daughter could have ingested up to 10 pills, since the mother kept extra pills in a bag in her purse.

The child was lethargic and pale, and her respirations at triage were 10. She was placed on cardiac and oxygen saturation monitors, which showed a tachycardic rate of 136, blood pressure of 136/64, oxygen saturation at 96%, and respirations of 16 to 18. Intravenous access was initiated with a No. 22 gauge catheter in her right hand, and she was given an initial bolus of normal saline at 20 cc/kg.

A No. 12 French nasogastric tube and 200-cc warm normal saline were used to irrigate her stomach contents and evacuate many pill fragments.

Within nine minutes of arrival at triage, she had been stabilized and the charcoal administration was completed. Her blood pressure dropped to 80/44 due to the mode of action of clonidine, which has a central sympatholytic, down-regulating effect. As we stimulated her, her mental status, pulse, and respiratory rate increased, but she continued to be somnolent.

Since clonidine ingestions resemble narcotic overdoses, she was given 1 mg of naloxone, and her altered mental status lightened for a short time, but her respiratory status was unchanged. She was admitted to the pediatric intensive care unit for observation, because the half-life of clonidine is 12-16 hours.

Rapid assessment and initiation of interventions are paramount in having desirable outcomes after toxic ingestions in children. Because children are smaller and have faster metabolic rates than adults, they are at a significantly greater risk of being harmed from the exposure.

Initial assessment of the child that has been exposed to a toxin consists of an evaluation of the ABCs: airway, breathing, and circulation.

The secondary survey must include a history of the event. This can be the best way to identify the toxin. Where was the child: in the garage, in the yard, or the kitchen? What products are available in these areas? When was the last time the caregiver saw the child acting normally?

Physical assessment also may help to identify the toxin. The child may be displaying a toxidrome — a cluster of signs and symptoms that can suggest a specific toxin or type of product — with treatment initiated accordingly. For example, the toxidrome for anticholinergic medicines such as antihistamines and tricyclic antidepressants is "red as a beet" (flushing), "dry as a bone" (dry mucus membranes), "hot as a hare" (febrile), and "mad as a hatter" (delirium). These symptoms may be caused by some plants, also.

Specific interventions depend on the toxin, and poison control centers are the best reference for parents as well as health care professionals. Syrup of ipecac should be administered only at the direction of a physician or the poison control center, because emesis is contraindicated with some toxins such as corrosives, and vomiting delays the use of charcoal.

Activated charcoal is administered as 1 gm/kg in children and 50-100 g in adults, and it is administered orally or through a nasogastric tube. The charcoal binds with the toxin and prohibits the absorption in the stomach and small intestine. Remember that charcoal stains whatever it touches, and that includes the patient's teeth and the nurses' scrubs!

There are some agents that do not bind with the charcoal. You can remember those toxins with the pneumonic "PHAILS": pesticides, hydrocarbons, acids/alkalis, iron, lithium, and solvents. Multiple doses of activated charcoal may be necessary for drugs such as phenobarbital, theophylline, and carbamazepine.

Overzealous administration should be avoided to prevent iatrogenic complications such as aspiration and bowel obstruction. A cathartic such as sorbitol may be given to older teens and adults, but it should be avoided in children and the elderly because of the potential for disrupting electrolytes with diarrhea.

An important point to keep in mind during evaluation is that the patient's status may change and you must be prepared. Have a working monitor and suction equipment at the bedside, and assess your patient frequently. Know the normal vital sign parameters for the child's age group.

Some medications have a very long half-life, so symptoms may persist for a prolonged time. The child with altered mental status has a high risk for falling, choking on secretions or charcoal, having a seizure, or experiencing respiratory difficulties so you must take the appropriate precautions.

[Editor's note: The National Safe Kids Campaign is a Washington, DC-based nonprofit organization for the prevention of unintentional childhood injury. Cromling can be reached at Duke University Medical Center, Box 3869, Durham, NC 27705. Telephone: (919) 416-8202. Fax: (919) 286-9219. E-mail: crom l001@mc.duke.edu.] ■

COST-SAVING TIP

Save money with 'Price is Right' contest

Do you ever see nurses in your ED misusing or wasting supplies, and wish they knew what these items actually cost? Here's a solution: Ask nurses to guess what the ED pays for various common items, suggests **Patricia Carroll**, RN,BC, CEN, MS, former ED nurse at Manchester (CT) Memorial Hospital and founder of Educational Medical Consultants, a Meriden, CT-based consulting company specializing in educational programs for health care professionals.

A "Price is Right" contest was held at Carroll's former ED, with 10 products set up in a conference room for 24 hours so that every nurse had a chance to participate. "Night shifts usually get excluded from these things," she notes.

ED nurses were given sheets with each item listed and asked to guess the price of each item. **(See sample contest form, below.)**

"To avoid confusion, this corresponds to a display set out on tabletops, so that the nurses can see exactly what the items are," she says.

The nurse who guessed closest to correct won a

Sample Contest Form

Nurse's name _____
Time of day _____

Items

1. 4 x 4-gauze pads individually wrapped, per pad/price _____
2. Foley catheter insertion kits, per kit/price _____
3. Pulse oximetry probe, nondisposable/price _____
4. Surgical adhesive/price _____
5. Burn cream/price _____
6. Disposable suture removal kits/price _____
7. IV solution 1,000 cc D5 ½ normal saline/price _____
8. Hand-held tympanic thermometer/price _____
9. Cartridge for unit-dose injectable medications/price _____
10. Endotracheal tube/price _____

Source: Patricia Carroll, RN,BC, CEN, MS, Founder, Educational Medical Consultants, Meriden, CT.

prize, such as a pass for free meals in the cafeteria or a credit at the hospital gift shop, Carroll says.

