Chapter 34
Pediatric Emergencies

Introduction

Pediatric patients differ anatomically, physically, and emotionally from adults.
– Illnesses and injuries, and their responses to them vary based on age or developmental level.
– Important to remember that children are not small ________________
– Fear of EMS providers and pain can make the child difficult to assess.

Pediatric Emergencies

Caring for sick and injured children presents special challenges.
EMT-Bs may find themselves ________________ when dealing with critically ill or injured children.
Treatment is the same as that for adults in most emergency situations.

Communication With the Patient and the Family

You may have more than one patient.
– Caregiver may need emotional help and support.
A calm parent contributes to a ________________ child.
– An agitated parent means child will act same way.
Remain calm, efficient, professional, and sensitive.

Growth and Development

Thoughts and behaviors of children usually grouped into stages
– Infancy: first year of life
– Toddler: 1 to ________________ years
– Preschool age: 3 to 6 years
– School age: 6 to ________________ years
– Adolescence: 13 to 18 years

Infant

First year of life
● They respond mainly to ________________ stimuli.
● Crying is a way of expression.
● They may prefer to be with caregiver.

7  □  Assessment of Infants
● Observe infant from a distance.
● Caregiver should hold baby during assessment.
● Provide sensory comfort.
  – Warm hands and end of stethoscope.
● Do painful procedures at ________________ of assessment.
● Explain each procedure to the parent or caregiver before you perform it.

8  □  Toddler
● 1 to 3 years of age
● They begin to walk and explore the environment.
● They may resist ________________ from caregivers.
● Begin your assessment at the feet.
● Vocabulary grows rapidly

9  □  Assessment of Toddlers
● May have stranger anxiety
● May resist separation from caregiver
● May have a hard time describing pain
● Can be ________________
● Persistent crying can be a symptom of serious illness or injury.

10 □  Preschool Age Children
● 3 to 6 years of age
● They can use simple language effectively.
● They can understand ________________
● They can identify painful areas when questioned.
● They can understand when you explain what you are going to do using simple descriptions.
● Begin assessment at feet, moving to head.

11 □  Assessment of Preschool
**Age Children**
- Much history must still be obtained from caregivers.
- Appeal to child’s imagination to facilitate examination.
- Never __________________ to the patient.
- Patient may be easily distracted.

12 School Age Children
- 6 to 12 years of age
- Beginning to act more like adults
- Can respond sensibly to questions
- Can help take care of themselves
- __________________ is important.
- Children begin to understand death

13 Assessment of School Age Children (1 of 2)
- Assessment begins to be more like adults’.
- Talk to the child, not just the caregiver.
- Start with head and move to the feet.
- Give the child __________________ if possible.
- Ask only questions that let you control the answer:
  - Would you like me to take the BP on the right or left arm?

14 Assessment of School Age Children (2 of 2)
- Allow the child to listen to his or her heartbeat through the stethoscope.
- Can understand difference between physical and __________________ pain
- Give them simple explanations about what is causing pain and what will be done about it.
- Ask the parent’s or caregiver’s advice about which distraction will work best.

15 Adolescents
13 to 18 years of age
They are very concerned about ______________________ image.
They may have strong feelings about being observed.
Puberty begins
Feel “indestructible”
They understand pain.

16 □ Assessment of Adolescents (1 of 3)
● Respect an adolescent’s privacy.
● ______________________ any procedure that you are doing.
● Can often understand complex concepts and treatment options
● Allow them to be involved in their own care.
● Provide choices, while lending guidance.

17 □ Assessment of Adolescents (2 of 3)
● EMT of same gender should do assessment, if possible.
● Allow them to speak openly and ask questions.
● ______________________ behaviors are common.
  – Can ultimately facilitate development and judgment, and shape identity
  – Can also result in trauma, dangerous sexual practices, and teen pregnancy

18 □ Assessment of Adolescents (3 of 3)
Female patients may be pregnant:
● Important to report this information to receiving facility.
● Adolescent may not want ______________________ to know this information.
● Try to interview without the caregiver/parent present.

