rss session sign-in sheet

Pediatric Care ECHO Series
Preparing Pediatric Patients for Critical Care Transport
July 20, 2017
Thomas B. Branson, MD, MPH
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RSS Global Objectives:
- Assess pediatric trauma given the new skills and guidelines determined to be safe for children.
- Identify proper tool and standardized measurement practices to improve diagnosis and treatment of pediatric patients.

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Preparing Pediatric Patients for Critical Care Transport

Tom Brazelton, MD, MPH
Stu McVicar, RRT, NRP, FP-C
At some point in every physician’s career, he/she will be involved in the medical transport of a sick or injured patient.
Pediatric critical illness and injury: the impact on the region and our responsibility

- Primarily rural communities
- Emergency medical services (EMS) and the “rural paradox”
- Resources for children are scarce:
  - Pediatric training
  - Pediatric equipment
  - Children’s hospitals
- Pediatric response to illness and injury
- Provider anxiety
- Treat or transport?
How should the child be transported to the new facility?

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- **Mode**
  - Family car
  - Ground ambulance
  - Helicopter
  - Fixed-wing aircraft

- **Team**
  - Family
  - Local EMS
  - Referring hospital team
  - Regional transport team
  - Specialized pediatric transport team
Factors to consider when choosing a mode of transportation and team

1. Diagnosis and medical stability of the patient, including analysis of possible complications in his or her condition during the transport

2. Urgency to provide advanced medical care--include in the decision the time necessary to mobilize a medical team, estimated time of travel (both to and from) accounting for distance, terrain, weather and traffic

3. Level of medical care the patient is receiving versus the type of care the patient needs.

4. Methods of transport available
Goals of Transport

- To reach persons in need as quickly as possible with trained personnel
- To stabilize the patient’s condition to prevent further deterioration
- To move the patient to a facility capable of providing more extensive care or additional services that will enhance patient outcome
- To offer the level of care equal to the receiving institution recognizing the limits inherent to traveling.
CHETA and Med Flight

- Pediatric expertise readily available
- Complements Med Flight: “weatherproof”
- Provides multi-level response: frees up a scarce resource for those in need
- Neonatal and Pediatric Intensive Care Units on wheels or wings
- Triage system for AFCH ED, NICU, PICU & wards
- Preserves local EMS resources
- Relieves community provider anxiety
- Continuity of care
Indications for Emergency Transport of Pediatric Patients
(Johnson & Gonyea, Mayo Clin Proc, 1993; 68:982-987)

- Respiratory -- 30%
- Neurologic -- 22%
- Trauma
  - Head -- 7%
  - Other -- 11%
- Cardiovascular -- 6%
- Other -- 24%

Adults:
Cardiac and trauma

We don’t know what we’re going to find on arrival!
Why is CHETA worth the wait?

- EMTALA rules governing interfacility patient transfers requires patient receive level of care through transport
- Potential for acute deterioration en route: very high rate of unplanned events and major interventions (Singh, 2013)
- Outcomes of general CCT teams vs specialty teams (Orr, 2009): unplanned events (61% vs 1.5%) and eventual death (23% vs 9%)
- Not a ”load ‘n go” philosophy but not a “stay and play” one either
Assessment

Figure 1: Infant, Good First Impression
Healthy infant appears alert with good muscle tone
Figure 2: Infant, Poor First Impression
Sick infant with poor muscle tone, nasal flaring, retractions

Nasal Flaring

Retractions

Limbs Extended (poor muscle tone)

SUSAN GILBERT
Figure 3: Child, Good First Impression
Healthy child appears alert with good muscle tone
**Figure 4: Child, Poor First Impression**
Sick child with poor muscle tone, nasal flaring, retractions
There’s a fire?
Quick, grab the putter outer!
IT DOESN’T MATTER HOW MANY RESOURCES YOU HAVE
If you don’t know how to use them, it will never be enough.
When plan “A” doesn’t work, you have 25 more letters....
Ultimately, whatever airway you get, is the CORRECT one...
Case

Winter 2016, 1900-2300 hrs

2 m/o male in respiratory distress, 1 day hx of increased WOB, decreased PO

HR 180s, RR 50-60s, SaO2 94% on 2 lpm NC

Head-bobbing, grunting, nasal flaring, subcostal and sternal retractions

Attempted HFNC, CPAP, then capillary blood gas sent: 7.11/102/97

Patient intubated
Prehospital/EMS Survey

We value your input. Please take a moment to complete our short survey at:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-1

You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)

Receiving Facility Survey

We value your input. Please take a moment to complete our short survey at:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-3

You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)

Referring Facility Survey

We value your input. Please take a moment to complete our short survey at:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-2

You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)

Parent Survey

We value your input. Please take a moment to complete our short survey at:

Valoramos su entrada. Tóme por favor un momento de completar nuestra inspección corta en:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-5

Entre este código de dismiss: 34QBD4-5
You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)