RURAL HOSPITAL’S RESPONSE TO CHILDREN INVOLVED IN NATURAL AND MANMADE DISASTERS

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OBJECTIVES

1. Define disaster for a rural area.
2. Discuss lessons learned during natural disaster events.
3. Discuss lessons learned during manmade disaster events.
4. Describe commonalities in all disasters.
How do you define a disaster?

A disaster is a situation that overwhelms your facility
Upon word of hurricane approaching, command center established

Pediatric transfers began – neonatal ICU, PICU

Discharges began

Extra supplies brought in
County Judge issued mandatory evacuation – state immediately takes over with an air evacuation due to Hurricane Katrina prior month

Staff began making arrangements of transporting critical patients first by air and ground

Staff traveled to airport with patients to airport via buses

Airport became military operation
120 mph winds began from midnight to late morning

By 0230, solely on generators with no AC (in the south!)

Debris began breaking windows – brought patients into hallways

City water failed

Floors wet from rain blowing in and heat index 100+

Had 130 patients and 400 associates and physicians in-house
Sometimes you need to look at things from a different perspective.
LESSONS LEARNED

- Learn from other’s experiences
- Utilize the NIMS systems
- Establish transfer agreements early with hospitals that have capabilities for children
- Get the children out EARLY with family member/s if possible
- Make sure staff with children are pediatric trained (PALS, ENPC)
- Have pediatric specific equipment available with children
LESSONS LEARNED

- Know where your patients are finally transferred to – repatriation
- Don’t depend on other entities to evacuate your patients
- Place specialized evacuation arm bands with number to call when reach destination
- Send any medicines needed for children
LESSONS LEARNED

- Use state or some form of evacuation software if available
- Medicine tackle boxes with routine disaster orders for
  - Pain
  - Nausea
  - Breathing treatments
  - Sliding scale insulin
  - Asthma meds and nebulizers
LESSONS LEARNED

- Create specific instructions for the disaster supplies / medicines
- In-service process
- Mental stress - Have pre-assigned disaster staff if able
- Work with other entities to create alternate care sites
**PEDIATRIC DISASTER BAGS**

- Glucoscan
- AED
- Broselow pre-filled modules of all colors
  - Intubation / airway / oxygen
  - IV catheters
- Hand held suction device / bulb syringe
- NG tube kit with NS bottles
PEDIATRIC DISASTER BAGS

- Tape
- Gauze / ABD pads
- IV fluids
- IV catheters with microdrip and buretrol tubing
- Emesis bags and basins
- Gowns / Blankets
- Formula
- Diapers
- Washcloths / Towels
- Baby Wipes
CHRISTUS Hospital - St. Elizabeth
CHRISTUS Hospital - St. Mary
CHRISTUS Jasper Memorial
Dubuis Bmt, TX  Kate Dishman Rehab (St. E)
Contact # 1-800-286-7025

EVACUATION FOLDER

PATIENT STICKER / IDENTIFICATION

or

PATIENT NAME: _______________________________

NEXT OF KIN: ______________________________ CONTACT PHONE #: __________________

MAKE COPIES OF RECENT / 24 HOURS:

☐ Face Sheet
☐ MAR
☐ Admitting History & Physical
☐ Consultation Notes
☐ Hand Off Communication
☐ Last Progress Notes
☐ Nursing Work Sheets
☐ Radiology Reports
☐ Lab
☐ EKG’s
☐ Physician Orders
☐ OP Reports

Primary Nurse______________________________
Manager Signature__________________________

Reorder #0099926  cat#46046  09/03
TRIUMPH OVER TRAGEDY
SARAH

- 17 YO evacuee from Hurricane Katrina. Sarah, mother and 11 YO brother are moving to Houston. She and her family are involved in a collision on IH 10 in Beaumont on Sept 21.
- Severe head injuries resulting in brain death on Sept 23
- Family knows Sarah wants to donate
- Meets criteria but hospital is evacuating
- ICU nurse works with OPO to have Sarah flown out to Baylor in Dallas — Southwest airlines provides small non-medical plane and pilot
Mother and son had to stay in hospital while Sarah left

Father stayed with wife and son

Oldest brother deployed in Iraq does make it in prior to Sarah being flown out

As the storm hit Beaumont, Sarah was able to save multiple lives with her heart, kidneys, liver, skin and tissues
WEST BROOK HIGH SCHOOL SOCCER TEAM ACCIDENT
MARCH 29, 2006

- Chartered bus carrying high school soccer team to play offs
- Rainy day – on a 2 lane rural road approx 40 minutes from Beaumont and further to Houston
- Driver eastbound lost a load of insulation from their trailer
- Westbound charter bus swerved to avoid the insulation and rolled
WESTBROOK HIGH SCHOOL SOCCER TEAM ACCIDENT
MARCH 29, 2006