19 □ Differences Between Pediatrics and Adults

20 □ Airway Differences
● Larger, rounder occiput
● Larger ______________________ relative to the mouth
Breathing Differences (1 of 2)

- Children have oxygen demand twice that of an adult.
- Infants use the diaphragm when they breathe.
- Sustained, labored breathing may lead to respiratory _____________.
- Respiratory problems are the leading cause of cardiopulmonary arrest in the pediatric population.

Breathing Differences (2 of 2)

- During respiratory distress, the pediatric patient is working harder to breathe and will eventually go into respiratory failure.
- Respiratory failure occurs when the pediatric patient has ________________ all compensatory mechanisms.
- Waste products collect, leading to respiratory arrest, a total shutdown.

Circulation Differences (1 of 2)

- The normal heart rate is faster than adults.
  - Infants heart can beat 160 beats/min or more.
- The heart rate increases for illness and injury.
- Primary method used to compensate for decreased ________________
  - Vasoconstriction keeps vital organs nourished.
- Constriction of the blood vessels can affect blood flow to the extremities.

Circulation Differences (2 of 2)

- Pediatrics are more dependent on actual cardiac ________________.
  - Blood being pumped out of heart in 1 minute
- May be in shock despite normal blood pressure
- A small amount of blood loss can lead to shock.
Pediatric Pulse Rates

The Nervous System (1 of 2)

- Pediatric nervous system is immature, underdeveloped, and not well protected.
  - Head-to-body ratio of infant and young child is disproportionately ________ .
  - Occipital region is larger, which increases the momentum of the head during a fall.
  - Subarachnoid space is relatively smaller, leaving less cushioning for brain.
  - Brain tissue and cerebral vasculature are fragile and prone to bleeding from shearing forces.

The Nervous System (2 of 2)

- Pediatric brain requires higher cerebral blood flow, oxygen, and glucose.
  - At risk for secondary brain damage from hypotension and __________ events

- Spinal cord injuries are less common.
  - If injured, it is more likely to be an injury to the ligaments because of a fall.
  - For suspected neck injury, perform manual in-line stabilization or follow local protocols.

Gastrointestinal System (1 of 3)

- Abdominal muscles are less developed.
- Less protection from trauma.
- Liver, spleen, kidneys are proportionally __________________________ and situated more anteriorly and close to one another.
  - Prone to bleeding and injury
  - There is a higher risk for multiple organ injury.

Gastrointestinal System (2 of 3)

- Signs and symptoms of acute abdomen may be vague.
- Abdominal walls are underdeveloped.
- May not be able to pinpoint origin of pain
- Take complaints of abdominal pain __________________________.
- Large amount of bleeding may occur within abdominal cavity, without signs of shock.

30  **Gastrointestinal System (3 of 3)**
- Liver and splenic injuries are common in this age group.
- Needs to be monitored for shock; may include AMS, ________________, tachycardia, and bradycardia.

31  **Musculoskeletal System (1 of 4)**
- Open growth ________________ allow bones to grow.
- As a result of growth plates, children’s bones are softer and more flexible, making them prone to stress fracture.
- Bone length discrepancies can occur if injury to growth plate occurs.
  – Immobilize all strains and sprains.

32  **Musculoskeletal System (2 of 4)**
- Bones of an infant’s head are flexible and soft.
- ________________ (soft spots) are located at front and back of head.
  – Will close at particular stages of development.

33  **Musculoskeletal System (3 of 4)**
- Fontanelles can be a useful assessment tools
  – ________________ indicates intracranial pressure.
- Thoracic cage is highly elastic and pliable.
  – Composed of cartilaginous connective tissue
  – Ribs and vital organs are less protected.
- Muscles and bones grow into adolescence.

