

# High Risk of Burns Underappreciated in Elderly

BY JEFF EVANS  
Senior Writer

LOUISVILLE, KY. — The high rate of serious burns among adults older than 65 years suggests a need for greater patient education and prevention programs for this age group, Dr. Palmer Q. Bessey reported at the annual meeting of the Central Surgical Association.

Physicians and parents know that children are at risk for burns, several members of the audience said. But older adults appear to be equally vulnerable to burn injuries requiring hospitalization.

Dr. Bessey gathered discharge diagnoses reported by all hospitals in California, Florida, New Jersey, and New York for patients with ICD-9-CM (International Classification of Diseases, 9th Revision, Clinical Modification) diagnostic codes for burns during 2000-2004. The number of burns requiring hospitalization by state were as follows: 24,925 (California), 18,872 (New York), 12,445 (Florida), and 5,742 (New Jersey).

Except for the very young, the hospitalization rate for burns increased with age. This situation is different from other forms of trauma, in which the peak rate of hospitalization is in the late teens and early 20s, said Dr. Bessey, professor of surgery at Weill Cornell Medical College, New York.

Serious burns occurred in children aged

0-4 years at an incidence of more than 350 per million people. Adults aged 85 years or older also had an incidence of serious burns of more than 350 per million, while those aged 75-84 years had an incidence of just under 250 per million.

Burns comprise no more than 4% of emergency department visits. But the case fatality rate rivals that of motor vehicle

crashes and consumes large amounts of health care resources, because burn patients require the longest hospital length of stay of all injuries reported in the National Trauma Data Bank, Dr. Bessey noted.

In the subset of patients for whom data on the type and extent of burn injury were available, more than half of the discharge diagnoses were for scalding

burns and one-third were for flame burns, he reported.

Most burns occupied a small fraction of total body surface area: About 75% of burns occupied 0%-9% of total body surface area, while 15% of burns cover 10%-19% of total body surface area and 10% cover 20% or greater total body surface area.

Scalding burns occurred in significantly more children under age 15 than adults aged 65 or older (63% vs. 38%). But flame or inhalation burns were nearly three times as likely to occur in older adults as in children. Older adults also had more than twice the risk of receiving large burns, compared with children.

Older adults could be at high risk for burns because of their failure to respond to a fire or burn hazard. They may be less able to move out of the way quickly if water suddenly becomes very hot in the shower or if hot water is spilled, Dr. Bessey said.

Prevention programs could target potential hazards such as old hot-water heaters, which may be present in the homes of older adults who have lived in one place for a long time, he said.

Although burn prevention has usually been the domain of pediatricians, an education campaign among physicians such as internists or geriatricians would be worthwhile, Dr. Bessey said. ■



Prevention efforts and educational programs directed toward physicians and the public are needed, in order to reduce serious burn injuries in elderly persons.

CRAIG REINKER

## Quick 8-Point Assessment Protects Elderly Hospitalized Patients

BY CHRISTINA CHASE  
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PHILADELPHIA — Eight basic rules for making the rounds on older, hospitalized patients can help identify problems that the house staff may not focus on, Dr. Evelyn C. Granieri said at the annual meeting of the American College of Physicians.

It takes only 10 minutes to complete all eight assessments, said Dr. Granieri, a geriatrician at Columbia University, New York, who said she has been doing inpatient rounds almost daily for 17 years.

The eight rules are as follows:

**1. Review all medications.** Do this every day you visit the patient. Consider how changes in body weight and renal function may affect the appropriate dosage. "Older adults in the hospital are very dynamic in terms of their status," she noted.

Also, keep in mind that medication changes are a major precipitant of delirium in older adults. On average, patients come into the hospital on about eight drugs and leave on about nine, but five of those medications are new, Dr. Granieri said.

The rate of cognitive impairment in hospitalized elderly over age 70 is as high as 75%, and so the discharge plan for medications needs to be "as simple as possible," she said. Complex drug regimens are bound to fail, and may even precipitate an emergency department visit or rehospitalization. "Don't send patients home on b.i.d., t.i.d., and q.i.d. regimens. Try and do a q.d. or b.i.d. at the very most. This is very important," she advised.