The contest put an end to an expensive habit that ED nurses had, says Carroll. "The problem was that it took a while for us to get a chart when a patient was very ill and rushed in by EMS," she says.

Nurses tended to grab individually wrapped 4 x 4 gauze pads to write on at the bedside, says Carroll. "We could write on the wrappers, and they were big enough," she says. "Once nurses learned how expensive these items were, no one used them as handy note paper again."

Instead, ED nurses carried notepads or used very inexpensive paper towels for emergency charting instead, says Carroll. For your ED's contest, do some research to find out what your department's "budget busters" are, she says.

Your ED's "budget-busters" might be products that are being used improperly; items that are easily broken if they are not handled with care, such as hand-held monitors or pulse oximetry sensors; nondisposable items that end up in the laundry or trash because people are careless when cleaning up; or items that are handy to have at home, such as surgical adhesive, suggests Carroll.

"The bottom line is that most nurses don't have a clue what things cost, and therefore, don't think twice about it," she says. "Once their eyes are opened, they realize that if money is going to replace equipment and buy twice the number the supplies that should be needed, that's money that is not available for salaries — either raises, or additional staff positions."

[Editor's note: For more information, contact Patricia Carroll, RN, BC, CEN, MS. E-mail: ED@nursenotebook.com. Web: *www.nursesnotebook.com.*

Do you have a cost-cutting tip to share with ED Nursing *readers? If so, please contact Staci Kusterbeck, Editor,* ED Nursing, *280 Nassau Road, Huntington, NY 11743. Telephone: (631) 425-9760. Fax: (631) 271-1603. E-mail: StaciKusterbeck@aol.com.]* ■

JOURNAL REVIEW

Laposa JM, Alden LE, Fullerton LM. **Work stress and post-traumatic stress disorder in ED nurses/ personnel.** *J Emerg Nurs* 2003; 29:23-28.

Most respondents to a survey about work stress thought they had received inadequate support from hospital administrators after a traumatic incident, according to this study from University of British Columbia in Canada.

The researchers surveyed 51 ED personnel from a large urban hospital, with most respondents being ED nurses, about work-related stress and trauma. Here are key findings:

- A total of 20% considered changing jobs as a result of a traumatic incident at work.
- Most respondents (67%) did not feel they had gotten the support they needed.
- Only 18% attended critical incident stress debriefing.
- None sought outside help for their distress.

The researchers say the findings underscore the need for awareness of workplace stress and post-traumatic stress disorder symptoms in their employees. They note that the vast majority of respondents did not attend debriefing programs offered to them by the hospital, but those who did were inclined to report feeling more support and less interpersonal conflict.

The researchers also found that interpersonal conflict was closely linked with post-traumatic stress disorder symptoms. They theorize that supportive social relationships can lessen the impact of incidents events, so managers should focus on reducing interpersonal conflicts in the ED.

"A more positive interpersonal environment may make ED personnel less likely to be traumatized by the work they do," wrote the researchers. "Supportive social relationships have been shown to buffer the impact of traumatic events, and this suggests that providing emotional support for traumatized workers would be beneficial." ■

Correction

An incorrect dosage formula was listed in the "Pediatric Worksheet" form inserted in the April 2003 issue of *ED Nursing.* Under the "Emergency Drugs" section, the correct Phenobarbital Loading Dosage is 10-20 mg/kg. ■

COMING IN FUTURE MONTHS

- Assessing mental status of elderly patients
- Strategies for pediatric pain management
- Make documentation easier for inpatient holds
- Effective ways to improve infection control

CE instructions

Nurses participate in this continuing education program by reading the article, using the provided references for further research, and studying the questions at the end of the article. 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. This is the last month of the semester. **After completing this semester's activity, you must complete the evaluation form provided and return it in the enclosed reply envelope 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 *"Painkiller overdoses are rising dramatically* and *Is your care of pediatric poisonings outdated?"* in this issue.)
- Describe how those issues affect nursing service delivery. (See *"Do you know how to de-escalate children?"*)
- Cite practical solutions to problems and integrate information into the ED nurse's daily practices, according to advice from nationally recognized experts. (See *"Journal Review*.")

21. Which is recommended regarding care of children with psychiatric emergencies, according to Richard Westgate, RN, manager of pediatric emergency services at Wellstar Health System?
A. Assume patients are not violent.
B. Make contracts with patients for short-term goals.
C. Restrain most children with psychiatric emergencies.
D. Intervene physically if verbal threats are made.

22. Which is true for narcotic analgesic overdoses, according to Allison A. Muller, PharmD, CSPI, clinical managing director for The Poison Control Center at The Children's Hospital of Philadelphia?
A. Patients are at risk for liver damage only if they are long-term abusers of narcotics.
B. Acetaminophen levels are useful for patients who are chronic abusers of narcotic analgesics.
C. If you use the antidote is naloxone, you should start with the lowest initial dose.
D. All narcotic analgesics are revealed on toxicology screens.

23. Which of the following is the most effective agent for the treatment of most ingested toxins, according to Laura M. Criddle, MS, RN, CS, CEN, CCRN, CNRN, emergency, trauma, and neurological clinical nurse specialist at Oregon Health and Sciences University in Portland?
A. Syrup of ipecac
B. Gastric lavage
C. Activated charcoal for all ingestions
D. Activated charcoal, except for alcohol, iron, heavy metal, acid, or alkali ingestions

24. Which of the following is true regarding work stress in ED nurses, according to a study published in *Journal of Emergency Nursing*?
A. Most nurses said they received adequate support from hospital administrators.
B. Many nurses sought outside help after a traumatic incident.
C. Nurses who attended debriefing programs reported less interpersonal conflict.
D. Supportive social relationships had no impact on interpersonal conflict.

Answers: 21. B; 22. C. 23. D; 24. C.