- Total of 23 team members along with coaching staff
- 2 fatalities at the scene
- One girl with arm trapped under the bus
- One with traumatic amputation of arm
- One with large avulsion injury to the scalp and ear
- All to ED at same time
WEST BROOK HIGH SCHOOL SOCCER TEAM ACCIDENT

MARCH 29, 2006

- Pre-hospital report is called with incoming injuries
- Stress level of staff is heightened – small community
- Internal disaster is activated
- Multiple physicians appear
- OR rooms are cleared
- ICU beds are triaged
WESTBROOK HIGH SCHOOL SOCCER TEAM ACCIDENT
MARCH 29, 2006

- All trauma surgeons are brought in for backup
- Trauma orthopedist comes in
- Command center is activated
- Dining rooms become family holding
- Media is sequestered in another room but not by family
- Blood bank notified
Ashley Brown & Alicia Bonura
NEVER TO BE FORGOTTEN
AB²
Proverbs 17:17
LESSONS LEARNED

- The PIO is an important asset during a community disaster
- Keep families informed
- Keep families cared for
- Spiritual care / school counselors
- Critical stress debriefing
- Crowd control away from ED
- Use media to your advantage
LESSONS LEARNED

- Practice disaster drills early
- Have someone in control – use NIMS model
- Recognize volunteers strengths – even physicians
CREATE POSITIVITY OUT OF DARKNESS

Families united and created the West Brook Bus Crash Families Texas Chapter of the National Coalition for School Bus Safety

Lobbied to create legislation to put seatbelts in charter buses and school buses
West Brook soccer team back on the field
10:15: EMS and Fire were dispatched to Middle School for an unconscious. It was reported a six grader may be having some type of seizure activity and is in Nurse’s Office.

10:20: EMS arrived on scene, 2 adults and 1 student were at the entrance complaining of nausea/headache

10:25: Engine company reported elevated CO reading

10:27: evacuation began, all occupants moved to Gym, once it was determined “safe.”
Students/faculty were triaged and approximately 400 asymptomatic students/faculty were transported to High School for re-unification.

179 symptomatic students/faculty were moved into the Science Building where secondary triage were performed and treatment initiated.

A total of 69 students/faculty were transported to local hospitals from this incident by responding units.
PERSPECTIVE
HOSPITAL RESPONSE

- Received notification at 1020
- Did not receive first patient till 1147
- ED was totally full
- Called internal disaster at 1200
- Received only 4 patients at beginning
Utilized one room with 4 beds: took beds out and put chairs in

Utilized psych rooms

Saw a total of 65 patients – all patients out within 4 hours

Did venous CO levels on patients versus ABG

Rotated kids from ED to PACU

Kept kids 2-3 hours for repeat CO level if needed
LESSONS LEARNED

- Not enough oxygen tanks
- Bought oxygen manifolds
- At what point do you call an internal disaster?
- One person in charge
- Keep track of patients – use radios / have a float person
LESSONS LEARNED

- Have someone for the parents – spiritual care / social worker
- Have a separate person for media
- Think out of the box
TRACK TEAM BUS ACCIDENT
Track team from one small town going to a meet at another small town

Had been flooding in our area- bus lost control and flipped several times

30 students, 2 coaches and driver
- Received call at 1515 EMS responding to major incident with multiple EMS and helicopters
- Not sure how many patients will receive
- 1600 received 2 patients flown in
- 1630 received 14 additional patients
Minor injuries – lacerations, contusions, abrasions

Received 4 patients as transfers around 2000 (admitted)

All patients were cleared off back boards and collars and discharged by 2200 (minor injuries)
LESSONS LEARNED

- Create MD / NP / Nurse teams to clear off backboards and C collars
- Call internal disaster if need to
- If you have a pedi unit – let them take teenagers
- Accident victims like to be together
DAISY TEAM AWARD
FOR EXTRAORDINARY NURSING TEAMS

Presented in deep appreciation of all you do, who you are, and the incredibly meaningful difference your teamwork makes in the lives of so many people.

The DAISY FOUNDATION
IN MEMORY OF J. PATRICK BARNES
LESSONS LEARNED FOR ALL DISASTERS

- NIMS system
- One person has to be in control
- After action reviews to discuss better ways to deliver care
- THERE IS NO DISASTER DRILL THAT WILL COVER ALL DISASTERS
- Incident stress debriefing
- Celebrate the wins
COMMON LESSONS

- Keep track of your patients – large numbers can get overwhelming
- Use paper charting if need to
- Have redundant back up systems
- Take care of yourself and staff

- Media control – one person
- Parent support
- Celebrate the wins!!
- Define what disaster means for your facility