

Mock Code 8-20-2004  
Vanderbilt Children's Hospital  
Pediatric Emergency Department

Scenario: A 4 year-old female is brought to the Pediatric Emergency Department by EMS after being accidentally run over by the back wheels of the family pick-up truck. There was no loss of consciousness. The child complains of abdominal pain and chest pain. She has been moving all of her extremities. She is healthy. She has had no medical problems or operations. Her immunizations are current.

The patient is anxious and responds to simple commands. She seems to be in moderate pain.

Vital signs on ED arrival are BP 85/40 mmHg Pulse 140 beats/ minute; Respirations: 30 breaths/minute Temperature 96.3 degrees F.

**Primary Survey**

- A – The patient is anxious but talking clearly
- B – Breath sounds are clear, oxygen saturation is 94% on room air
- C – BP remains 85/40 mm Hg, Pulse is 140 beats/minute
- D – the patient is awake, moves all extremities
- E – The patient is on a backboard and exposed

Allergies: None

Medications: None

Past Medical History: None

Last Meal: 45 minutes prior to ED visit

Events leading to ED visit: Child was playing outside when a parent was going to run an errand when she got run over by the back wheel of the pickup truck.

**Resuscitation Phase: (occurs simultaneously with primary survey)**

How do you interpret the vital signs? Getting ready to crash

Is this patient in shock? Yes, early

What does a 4 year-old weigh? – 15kg

Does this child need oxygen? How much and by what route?

Is intubation needed? – Not yet

Is fluid resuscitation needed? YES If so, how much and what type? Crystalloid, 20ml/kg

Is blood required in this patient? Not yet

How many IV lines are needed? At least 2

Should a central line be placed? If 2 IVs cannot be obtained, yes

Should a foley catheter be placed? Yes

Should pain medication be given? Yes, after fluid resuscitation

Should this patient be typed and cross-matched for packed red blood cells? Yes

What x-rays should be obtained? CXR, Pelvis

Does a normal US exclude significant injury in children? No

A 20 ml/kg bolus of normal saline is given, vital signs remain unchanged. What should you do? Give another bolus of 20 mg/kg. What if the vitals remain unchanged? Give Blood at 10 ml/kg.

### **Secondary Survey**

**Head:** What's important? Palpable skull defects, hemotympanum, CSF rhinorrhea, CSF otorrhea, septal hematoma, midface instability, pupil symmetry, afferent pupillary defect, visual acuity, diplopia. Lacerations, mandibular tenderness. Normal

**Neck:** What's important? Non-tender, no step-off, tracheal midline, no expanding hematoma or crepitus.

**Lungs:** What's important? Symmetric excursion, crepitus, breath sounds, air movement. Flail chest?

**Heart:** What's important? Heart sounds distant? Regurgitant murmur?

**Abdomen:** What's important? Ecchymosis, tenderness, distention, peritonitis

**Pelvis:** What's important? Don't do a "pelvic rock" if you plan to get an x-ray as this may cause unnecessary bleeding due to worsening an existing fracture.

**Genitourinary:** look for scrotal hematoma (pelvis fracture) meatal blood (urethral injury)

**Rectal examination:** tone, prostate position, blood.

**Extremity examination:** deformity, pulses, movement, sensation. Knee dislocation (easily reduced) may not be so apparent if a patient is intubated. Crepitus, range of motion.

**Back:** bruising, deformity, step-off

**Neurological:** Re-examine for GCS, In this patient, the mental status is decreasing

**Skin:** abrasion, burns, lacerations

What next?

RSI

What drugs do you use?

Atropine 0.02 mg/kg

Lidocaine 1 mg/kg

Etomidate 0.2-0.4 mg/kg

Succinylcholine 1.5-2 mg/kg

What tube size do you use?

Cuffed tube or not? Why not?

Long term (longer than sux) paralytic? Vecuronium

What next?

CT scan

Blood

Trauma Surgery

PICU admission