Injured Children Fare Better at Specialized Centers

Investigator calls for greater effort to triage most severely injured children to pediatric trauma centers.

BY JANE SALODOF MACNEIL
Southwest Bureau

PHOENIX — Pediatric trauma patients are not usually brought to pediatric trauma centers and receive less than optimal treatment as a result, according to two studies presented at the annual meeting of the American Pediatric Surgical Association.

John C. Densmore, M.D., and his colleagues analyzed nearly 80,000 pediatric trauma cases from the year 2000 in the 27-state Kids' Inpatient Database maintained by the Agency for Healthcare Research and Quality.

Nearly 90% were treated at adult hospitals, reported Dr. Densmore of the Children's Hospital of Wisconsin in Milwaukee. The 10.7% treated at children's hospitals had significantly better mortality rates, length of stay, and charges.

Mortality rates ranged from 0.9% in children's hospitals to 1.4% in adult hospitals and 2.4% in children's units within adult hospitals. Length of stay greater than the 90th percentile occurred least often in the children's hospitals (8.9%), somewhat more often in adult hospitals (9.7%), and most often in children's units (17.2%). Charges greater than the 50th percentile followed the same pattern: 20.2%, 22.2%, and 32.4%, respectively.

A larger proportion (26.8%) of children ages 0-10 years with injury severity scores greater than 15 were treated at children's hospitals. Subgroup analysis revealed that their mortality rate, length of stay, and charges were higher, but they also fared better in children's hospitals, compared with the adult centers. "The youngest and most severely injured subgroup shows the largest disparity in outcomes among sites," Dr. Densmore said.

In the second study, Steven Stylianos, M.D., and his colleagues identified 3,232 children with spleen injuries in health department data sets from California, Florida, New Jersey, and New York for 2000-2002.

Dr. Stylianos, who conducted the study while at the Children's Hospital of New York in New York City, said spleen injuries follow a predictable course. Yet he reported that the odds of splenectomy varied widely based on who treated the child and where care was given.

Nontrauma centers were significantly more likely to perform surgery, with an 18.8% rate of operation, compared with 12.2% in trauma centers; the adjusted odds ratio was 2.12. The adjusted odds ratios for splenectomy were also higher for general hospitals vs. children's hospitals (2.8), general surgeons vs. pediatric surgeons (4.1), and adult or nontrauma centers vs. pediatric trauma centers (6.2).

Nearly half the children were treated in nontrauma centers. For children with multiple injuries, the rates of splenectomy were 15.3% in trauma centers and 19.3% in nontrauma centers. When the injury was isolated, 9.2% of children in trauma centers and 18.5% in nontrauma centers underwent splenectomy.

Pediatric trauma patients treated at children's hospitals had significantly lower mortality rates, lengths of stay, and charges.

Dr. Stylianos, now at Miami Children's Hospital, said the consensus guidelines and benchmarks of the American Pediatric Surgical Association recommended splenectomy for 10%-17% of the patients with multiple injuries, 0%-3% with isolated injuries, and 5%-10% of the total population. "I think this is an unacceptable risk of splenectomy that the children of America are being subjected to," he said.

Both investigators noted that there are not enough children's hospitals or pediatric surgeons to serve all sick and injured children. Dr. Stylianos urged pediatric surgeons to do more to disseminate the American Pediatric Surgical Association's consensus guidelines and benchmarks for treatment of pediatric spleen injury to both trauma and nontrauma centers.

"Pediatric surgeons and pediatric trauma centers treat the minority of patients," he said. "State [and] regional trauma systems may be the most practical and effective targets for dissemination of benchmarks."

Dr. Densmore called for greater efforts to triage severely injured children to children's hospitals. His study found pediatric trauma patients in the children's units had higher injury severity scores on average than those in the children's hospitals or adult hospital care. The researchers noted they corrected for injury severity in outcome measures.

"Outcomes data like these should be taken into consideration when we think about where to build children's hospitals and how to refer appropriately injured children to that facility," Dr. Densmore said in an interview at the meeting. "Right now there are state-based systems, and there needs to be perhaps a more national view on how we triage and care for injured children." ■

Emergency Departments Face Shortage of Specialty Care

BY MARY ELLEN SCHNEIDER
Senior Writer

Most hospital officials are having trouble getting specialists to take emergency department call, according to a national survey of physician executives.

