

Safeguarding Healthcare Delivery for Children during Disasters

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Abstract

Dedicated in 1953, Texas Children's Hospital has become the largest primary pediatric care network in the country, which operates 650 licensed beds at three freestanding hospitals. Texas Children's has the world's largest Neonatal Intensive Care Unit (NICU), which offers the highest Level IV NICU care. Additionally, as one of only two Level I pediatric trauma centers and tertiary pediatric referral centers in the Gulf Coast region, effective emergency management planning is essential to safeguard specialized healthcare delivery for children and women before, during and after disasters.

Introduction

Located on the Main Campus of Texas Medical Center is the original Texas Children's Hospital and the Texas Children's Pavilion for Women. Texas Children's Hospital West Campus is located near Katy. An additional suburban hospital in The Woodlands will open in 2017. Texas Children's is one of 137 hospitals in the SouthEast Texas Regional Advisory Council's (SETRAC) Catastrophic Medical Operations Center's (CMOC) Region, covering 25 counties with 7.1 million residents. These hospitals are further divided into corridors (North, East, South, West and Central) where Texas Children's participates with the Central and West corridors.

Unique Healthcare Capabilities

Consistently ranked among the top children's hospitals in the nation by the U.S. News and World Report, Texas Children's has recognized Centers of Excellence in multiple pediatric subspecialties and treats the most critically ill and fragile children from near and far. This year, Texas Children's is ranked 4th among 183 children's hospitals. In fiscal year 2013, Texas Children's performed 26,000 surgeries, and had 117,000 emergency center visits, 3.2 million patient encounters, and 5,000 births. Texas Children's is affiliated with Baylor College of Medicine, one of the largest, most diverse and successful pediatric programs in the nation.

Emergency Management Partnerships

Texas Children's has enhanced its emergency management planning through strong partnerships with local healthcare coalitions and regional emergency preparedness agencies. Texas Children's was the sixth member institution to join Texas Medical Center (TMC) in 1951. Texas Children's is an active member of the SETRAC Regional Healthcare Preparedness Coalition (RHPC). Texas Children's participates in staffing rotations of the Central and West Corridors for the CMOC at the Houston Emergency Center during disasters and exercises. Texas Children's is a participating hospital in the National Disaster Management System (NDMS), the

Radiation Injury Treatment Network, and the Centers for Disease Control and Prevention's ChemPack Program. Texas Children's is a designated sentinel surveillance facility by the City of Houston Department of Health and Human Services and also participates in preparedness activities with Harris County Public Health and Environmental Services.

Regional Preparedness Exercises and Trainings

Texas Children's has participated in several regional mass fatality and pandemic influenza planning workshops. Other recent training and exercises include: (a) Operation Morning Star mass casualty exercise, (b) Radiation Injury Treatment Network tabletop, (c) Regional Allocation, Distribution, and Dispensing (RADD) functional exercise, (d) Operation Whirlwind hurricane exercise, and (e) Texas Medical Center Pandemic Influenza Preparedness and Response Guide development.

Internal Training, Exercises and Planning

Throughout the year, internal trainings and exercises are conducted with after-action reporting to keep staff ready for response. Some examples include: (a) Decontamination Tent Walk-Through, (b) Mass Casualty Exercises, (c) Vertical Evacuation of Rehabilitation Unit, (d) Incident Command System Roles, and (e) Communications Aides' training. Ongoing planning is continual through multiple initiatives. An Emergency Management Committee with hospital stakeholders meets monthly to review incidents and plans. An annual Employee Emergency Preparedness fair is held in May. Annual Hazard Vulnerability Assessments are conducted to identify and rank hazards for each campus. A Ham Radio Club provides operators for emergency communications. All employees are required to enroll on a team on the online Employee Disaster Roster. The Emergency Response and Recovery Portal is a one-stop shop for forms and document sharing. Texas Children's is in the TMC Flood Management Group, closing flood doors according to plan during rain events. A High Census Management Team is addressing the annual influx of patients due to influenza and Respiratory Syncytial Virus (RSV).

Lessons Learned and Recovery at Texas Children's

Texas Children's all hazards plans are updated based on guidance and lessons learned from events. During Tropical Storm Allison in 2001, Texas Children's had significant losses of equipment, pharmaceuticals and medical records due to basement flooding. During Hurricane Katrina's patient influx in 2005, the Texas Children's Kangaroo Crew transported 33 children from Louisiana via aircraft, while physicians filled 160 shifts at the Reliant Stadium shelter and clinic. The hospital stayed operational throughout Hurricane Ike in 2008, with 4,000 employees on ride-out and relief duty. Texas Children's experienced the first pediatric death in the U.S. from H1N1 in 2009 and an outdoor triage center was established to screen children.

Conclusion

The 10,000 employees of Texas Children's Hospital are committed to maintaining a very strong emergency management program to ensure safeguarding healthcare delivery for children during disasters!