

National Pediatric Nighttime Curriculum Written by Erin Augustine, MD Lucile Packard Children's Hospital at Stanford





## Case 1

- A 5 year old male is being transferred from an outside hospital with an asthma exacerbation. He will be a direct admit to your service.
  - What specific pieces of information would you want to know from the transferring physician?

## Case 2

- A 3 year old female presents with trouble breathing. She is tachypneic, grunting, flaring, and retracting. Her work of breathing mildly improves with oxygen by face mask. Transport to nearest PICU 10 miles away is recommended.
  - What type of transportation is indicated?
    - Basic Life Support (BLS) Ambulance
    - Advanced Life Support (ALS) Ambulance
    - Critical Care Transport
    - Air Transport

- To understand obligations of the Emergency Medical Treatment and Active Labor Act (EMTALA).
- To identify key pieces of information that need to be communicated when a patient is being transferred to another facility.
- To compare various patient transportation options and choose the most appropriate option.

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#### EMTALA

- Emergency Medical Treatment and Active Labor Act
- Enacted by Congress in 1986
- Passed because of concerns that emergency departments were refusing to treat or inappropriately transferring patients based on ability to pay ("patient dumping")

### EMTALA

#### EMTALA Obligations

- Hospitals must provide a medical screening exam to determine if an emergency medical condition exists.
- If an emergency medical condition exists, the patient must be treated and stabilized.
- If a hospital does not have the capability to treat the condition, an appropriate transfer to another hospital should be made.

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#### **Communicate Patient Information**

- Name, Age, Weight
- Medical Condition
- Pertinent Past Medical History & Medications
- Allergies
- Vital Signs (Including BP & O<sub>2</sub> Sat)
- Pertinent Physical Exam Findings
  - Mental Status
  - Airway Status
  - Perfusion Assessment
- Interventions Performed & Response to Therapy
- Condition Updates
- Send Copies of Notes, Labs, Imaging Studies

#### **Communicate Recommendations**

- Providing Advice IS Recommended
- Management
  - Airway Management
    - Oxygen
    - Intubation
  - IV Placement
  - Medication Administration
- Evaluation
  - Labs
  - Imaging
- Mode of Transportation

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#### **Transport Considerations**

Local Resources

- Staff Availability & Training
- Equipment
- Medications
- Distance of Transport
- Transport Availability
- Road Conditions & Weather

### **Transportation Options**

- Basic Life Support (BLS)
- Advanced Life Support (ALS)
- Critical Care
- Neonatal
- Air
  - Helicopter
  - Fixed-Wing Airplane

# Basic Life Support Transport

#### Team

- EMT-Basic
- Capabilities
  - Administer Oxygen
  - Administer IV Fluids
  - Immobilize
  - Administer Limited Selection of Medications
    - Albuterol, EpiPen, Oral Glucose
- Recommended if
  - Stable Patient
  - Immediate Transport Necessary ("Load & Go")

#### Advanced Life Support Transport

#### Team

- EMT-Paramedic
- Capabilities
  - Intubate
  - Obtain IV Access
  - Administer Oral & IV Medications
- Recommended if
  - Life-Threatening Condition
  - Altered Consciousness
  - Respiratory Distress

## **Critical Care Transport**

#### Team

- EMT or Special Care Transport Paramedic
- Critical Care Transport Nurse(s)
- +/- Respiratory Therapist
- +/- Physician
- Capabilities
  - Cardiac Monitoring
  - Vasoactive Medication Administration
  - Ventilatory Support

## Air Transport

- Recommended if
  - Long Distances
  - Poor Road Conditions or Weather
    - Weather May Restrict Helicopter Transport Too
  - Patient Requires Immediate Intervention
    - Hemorrhage

#### Air Transport Special Considerations

- Unable to "pull over" to work on patient
- Noise prohibits auscultation
- Pneumothorax
  - Low pressure at high altitude may lead to pneumothorax expansion.
  - Helicopter transport is acceptable because it flies at sea level.
  - Fixed-wing airplane transport is only acceptable if the cabin is pressurized to sea level.
  - Best to avoid high altitude for 6 weeks after pneumothorax resolution.

#### **Take Home Points**

- EMTALA ensures that patients with emergency medical conditions are treated regardless of ability to pay.
- Communication of specific patient details is essential for safe patient transfer.
- Knowledge of transportation options and capabilities optimizes safe patient transport.

#### References

- American College of Surgeons Committee on Trauma, American College of Emergency Physicians, National Association of EMS Physicians, Pediatric Equipment Guidelines Committee-Emergency Medical Services for Children (EMSC) Partnership for Children Stakeholder Group and American Academy of Pediatrics. Policy Statement – Equipment for Ambulances. *Pediatrics*. 2009. 124:e166-71.
- Baumann MH. Pneumothorax and Air Travel: Lessons Learned From a Bag of Chips. Chest. 2009. 136:655-6.
- Orr RA, Felmet KA, Han Y, McCloskey KA, Dragotta MA, Bills DM, Kuch BA, Watson RS. Pediatric specialized transport teams are associated with improved outcomes. *Pediatrics*. 2009. 124:40-8.
- Sirbaugh PE, Leswing V. Prehospital Pediatrics. *UpToDate*. 2011.