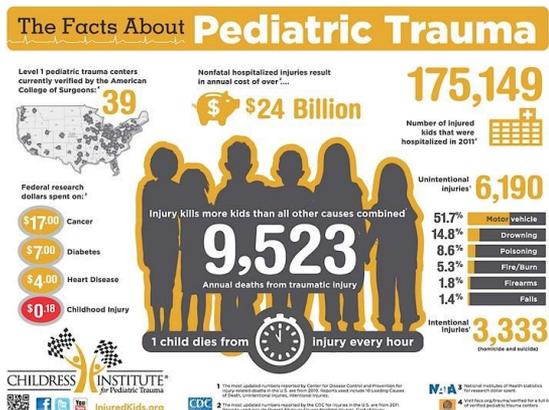


Pediatric Trauma Care

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Level 1-4 Adult Trauma Centers



U Penn's National Trauma Center Maps

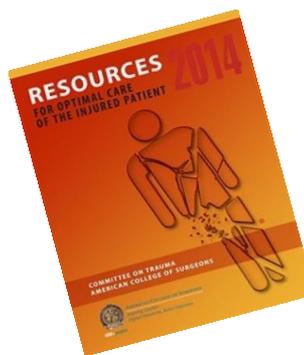
Level 1-2 Pediatric Trauma Center



U Penn's National Trauma Center Maps



Differences in mechanisms and patterns of injury result in the need for a unique response to pediatric trauma, and the need for specialized pediatric resources



What is required



- Committed TMD and Trauma Team
 - Can be fulfilled by Adult trauma Surgeons
- Trauma Service trained and credentialed to provide pediatric trauma care
 - CME, training/education
- Regional trauma system to integrate Children's Hospitals for the most critically injured patients
 - Referral pattern/transfer agreements for higher level of care if needed

- Assume a leadership role within respective local, regional and state systems
 - Accept transfers from non-pediatric trauma centers
 - Participate in regional injury prevention
 - Participate in regional outreach/education
- Performance Improvement
 - Pediatric process and outcome measures
 - NTDB
 - Pediatric TQIP

Volume Requirements

Level 1 (admit 200 or more kids per year younger than the age of 15)

Level II (admit 100 or more kids per year younger than the age of 15)



Physician resources:

Board Certified Pediatric Surgeons
 Level II PTC: Board Certified Specialists
 Level I PTC: Fellowship trained



Specialists:
 Orthopedics
 Neurosurgery
 Critical Care
 Emergency Medicine

- Active collaboration with Pediatric Specialists:
 - Involvement with Pediatric Critical Care (co-management) or Pediatricians
 - Pediatric Trauma Service still maintains oversight while in the PICU

What do we do for the small rural hospitals?





WASHINGTON (April 13, 2015) — Pediatric emergency care coordinators in the nation's emergency departments are strongly linked with improved readiness to care for children, according to a new study in JAMA Pediatrics. Nearly 50 percent of the nation's emergency departments have a physician or nurse dedicated to address staff training, equipment availability and policies for the care of children — a three-fold increase since 2003.



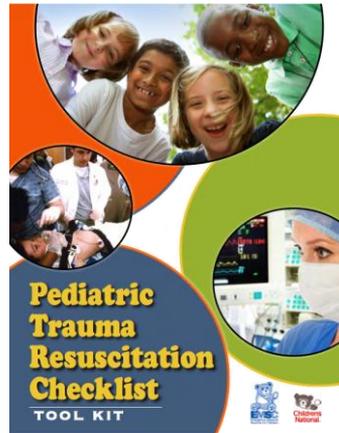
Areas for improvement:

Disaster Plans. Only 47 percent of respondents had a disaster plan that addresses issues specific to the care of children.

Equipment. At least 15 percent of emergency departments lacked one or more specific pieces of equipment as recommended by the 2009 guidelines, such as pediatric Magill forceps for removal of airway foreign bodies.

Guidelines Implementation. Nearly 81 percent of respondents reported barriers to guidelines implementation. The most frequent barriers reported were cost of training personnel (54 percent) and lack of educational resources (49 percent).

Marianne Gausche-Hill, MD, FACEP, FAAP, of the Biomedical Research Institute at Medical Center Los Angeles Harbor-UCLA



EMSC & Children's National

Figure 1: Checklist used during pre-implementation pediatric trauma resuscitations at Children's National Medical Center

Trauma Resuscitation Checklist		Items in the shaded boxes pertain to high-acuity patients — may be marked as N/A
Pre-arrival Plan <input type="checkbox"/> Introductions & confirm team roles <input type="checkbox"/> Brief team on incoming patient <input type="checkbox"/> Estimate weight: _____ kg <input type="checkbox"/> Oxygen connected to NRB <input type="checkbox"/> Suction hooked up <input type="checkbox"/> Trauma shears available <input type="checkbox"/> Hair hugger on bed <input type="checkbox"/> All meds removed from Pyxis For Attending activations: <input type="checkbox"/> N/A <input type="checkbox"/> Prepare intubation equipment <input type="checkbox"/> Order Code Orange blood <input type="checkbox"/> CPR board in room or on bed	Primary Survey A <input type="checkbox"/> Confirm airway is protected <input type="checkbox"/> Confirm C-spine is immobilized properly (manually or with collar) If intubating: <input type="checkbox"/> N/A <input type="checkbox"/> GCS assessed before giving RSI medications <input type="checkbox"/> Report ET tube size, depth, and color change <input type="checkbox"/> Confirm ETCO ₂ reading on monitor <input type="checkbox"/> Order chest x-ray for placement confirmation B <input type="checkbox"/> Confirm O ₂ placement C <input type="checkbox"/> Check distal pulses (then central, if needed) <input type="checkbox"/> Confirm N/PO access has been established <input type="checkbox"/> Give fluid bolus (NS/LR) or blood <input type="checkbox"/> N/A D <input type="checkbox"/> State GCS (eyes, verbal, motor) <input type="checkbox"/> State pupil size and response E <input type="checkbox"/> Completely remove patient's clothing <input type="checkbox"/> Cover patient with warm blanket <input type="checkbox"/> Take temperature VITALS State and evaluate whether logical and WNL for age: <input type="checkbox"/> Heart rate (with good waveform) <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Oxygen saturation <input type="checkbox"/> Blood pressure	Secondary Survey Evaluate and state findings: <input type="checkbox"/> Head <input type="checkbox"/> Ears <input type="checkbox"/> Ocular/periorbital integrity <input type="checkbox"/> Facial bones <input type="checkbox"/> Nose <input type="checkbox"/> Mouth <input type="checkbox"/> Neck <input type="checkbox"/> Chest <input type="checkbox"/> Abdomen <input type="checkbox"/> Pelvis <input type="checkbox"/> Lower extremities <input type="checkbox"/> Upper extremities <input type="checkbox"/> Log roll and back exam <input type="checkbox"/> C-spine exam
POST-PATIENT LABEL HERE	Departure Plan <input type="checkbox"/> Summarize 1 st and 2 nd survey findings <input type="checkbox"/> Brief team on plan of care and patient destination Prepare patient for travel: <input type="checkbox"/> N/A <input type="checkbox"/> Equipment <input type="checkbox"/> Medications <input type="checkbox"/> Identify who will travel with patient <input type="checkbox"/> Notify destination (OR, PICU, etc.)	

DO NOT ADD TO MEDICAL RECORD

Last Updated: APR/2012



Thank You

Jennifer Wobig & Cheryl Wraa