34  **Musculoskeletal System (4 of 4)**
- The younger the child, the more flexible the bone structures.
  – Sprains are uncommon and femur fractures ________________.
- Older children are prone to long bone fractures due to more risks and activity.

35  **Integumentary System (1 of 2)**
- Thinner skin and less subcutaneous fat
- Higher ratio of body surface area to body mass leads to larger fluid.
and heat losses.

- Composition of skin is thinner and tends to burn more easily with less exposure.

36 Integumentary System (2 of 2)
Thermoregulator system is immature:
- Makes pediatric population more prone to ____________ events
- Lack of ability to shiver to generate heat
- Children should be kept warm during transport.
- Without treatment of hypothermic event, patient may lapse into convulsive seizure activity.

37 Scene Size Up
- Take note of your surroundings.
- Scene assessment will supplement additional findings.
- Observe:
  - Position of the patient
  - Condition of the home
  - Clues to child ____________

38 Primary Assessment
- Begins before you touch the patient
- Form a general impression.
- Determine a chief ____________.
- The Pediatric Assessment Triangle can help.

39 Pediatric Assessment Triangle (PAT)
- Should take only 15-30 seconds
- ____________
- Work of breathing
- Skin circulation
- Requires no tools or equipment
- Observation only

40 Appearance
• Note LOC, muscle tone, interactiveness.
• ______________________ mnemonic helps determine if patient is sick or not sick.
  – Tone
  – Interactiveness
  – Consolability
  – Look or gaze
  – Speech or cry

41 □ Work of Breathing
• Increases body temperature
• May manifest as tachypnea, abnormal airway ______________, or retractions of intercostal muscles or sternum

42 □ Circulation to the Skin
• Pallor of skin and mucous membranes may be seen in compensated shock.
• Mottling is sign of poor perfusion.
• Cyanosis reflects decreased level of ____________________.

43 □ Stay or Go?
From PAT findings, you will decide if the patient is stable or requires urgent care:
• If unstable, assess _________________________, treat life threats, and transport immediately.
• If stable, continue with the remainder of the assessment process.

44 □ Assessing the ABCs
• Ensure airway is open and position patient.
• Breathing assessment
  – Effort
  – Obstructions
  – _________________________
• Circulation assessment
  – Rate
  – Skin color, temp., and capillary refill

45 □ Transport Decision
Children under __________________ lbs should be transported in a child safety seat, if the situation allows.

- Seat should be secured to the captain’s chair.
- Cannot be secured to bench seat
- Child may have to be transported without a seat, depending on condition.

46 □ History Taking (1 of 2)
- Based on MOI or NOI
- Length of sickness or injury
- Key events leading up to injury or illness
- Presence of __________________________
- Effects of illness or injury on behavior
- Patient’s activity level
- Recent eating, drinking, and urine output

47 □ History Taking (2 of 2)
- Changes in bowel or bladder habits
- Presence of vomiting, diarrhea, abdominal pain
- Presence of rashes
- __________________________ history
- Obtain OPQRST
- Obtain name and phone number of caregiver if they are not able to come to the hospital with you.

48 □ Secondary Assessment
- Should be completed on scene unless severity requires rapid transport
- Young children should be examined toe to head.
- Focused exam on __________________________ patients
- Rapid scan on potentially critical patients
- Physical exam is basically the same as that of an adult

49 □ Vital Signs by Age

50 □ Respirations
Abnormal respirations are a common sign of illness or injury.
Count respirations for 30 seconds.
In children less than 3 years, count the rise and fall of the abdomen.
Note _____________________ of breathing.
Listen for noises.

51 □ Pulse
In infants, feel over the _____________________ or femoral area.
In older children, use the carotid artery.
Count for at least 1 minute.
Note strength of the pulse.

52 □ Blood Pressure (1 of 2)
Use a cuff that covers two thirds of the ________________ arm.
If scene conditions make it difficult to measure blood pressure accurately, do not waste time trying.
Usually not needed if under 3 yOA

53 □ Blood Pressure (2 of 2)
• Use this formula to determine blood pressure for children ages ________________ years:
  • 70 + (2 × child’s age in years) = systolic blood pressure

54 □ Skin Signs
Feel for temperature and moisture.
Check capillary refill.