**2. Perform a cognitive assessment.** The best screening test is simply asking the patient to draw a clock showing a specific time. Give the instructions just once, and be ruthless in judging the results: "It's either right or it's wrong," Dr. Granieri said. She related the story of a patient, who happened to be a practicing physician in his 70s, who drew and numbered the clock correctly but then added three hands pointing at 2, 4, and 5 and circled those

numbers to indicate 2:45. As a physician, she said, "he had perfected the art of being vague."

The clock test is a good early screen, but "it's not a diagnostic, it's an unmasking tool," she noted. It's critical to unmask the impairment because a patient who can't draw a clock won't be able to take medications correctly or drive a car.

**3. Look for pressure ulcers.** Check the skin daily because a pressure ulcer can develop in as little as 2 hours. With the current shortage of hands-on nursing care, doing this screen faithfully has become even more crucial. On admission, 2%-10% of patients have pressure ulcers, but 10%-20% have them on discharge, she noted.

**4. Check functional status.** "One of the first things that I now do on frailer people, or people over the age of 75," is immediately get a physical therapy and occupational therapy consult. This guarantees that the patient will get out of bed and be checked for ambulation. Also, the therapists often notice skin breakdown, incontinence, and inability to follow directions.

In bedridden patients, significant loss of muscle mass starts after 3 days, but it takes 9-12 days to begin rebuilding muscle with help from physical therapy.

But even without a consult, "you can look at them and see. You can tell if someone is getting out of bed. You can ask them to swing their legs around and stand," she said.

**5. Assess for gait dysfunction and fall risk.** "It's incredible that many patients are discharged from the hospital without any test of their gait and ambulation," Dr. Granieri said.

To prevent falls in the hospital, get rid of the Foley or Texas catheter. These are seldom needed but often overused, potentially causing falls as well as increasing the risk of urinary tract infections and resistant bacteria.

Little can be done to prevent falls in the hospital. "At the risk of sounding pessimistic, it's tough—there's no good answer." A few environmental changes may help: Make sure that the beds are lowered, that there's enough light, and that each patient has a bedside commode.

**6. Determine if your patient is eating and drinking.** If a patient comes in malnourished, this can't be cured during a 5-day hospital stay. But during rounds, be sure the patient's food tray is close enough to reach, use a feeding program if available at the hospital, and check swallowing ability at least once (or be sure the nurse checks).

"Aspiration pneumonia—especially for people who are hospitalized who may be delirious or [have] cognitive impairment or infections—is deadly," she noted.

Calorie counts are a waste of time, said Dr. Granieri, who used to be a dietitian and did many such counts herself. "If you think your patient is malnourished and they've lost weight, [they have]. Get them to eat by any means possible."

For those who won't or can't eat, don't use tube feedings, she advised, "unless it's time limited, or unless they have only one organ system that's problematic."

"Tube feedings in people with dementia do not keep them alive longer," but do increase complications. And studies have shown that people at the end of life don't feel hunger and thirst. "Once someone stops eating, that's it," she said. It's important to talk with families early about the issue of tube feedings, she added.

**7. Be sure patients have their glasses, hearing aids, and walking devices.** If a patient isn't wearing glasses, chances are they're somewhere such as in a drawer, since almost all older people have visual impairment. A patient who uses a walker at home should have one in the hospital.

**8. Use the team of clinicians available to you.** Get consults, especially for home care. Take advantage of available services, such as physical therapy and nutrition services. Don't take care of a frail older patient alone, she emphasized.

Finally, keep in mind that all eight of these issues are interconnected. A patient with cognitive impairment cannot manage a complex medication schedule after discharge, and a patient who can't reach his glasses might not eat his meals. "Think in a matrix way, as opposed to a linear, or algorithmic, way," Dr. Granieri advised. ■