PATIENT SAFETY ALERT™

A quarterly supplement on best practices in safe patient care

Pediatrics program just the beginning of safety overhaul

Adverse events at Duke University triggered response from CMS

Duke University Health System, in Durham, NC, is taking the opportunity to learn from the errors that may have led to several recent adverse events in its pediatrics department and to use those lessons learned to improve patient safety across the system. Following a well-publicized error on a transplant case in February 2003 and two recent burn incidents involving children, Duke University Hospital is instituting widespread patient safety changes, beginning with its pediatrics department.

The Centers for Medicare & Medicaid Services (CMS) initiated a review involving Duke University Hospital on Sept. 4, after the hospital self-reported an incident in which a premature infant received a burn from heated air in an incubator in its intensive care nursery.

The infant is no longer at Duke and has a favorable prognosis, Duke officials report. CMS directed Duke to make patient safety changes following the Aug. 31 incident. By accepting the plan, CMS continues the hospital's participation in the Medicare and Medicaid programs, pending a regulatory follow-up visit.

This arrangement is in itself unique, noted CMS administrator **Tom Scully** in an announcement released by Duke. "Traditionally, CMS would be issuing notices proposing to revoke Duke's hospital certification, Duke would appeal, and a long, cumbersome process would begin," he said. "Instead, we have avoided that normal bureaucratic dance and engaged in a real workout plan with Duke. This will more quickly improve patient safety — and result in real change at Duke Hospital, which is what this is all about."

This latest incident followed two other reported cases at the hospital involving children this year, including a heart/lung transplant case in February and an accidental flash fire in the pediatric intensive care unit in June that resulted in burns to a child. Duke University Health System president and CEO **Ralph Snyderman**, MD, notes that while the incidents were in different units of the hospital, they all involved children, and together, "they inevitably raise concerns about whether we have a systemic problem."

Accordingly, Duke's response ultimately will include several initiatives, including the first comprehensive review of all pediatric care services at Duke University Medical Center and the development of a new model for monitoring patient safety programs.

"Any performance improvement effort — whether directly related to patient safety or otherwise — needs to be monitored for effectiveness to make sure you fix what you think you're fixing," explains **Gail Shulbey**, MA, RN, patient safety officer for Duke University Hospital. "We also intend to make sure that the lessons learned [in pediatrics] are shared broadly throughout our organization. We will start with pediatrics and then expand to other areas."

Shulbey is the first patient safety officer for Duke Hospital; although appointed in January of 2002, she has been at Duke for 23 years. The health system also has created another new position and is aggressively recruiting for a physician to oversee patient safety across the entire system.

In the summer of 2003, an interdisciplinary team began work on the pilot pediatrics program. Duke Hospital is divided into business lines, or clinical service units, she explains. "One of those is dedicated to children. Within that line, we have a patient safety team that developed the

approach — it consisted of nursing, administration, physicians, pharmacists, and others."

A good deal of initial thoughtful discussion was involved, says Shulbey. "We tried to do a literature search and go down the avenues of proven winners, but I've got to say there's not a whole lot out there. Everybody is still in a learning mode, and we are no different."

Given the lack of formal evidence-based research, the staff began reflecting on its own experiences, she adds. "We did a lot of talking about past lessons learned. We asked, 'What did we miss here?' Then, we sought to structure processes in a way that we would not to miss those things again in the future."

Shulbey says the team is looking at actually doing risk assessments for all bedside procedures, identifying potential failure modes through failure mode analysis, and determining what can be done to avoid those failure modes in the future. These lessons learned will then be used to examine other clinical areas.

"The next step is to look at a given procedure that contained a failure mode and ask where else it is done," she explains. "For example, is it done on adults, too? We'll look for areas where there might be similar 'wins,' as well as areas that might need similar fixes. In other words, we will try as much as possible to capitalize on what appears to be a small area, and share with our sister organizations — and hopefully share with others through professional publications."

The undertaking, at first glance, appears overwhelming, Shulbey admits. "There are an infinite number of procedures. Some things are done once every blue moon, and some we do daily. This is a tough nut to crack, especially in an academic setting." So how does she propose to crack that nut? she asks. "We have to go about it step by step. We have to be patient, to recognize the enormity of our staff, and try to bite off those pieces we can chew, while at the same time not being afraid to look at anything."

The pilot program began in September with the team looking at invasive procedures and pediatric intensive care areas. "I can't say there have been any 'Aha!' moments," Shulbey says. "The biggest thing we need to think about is where, outside of these dedicated areas, are children receiving care? For example, how do we watch what's going on in radiology with children? What are the quality indicators we need to monitor there?"

The pilot program could go on indefinitely, given the large number of procedures involved, she notes. Of course, the system won't benefit until findings are shared. "I would guess it will be a good two to three more months before we do that," she predicts. "We don't want to share before we've got it right in terms of methodology and the actual opportunities for failure that we identify." ■

Duke identifies corrective plan of action for patient safety

In a letter to CMS dated Sept. 21, 2003, **William J. Fulkerson**, MD, chief executive officer of the Duke University Health System, outlined Duke's corrective plan of action for improving patient safety. The following enumerates actions Duke's leaders "are taking or have taken:

- ✔ "Duke Hospital's chief operating officer is being assigned to intensively review all aspects of nursing services, clinical engineering, and other operations that have been identified in recent incidents at Duke Hospital. He will be free — indeed is being encouraged — to investigate any area(s) that he believes might pose a safety problem and implement necessary changes in these operations.
- ✔ "We have established a Pediatric Safety Center. Dr. Karen Frush, MD, medical director for children's services, will lead the center which will carry out a comprehensive review of all pediatric care services delivered across Duke University Hospital. She has full authority to take any steps she and her team deem necessary to protect the safety of our pediatric patients. Dr. Marlene Miller, MD, who has earned a national reputation in the field of quality and safety initiatives at the Johns Hopkins Children's Center, will serve as consultant to Dr. Frush and her team.
- ✔ "Looking beyond the care of children and Duke University Hospital specifically, we have established and are currently recruiting a patient safety officer to oversee care across the entire Duke University Health System. This is a new position which will report directly to the Patient Safety and Quality Assurance Committee of the Health System Board of Directors and to the President and CEO of the Health System.
- ✔ "The Health System Board of Directors will invite outside experts to serve on its Patient Safety and Quality Assurance Committee. Joe and Terry Graedon, the syndicated columnists who host "The People's Pharmacy" on National Public Radio and are well known for their advocacy of patient safety, already have agreed to serve on this important committee." ■