55 □ Reassessment
Repeat the primary assessment.
Obtain vitals every ________________ minutes if stable.
Obtain vitals every 5 minutes if unstable.
Continually monitor respiratory effort, skin color and condition, and level of consciousness.
Check interventions
Communicate and document

56 □ Respiratory Emergencies
Respiratory Emergencies

Signs of Increased Work of Breathing

- ________________ flaring
- Grunting respirations
- Wheezing, stridor, other abnormal sounds
- Accessory muscle use
- Retractions/movements of child’s flexible rib cage
- In older children, tripod position

Airway Obstruction (1 of 2)

- Small children are always putting objects in their mouths causing ________________
- In cases of trauma, teeth may have dislodged into the airway.
- Infections such as epiglottitis and croup cause obstructions
- Best way to auscultate breath sounds in the pediatric patient is to listen to both sides of the chest at armpit level.

Airway Obstruction (2 of 2)

- Immediately begin treatment of airway obstruction.
  - Encourage ________________ to clear airway when patient is conscious and forcibly coughing.
  - If you see signs of a severe airway obstruction, attempt to clear the airway immediately.
  - If an infant is conscious with a complete airway obstruction, perform up to five back blows followed by chest thrusts.

Asthma (1 of 3)

- Bronchioles become inflamed, swell, and produce excessive ________________, leading to difficulty breathing.
- One of the most common illnesses seen
- Almost 5 million US children are affected.
- Common causes for asthma attack include upper respiratory
infection, exercise, exposure to cold air, emotional stress, and passive exposure to smoke.

62 □ Asthma (2 of 3)
● Asthma is a true emergency if not promptly treated.
Signs and symptoms:
● Wheezing as patient exhales
  – In some cases, airway is completely ________________________.
● Cyanosis and respiratory arrest may quickly develop.
● Tripod position allows for easier breathing.

63 □ Asthma (3 of 3)
● According to the Centers for Disease Control and Prevention (CDC), __________________________ % of children in the United States have asthma and, in 2007 alone, 185 children died of asthma.

64 □ Treatment of Asthma (1 of 2)
● Administer supplemental oxygen.
● Bronchodilator via metered-dose inhaler with a spacer mask device (if protocol allows)
  – Often caregivers have administered albuterol.
● If assisting ventilations, use slow, gentle breaths.
  – Resist temptation to squeeze bag hard and __________________________.

65 □ Treatment of Asthma (2 of 2)
● A prolonged asthma attack may progress into status __________________________.
  – A true emergency
  – Give oxygen and transport immediately.
● Patient may become exhausted from trying to breath.
  – Manage airway aggressively, administer oxygen, and transport promptly.

66 □ Pneumonia
● Leading cause of death in children
● Pneumonia is a general term that refers to an __________________________ to the lungs.
● Presentation in pediatric patient
Pediatric patient treatment
Diagnosis of pneumonia must be confirmed in the hospital.

- Croup
  - Viral infection of the larynx, trachea, and mainstem bronchi.
  - Usually 6 mo. to ________________ years of age.
  - Gradual onset, low grade fever.
  - Nocturnal dyspnea, stridor, wheezing, “seal bark cough.
  - Treatment is to give ________________ oxygen.

- Epiglottitis
  - ________________ infection of the epiglottis.
  - Usually 4 to 7 yoa.
  - Rapid onset, high fever.
  - Stridor, wheezing, pain on swallowing, ________________, muffled voice.
  - May cause complete airway obstruction.
  - Treatment is to give oxygen and rapid transport.
  - Do Not Visualize Throat!!!!!