About 64% of physician executives surveyed reported having a problem getting specialists to take call at their hospitals. Many of them—about 47%—report that their hospitals are coping with this problem by paying specialists to take call. Of those whose hospitals were not offering payments, 46% said the idea has been considered.

The survey, conducted by the American College of Physician Executives, was sent to 3,000 physician executives in hospitals and group practices around the country. The poll had 814 responses, or a 27% response rate.

The results of the survey are consistent with previous studies over the last several years, said Alex Valadka, M.D., chairman of the Joint Section of Neurotrauma and Critical Care for the American Association of Neurological Surgeons (AANS) and the Congress of Neurological Surgeons.

Dr. Valadka said he sees taking emergency call as part of his responsibility as a physician, but said many of his colleagues just can't afford to do it anymore.

With the high cost of professional liability insurance, some neurosurgeons are stopping or cutting back on emergency call because certain insurance carriers offer discounts to physicians who do so, he said.

In the past, physicians may have had enough of a profit margin to cover the cost of taking emergency call, he said, but declining reimbursements have mostly eliminated that margin.

"Nothing is for free," said Dr. Valadka, who also is a professor of neurosurgery at Baylor College of Medicine in Houston.

But even with stipends for taking call, some neurosurgeons still won't do it, he said. "I think the money will help, but it's not going to solve all the problems."

These financial incentives need to be coupled with federal medical liability reform to ease the strain of the high cost of premiums, Dr. Valadka said.

Paying specialists to take call helps to offset their costs, but it's only a stopgap solution, said James Bean, M.D., AANS treasurer and a neurosurgeon in private practice in Lexington, Ky.

In the short term, hospitals should create more incentives for physicians to take call. "You've got to create a carrot, not a stick," Dr. Bean said.

Over the long term, physicians and hospitals should consider the idea of a regional trauma system with a large staff of rotating specialists to handle cases.

"Clearly the community needs physicians to take call," said Andrew Pollak, M.D., associate professor of orthopedics at the University of Maryland in Baltimore and a member of the board of directors of the American Academy of Orthopaedic Surgeons.

Hospitals and physicians need to work together to provide reasonable ways to manage call, he said. For example, hospitals should provide stipends to help offset physician costs. In addition, hospitals need to provide physicians with the right resources to work in the emergency department, such as having an adequate level of ancillary staff to assist physicians, Dr. Pollak said.

Emergency physicians have a different take on the issue, however. It's often the hospitals with the highest number of uninsured patients that face shortages in specialist care in the emergency department, said Wesley Fields, M.D., immediate past president of the California chapter of the American College of Emergency Physicians and an emergency physician in Laguna Hills, Calif. But those are also the hospitals that are least able to provide stipends to physicians.

"This really just reflects the weakness of the hospital safety net," Dr. Fields said.

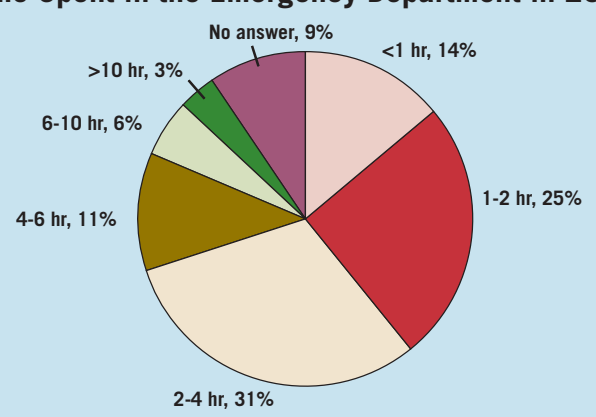
And money diverted to pay for physician stipends often means that less money is available to cover emergency department costs, he said. This worsens the burden on emergency medical groups, Dr. Fields said.

Paying stipends to physicians to take emergency department call is taking away from other services and the funding for uncompensated care, said Jeff Micklos, general counsel for the Federation of American Hospitals.

The federation is concerned that more hospitals will need to offer stipends for taking call, Mr. Micklos added. Otherwise, they will be creating an incentive for physicians to invest in local specialty hospitals. ■

DATA WATCH

Time Spent in the Emergency Department in 2003



Notes: Based on an estimated 114 million visits to emergency departments.
Percentages do not equal 100% because of rounding.
Source: Centers for Disease Control and Prevention

KEVIN FOLEY, RESEARCH