Objectives

- Identify the unique aspects of children with special health care needs
- Discuss resuscitation guidelines and interventions for newly born infants
- Discuss the role and responsibility of prehospital providers who encounter suspected child abuse
- Describe “red flags” that suggest non-accidental injury
- Discuss recommendations for notifying and assisting the family of a child who dies

Case Study Scenario

- Scene of a school where a 5-year-old child who has fallen and struck his head
- Child has a history of ventriculoperitoneal (VP) shunt placement as an infant
- Child has become progressively sleepy and has vomited several times
Special Considerations

You arrive at the scene
- How should you approach this patient?
- What specific concerns does this child raise?
- What is a VP shunt and how does it affect the way you care for the patient?
- What is your best and quickest resource?

Children with Special Health Care Needs (CSHCN)
- Many children have significant medical histories
  - Infants - nonverbal
  - Children - poor historians
- Where do you get information?

CSHCN Patient Considerations
- Families can provide valuable information
- What do you ask?
  - SAMPLE history
  - Birth history
  - Special devices
Special Considerations

• CSHCN Patient Considerations
  – Specialized medical equipment:
    • Tracheostomy tube
    • Central venous access device
    • Feeding catheter
      – Nasal/oral
      – Gastric
    • VP shunt

• CSHCN Patient Considerations
  – Assessment should always include functional status of specialized equipment
  – Evaluate for:
    • DOPE and infection
    • D – Displacement
    • O – Obstruction
    • P – Pneumothorax, pulmonary problems, peritonitis, perforation, etc.
    • E – Equipment failure

Special Considerations

• Trauma in the Newborn
  – Trauma is the primary cause of morbidity, mortality among pregnant women
  – Always assume the fetus is alive in the prehospital setting
  – Refer to the neonatal resuscitation inverted pyramid to determine interventions necessary for newly born infants
  • Most need only drying, warming, and suction before placing on mother’s chest
Special Considerations
• Neonatal Resuscitation Inverted Pyramid

Special Considerations
• Initial Stabilization and Assessment
  – Is the gestation at term (greater than 37 weeks)?
  – Is the amniotic fluid clear?
  – Is the baby actively crying or breathing?
  – Does the baby have good muscle tone?

Special Considerations
• Abnormal Assessment of a Newborn
  – Airway:
    • Sniffing position to maintain
  – Breathing:
    • Administer oxygen by blow-by technique
    • Bag-valve-mask ventilation
  – Circulation:
    • Start chest compressions when airway maneuvers and 30 seconds of positive-pressure ventilation fail
    • Thumb technique or 2-finger technique
  – Drug Therapy:
    • IV/IO or UVC delivery
Special Considerations

• Child Abuse
  – Child abuse can happen in any family and in any setting
  – 3 million reports of suspected child abuse and neglect are made to Child Protective Services in U.S. annually
  – 1,500 child deaths were reported in U.S. in 2004 from maltreatment; actual number is thought to be greater

Special Considerations

• Prehospital Considerations for Abuse
  – Prehospital providers have advantages as gatherers of information
  – Remember SPICER:
    • S – Suspect; consider abuse
    • P – Protect the child and your team
    • I – Inspect the child for injury
    • C – Collect evidence, especially information
    • E – Expect the unexpected – believe the child who discloses abuse
    • R – Respect the child and family with non-judgmental care

Special Considerations

• Prehospital Considerations for Abuse
  – The child’s safety is paramount
  – Assess the situation and transport the child to the emergency department as soon as possible
  – Do not confront family members at the scene
  – Listen, remember, and document
  – Report all suspected abuse
Special Considerations

• Red flags for intentional injury:
  – Injury inconsistent with history
  – Changing history
  – Witness who reports abuse or suspicions of domestic violence
  – Inappropriate affect of the historian
  – Child who demonstrates excessive fear or withdrawal from particular person(s)
  – Child who discloses abuse

Special Considerations

• Physical findings of possible abuse:
  – Unexplained injuries, abdominal or head trauma
  – Marks or burns with appearance of man-made objects on unlikely body surfaces
  – Cigarette burns
  – Pinch marks
  – Adult-sized bite marks
  – Immersion burns ("glove" or "sock" pattern)
  – Rope burns
  – Unexplained mouth or dental injuries, fractures
  – Bulging fontanel in infants

Special Considerations

• Death of a Child
  – One of the most challenging situations for prehospital providers:
    • Intensive medical interventions
    • Overwhelming demands from parents and families
    • Provider’s own emotional reaction
    • Balance needs of surviving family, authorities at scene of death
**Special Considerations**

- **Death of a Child**
  - Prehospital providers typically encounter 3 stages of grief with child’s family
  - 1st Stage: Shock
    - Denial, numbness, internal conflict, guilt
  - 2nd Stage: Affective or emotional reaction
    - Anger, sadness, fear, anxiety
  - 3rd Stage: Alpha mourning

- **Families’ grief reactions:**
  - Tearfulness or hysterical crying
  - Flatness of affect
  - Varying and extreme displays of emotion
  - Anger or hostility directed at medical care providers
  - Feelings of guilt, hopelessness and loss of control
  - Be alert for symptoms that require emergency medical evaluation!

- **Recommendations for notifying families:**
  - Never release information to media before family
  - Never notify a family by telephone
  - A team of at least 2 providers is recommended
    - 1 gives information, 1 observes reaction of the family
  - Break the news in steps:
    1. Confirm identity of family members
    2. Tell them there has been an emergency
    3. Tell them the situation was so serious that a death occurred and promptly give details about the situation
    4. Use the child’s name and provide specific, clear information tactfully and honestly
Special Considerations

- Care for the prehospital provider
  - Often overlooked
  - Injured children very stressful

- CISM
  - Critical incident stress management and debriefing
  - Consider other responding agencies involved in child’s care

Special Considerations

- Case Study Continued
  - ITLS Primary Survey findings:
    - Child is very sleepy but arousable
    - Airway is open
    - Breathing is regular
    - Heart rate is 52 bpm
    - Blood pressure 120/80
  - Child is a priority patient due to altered level of consciousness and underlying medical condition

Special Considerations

- Case Study Decisions & Wrap-Up
  - Patient management:
    - 100% oxygen administered
    - Spinal motion restriction applied
    - IV started
    - Child placed on a monitor for transport with the head of the backboard elevated
  - Hospital examination reveals:
    - VP shunt disconnected
    - Child developed enlarged ventricles
    - Emergency surgery necessary
  - Patient makes a complete recovery
Points to Remember

- Perform the Initial Assessment and Rapid Trauma Survey on CSHCN exactly as you would on any other injured child.
- The majority of newly born infants require no intervention at birth beyond drying, warming, suctioning the mouth and nose, and placing the baby on the mother’s chest.

Special Considerations

Points to Remember

- Parents, family members, and close friends may display many different behaviors during the initial stages of grief:
  - Hysterical crying
  - Flatness of affect
  - Anger or hostility toward medical personnel
  - Feelings of guilt, hopeless, or loss of control
- Prehospital providers must be aware of indicators of abuse, recognize high-risk situations, obtain pertinent information, and convey information to the appropriate authorities. Document everything!

Questions?