- Bronchiolitis
  - Specific viral illness of newborns and toddlers, often caused by ________________
  - More common in premature infants and results in copious secretion
  - Look for signs of dehydration, shortness of breath, and fever.
  - Treatment
  - 
  - 

- Pertussis
  - Pertussis (whooping cough) is caused by a bacterium spread via respiratory droplets.
  - Signs and symptoms similar to a cold
  - To treat pediatric patients, keep the airway patent (open) and transport.
Pertussis is ____________________, so follow standard precautions, including wearing a mask and eye protection.

71 Care of the Pediatric Airway (1 of 2)
- Position the airway.
- Position the airway in a neutral sniffing position.
- If spinal injury is suspected, use ____________________ maneuver to open the airway.

72 Care of the Pediatric Airway (2 of 2)
Positioning the airway:
- Place the patient on a firm surface.
- Fold a small towel under the patient’s ____________________ and back.
- Place tape across patient’s forehead to limit head rolling.

73 Oropharyngeal Airways
- Determine the appropriately sized airway.
- Place the airway next to the face to confirm correct size.
- Position the airway.
- Open the ____________________.
- Insert the airway until flange rests against lips.
- Reassess airway.

74 Nasopharyngeal Airways (1 of 2)
- Determine the appropriately sized airway.
- Place the airway next to the ____________________ to make certain length is correct.
- Position the airway.
- Lubricate the airway.

75 Nasopharyngeal Airways (2 of 2)
- Insert the tip into the ____________________ naris.
- Carefully move the tip forward until the flange rests against the outside of the nostril.
- Reassess the airway.

76 Oxygen Delivery Devices
Nonrebreathing mask at 10 to 15 L/min provides approximately ________________ % oxygen concentration.

Blow-by technique at 6 L/min provides more than 21% oxygen concentration.

Nasal cannula at 1 to 6 L/min provides 24% to 44% oxygen concentration.

BVM Devices
- Equipment must be the right size.
- BVM device at 10 to 15 L/min provides nearly 100% oxygen concentration.
- Ventilate at the proper ________________ and volume.
- May be used by one or two rescuers

Pediatric Medical Emergencies

Dehydration
- Determine if child is vomiting and has diarrhea and for how long.
- “How many ________________ diapers has the child had during the day (6 to 10 is normal)?”
- “What fluids is the child taking?”
- “What was the child’s weight before the symptoms started?”
- “Has the child been normally active?”

Shock (1 of 5)
- A condition that develops when the circulatory system is unable to deliver a sufficient amount of blood to the organs
  - Results in organ failure and eventually ________________ arrest

Shock (2 of 5)
- Pediatric patients respond differently than adults to fluid loss.
  - May respond by increasing heart rate, increasing respirations, and showing signs of pale or ________________ skin
Shock (3 of 5)
- Treat shock by assessing ABCs, intervening as required.
  - The order becomes ______________________ if there is obvious life-threatening external hemorrhage or if cardiac arrest is suspected.
  - Pediatric patients do not demonstrate a fall in blood pressure until shock is severe.

Shock (4 of 5)
- Treatment (cont’d)
  - Limit your management to simple interventions.
  - Do not waste time performing field procedures.
  - Ensure airway is open; prepare for artificial ______________________.
  - Control bleeding.
  - Give supplemental oxygen by mask or blow-by.

Shock (5 of 5)
- Treatment (cont’d)
  - Continue to monitor airway and breathing.
  - Position the pediatric patient in a position of comfort.
  - Keep ______________________ with blankets and heat.
  - Provide immediate transport.
  - Contact ALS backup as needed.

Emergency Medical Care for Dehydration
- Assess the ABCs.
- Obtain baseline vital signs.
- Treat for shock as needed
- ALS backup may be needed for ______________________ administration.
Seizures
- Result of disorganized ________________ activity in the brain
  - Subtle in infants, with an abnormal gaze, sucking, and/or “bicycling” motions
  - More obvious in older children with repetitive muscle contractions and unresponsiveness
- Status epilepticus is a continuous seizure, or multiple seizures without a return to consciousness for 30 minutes or more.

Febrile Seizures
- Febrile seizures are most common in children from 6 months to 6 years.
- Febrile seizures are caused by ________________.
- They last less than 15 minutes.
- Assess ABCs and begin cooling measures.
- Provide prompt transport.

Emergency Medical Care of Seizures (1 of 2)
- Perform initial assessment, focusing on the ________________.
- Protect from injury
- Securing and protecting the airway is the priority.
- Place patient in the recovery position.
- Be ready to ________________.

Emergency Medical Care of Seizures (2 of 2)
- Deliver oxygen by mask, ________________, or nasal cannula.
- Obtain blood glucose level if authorized
- Begin BVM ventilation if no signs of improvement.
- Call ALS for backup if appropriate.

Altered Level of Consciousness (LOC)
- The first step in treatment is to assess the ABCs and provide proper
The first step in treatment is to assess the ABCs and provide proper care.
● Use the __________________ scale.
● Obtain brief history from caregivers.
● After initial assessment, secure airway.
● Support patient’s vital functions.
● Provide prompt transport.

Poisoning
● Poisoning is common in children.
● Care will be based on how awake and __________________ the child appears.
● Focus on the ABCs.
● Do not administer activated charcoal unless directed by medical control.
● Provide transport.
● Child’s condition could change at any time.

Poisoning Emergencies and Management
● After primary assessment, ask caregiver the following:
   – What is the __________________ involved?
   – Approximately how much was ingested?
   – What time did the incident occur?
   – Any changes in behavior or level of consciousness?
   – Any choking or coughing after the exposure?

Fever Emergencies
● _______________° or higher is abnormal
● Common causes of fever
   – Infections
   – Neoplasm (cancer)
   – Drug ingestion
   – Vascular disease
   – High environmental temperatures

Emergency Care of Fever
● Perform assessment of ABCs and care for life threats.
Perform assessment of ABCs and care for life threats.

- Obtain vital signs.
- Evaluate for signs and symptoms of shock.
- If child feels very warm, remove ____________________.
- Begin cooling measures en route.

95 Meningitis

- Inflammation of the linings of the brain and spinal ________________

- Signs/Symptoms
  - Fever
  - Altered level of consciousness
  - Headache
  - Seizure
  - Stiff ____________________
  - Irritability

96 People at Greater Risk

- Individuals at greater risk for meningitis:
  - ____________________
    - Newborn infants
    - Compromised immune system by AIDS or cancer
    - History of brain, spinal cord, back surgery
    - Children who have had head trauma
    - Children with shunts, pins, or other foreign bodies in their brain or spinal cord

97 Neisseria Meningitidis (Bacterial Meningitis)

- Rapid onset of meningitis symptoms
- Often associated with small pinpoint cherry-red spots or larger ____________________ /black rash

- Children at serious risk for sepsis, shock, and death
- All suspected cases of meningitis should be considered contagious.

98 Neisseria Meningitidis (Bacterial Meningitis)

99 Emergency Medical Care
of Meningitis
● Begin with assessment of ABCs.
● Care for life threats.
● Give supplemental ____________________.
● Assess vital signs.
● Keep patient warm.
● Monitor for shock.
● If patient’s vital signs are unstable, call ALS for backup.

Pediatric Trauma

Injury Patterns:
Automobile Collisions
● The exact area of impact will depend on the child’s height.
● A car bumper dips down when stopping suddenly, causing a ____________________ point of impact.
● Children often sustain high-energy injuries.

Injury Patterns:
Sports Activities
● Head and neck injuries can occur from high-speed collisions during contact sports.
● Immobilize the ____________________ spine.
● Follow local protocols for helmet removal.

Head Injuries
● Common injury among children
● The head is larger in proportion to an adult.
● Infant has softer, thinner ____________________
● Nausea and vomiting are signs of pediatric head injury.
● Bulging fontanelles indicate increased intracranial pressure (ICP)

Chest Injuries
● Most chest injuries in children result from blunt trauma.
● Children have soft, flexible ribs.
● The absence of obvious external trauma does ____________________ exclude the likelihood of serious internal injuries.

Abdominal Injuries
Abdominal injuries are very common in children. Children compensate for blood loss better than adults but go into shock more. Watch for:

- Weak, rapid pulse
- Cold, clammy skin
- Poor capillary refill

**Injuries to the Extremities**

- Children’s bones more easily than adults’ bones.
- Incomplete fractures can occur.
- Do not use adult immobilization devices on children unless the child is large enough.

**Burns**

- Most common burns involve exposure to hot substances.
- Suspect internal injuries from ingestion when burns are present around lips and mouth.
- Infection is a common problem with burns.
- Consider the possibility of child abuse.

**Submersion Injury**

- Drowning or near drowning
- Second most common cause of unintentional death of children in the United States
- Assessment and reassessment of are critical.
- Consider the need for C-spine protection.

**Child Abuse**

- Child abuse refers to any improper or excessive action that injures or harms a child or infant.
- This includes physical abuse, sexual abuse, , and emotional abuse.
- More than 2 million cases are reported annually.
- Be aware of signs of child abuse and report suspicions to authorities.

**Signs of Child Abuse**
Questions Regarding Signs of Abuse (1 of 3)

- Is the injury __________________ for the child’s developmental stage?
- Is reported method of injury consistent with injuries?
- Is the caregiver behaving __________________
- Is there evidence of drinking or drug abuse?
- Was there a delay in seeking care for the child?

Questions Regarding Signs of Abuse (2 of 3)

- Is there a good relationship between child and caregiver?
- Does the child have multiple injuries at various __________________ of healing?
- Does the child have any unusual marks or bruises?
- Does the child have several types of injuries?

Questions Regarding Signs of Abuse (3 of 3)

- Does the child have burns on the hands or feet involving a __________________ distribution?
- Is there an unexplained decreased level of consciousness?
- Is the child __________________ and an appropriate weight?
- Is there any rectal or vaginal bleeding?
- What does the home look like? Clean or dirty? Warm or cold? Is there food?

Child Abuse Warning Signs (1 of 2)

- Bruises
  - Observe color and location.
- Burns
  - Burns to the penis, testicles, vagina, or buttocks are usually inflicted by someone else.
  - Burns that look like a __________________ are usually inflicted by someone else.
    - You should suspect child abuse if the child has cigarettes burns
You should suspect child abuse if the child has cigarette burns or grid pattern burns.

- Child Abuse Warning Signs (2 of 2)
  - Fractures
    - Falls from bed are not usually associated with fractures.
  - Shaken baby syndrome
    - Infants may sustain life-threatening trauma by being shaken or struck.
    - Shaking tears blood vessels in the brain, resulting in bleeding around the brain.

- Shaken Baby Syndrome (1 of 2)
  - Infants may sustain life-threatening head trauma by being shaken or struck.
  - Life-threatening condition
  - Bleeding within the head and damage to the spine
  - Infant will be found unconscious often without evidence of external trauma.

- Shaken Baby Syndrome (2 of 2)
  - Shaking tears blood vessels in the , resulting in bleeding around the brain.
  - Pressure from blood results in an increase in cranial pressure leading to coma and/or death.

- Neglect
  - Refusal or failure to provide life
  - Examples are water, clothing, shelter, personal hygiene, medicine, comfort, personal safety.
  - Child may show no signs of physical abuse
  - Child may appear frail, week, and pale

- Sexual Abuse
  - Children of any age or either sex can be victims.
  - examination.
  - Do not allow child to wash, urinate, or defecate.
● Maintain professional composure.
● Transport.

120  Emergency Medical Care
● EMT-Bs must report ____________________ suspected cases of child abuse.
● Most states have special forms for reporting.
● You do not have to prove that abuse occurred.
● Try to convince a parent to allow transport, regardless of severity
● Do not make ____________________.
● Treat injuries as required

121  Pain Management
  • First step is recognizing the patient is in pain.
  • Look for visual clues and use the Wong-Baker ____________________ pain scale.
  • Interventions are limited to positioning, ice packs, and extremity elevation (to decrease pain and swelling to injury site).
  • ALS interventions may be needed.
  • Another important tool is kindness and providing emotional support.

122  Disaster Management (1 of 4)
● JumpSTART triage system
  – Intended for patients younger than age ________________ years and weighing less than 100 lbs
  – Four triage categories
    ● Green
    ● Yellow
    ● Red
    ● Black

123  Disaster Management (2 of 4)
● JumpSTART triage system (cont’d)
  – Green: minor not in need of immediate treatment
    ● Able to ____________________ (except in infants)
  – Yellow: delayed treatment
● Presence of spontaneous breathing with peripheral pulse, responsive to painful stimuli

124  □  Disaster Management (3 of 4)
● JumpSTART triage system (cont’d)
   – Red: __________________________ response
      ● Apnea responsive to positioning or rescue breathing, respiratory failure, or inappropriate painful response
   – Black: deceased or expectant deceased
      ● Apneic without pulse, or apneic and unresponsive to rescue breathing

125  □  Disaster Management (4 of 4)

126  □  Immobilization
● Any child with a head or back injury should be immobilized.
● Young children may need padding beneath their ________________ .
● Children may need padding along the sides of the backboard.

127  □  Pediatric Immobilization Device

128  □  Immobilization in a Child Safety Seat (1 of 2)
● Assess child for injuries and seat for visible damage.
● If child is injured or seat is damaged, remove child to another transport device
● Apply padding around child to minimize ______________________ .
● Move seat to ambulance and secure according to the manufacturer’s instructions.

129  □  Immobilization in a Child Safety Seat (1 of 2)

130  □  Removing a Child from a Child Safety Seat
● Remove both the child and the seat from the vehicle.
● Place immobilization device behind the child.
● Slide child into place on device.
Sudden Infant Death Syndrome (SIDS)

- Death for _______________ reason in an otherwise healthy child.
- Several known risk factors:
  - Mother younger than 20 years old
  - Mother smoked during pregnancy
  - Low birth weight

Tasks at Scene of SIDS

- Assess and manage the patient.
- Communicate with and support the ________________.
- Assess the scene.

Assessment and Management

- Assess ABCs and provide interventions as necessary.
- If child shows signs of postmortem changes, call medical control.
- If there is no evidence of postmortem changes, begin ______________ immediately.
- If resuscitation is contraindicated, notify law enforcement and preserve scene.

Communication and Support

- The death of a child is very stressful for the family.
- Provide support in whatever ways you ________________.
- Use the infant’s name.
- If possible, allow the family time with the infant; but preserve scene until after investigation.

Scene Assessment

- Carefully inspect the environment, following local protocols.
- Concentrate on:
  - Signs of illness
  - General ________________ of the house
  - Family interaction
  - Site where infant was discovered

Key Points on SIDS
Lividity can often look like ________________; so cautious what you say
Never accuse anyone of child abuse
All non-institutional scenes, where death occurs, are considered crime scenes until proved otherwise
ALWAYS notify law enforcement, stay on scene, and preserve evidence

138 Apparent Life-Threatening Event
Aka: Near SIDS
Infant found not breathing, cyanotic, and unresponsive but resumes breathing with ________________
Complete careful assessment.
Transport immediately.
Pay strict attention to airway management.

139 Death of a Child (1 of 2)
Be prepared to support the family.
Family may insist on ________________ efforts.
Introduce yourself to the child’s caregivers.
Do not speculate on the cause of death.

140 Death of a Child (2 of 2)
Allow the family to see the child and say good-bye.
Be prepared to answer questions posed by caregivers.
Seek professional help for yourself if you notice signs of ________________ stress.