2025 Interim Training Materials:
PEARS® Provider Manual Changes

Purpose

These instructions will help update the current *Pediatric Emergency Assessment, Recognition, and Stabilization* (PEARS®) *Provider Manual* with science from both the *2020 and 2025 Guidelines for Cardiopulmonary Resuscitation* (CPR) *and Emergency Cardiovascular Care.*

Instructors should print these materials and provide copies to students when teaching the new 2025 Guidelines courses while using 2017 PEARS® provider materials until updated Heart & Stroke PEARS® Course materials become available.

Exams and assessments will continue to follow the 2017 Guidelines.

Provider Manual Changes

1. Pediatric Chain of Survival

2025 Changes

- A single Chain of Survival is intended to be applicable to adult and pediatric in- and out-of-hospital cardiac arrest. In creating this singular chain, it is acknowledged that, before cardiac arrest, prevention and preparedness can both avoid and optimize resuscitation.
  - The systems of care guidelines follow the unified cardiac arrest Chain of Survival, beginning with prevention and preparedness to resuscitate, proceeding with early identification of cardiac arrest, and then progressing to effective resuscitation through to post–cardiac arrest care, recovery, and survivorship. The unified cardiac arrest Chain of Survival includes the following links:
    - Recognition and Emergency Activation
    - High-Quality CPR
    - Defibrillation
    - Advanced Resuscitation
    - Post–Cardiac Arrest Care
    - Recovery and Survivorship

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- Part 2: Review of BLS and AED for Infants and Children
  - Section: Overview
    - Pediatric Chain of Survival

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2. Infant Compressions

2025 Changes

- For infants, rescuers should compress the sternum with the heel of one hand or using the 2 thumb–encircling hands technique. If the rescuer cannot physically encircle the chest, it is recommended to compress the chest with the heel of one hand.
  - For infants, single rescuers (whether lay rescuers or health care professionals) should compress the sternum with 2 thumbs placed just below the nipple line.
  - For infants, if the rescuer is unable to achieve guideline-recommended depths (at least one third the diameter of the chest), it may be reasonable to use the heel of one hand.
  - The 2-finger technique for infant CPR is no longer recommended.

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- Part 2: Review of BLS and AED for Infants and Children
  - Section: BLS for Infants and Children
    - Infant and Child 1-Rescuer BLS Sequence (Begin High-Quality CPR, Starting With Chest Compressions [Boxes 5, 6])
    - Infant/Child Chest Compressions (Chest Compression Technique; Infant [1 Rescuer]: 2-Finger Technique)
    - Infant and Child 2-Rescuer BLS Sequence (Begin High-Quality CPR, Starting With Chest Compressions [Box 4])
- Part 13: Identification and Management of Cardiac Arrest
  - Table 18: Summary of High-Quality CPR Components for BLS Providers

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- Appendix
  - Section: PEARS Infant CPR Skills Testing Checklist
  - Section: PEARS Infant CPR Skills Testing Critical Skills Descriptors

3. Septic Shock Treatment

2020 Changes

- In patients with septic shock, it is reasonable to administer fluid in 10 mL/kg or 20 mL/kg aliquots with frequent reassessment.
- In infants and children with fluid-refractory septic shock, it is reasonable to use either epinephrine or norepinephrine as an initial vasoactive infusion; if neither is available, dopamine may be considered.
- For infants and children with septic shock unresponsive to fluids and requiring vasoactive support, it may be reasonable to consider stress-dose corticosteroids.

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- Part 11: Shock Case Discussions
  - Section: Resources for Video Case Discussions and Case Scenarios
    - Intervene (Pediatric Management of Shock Flowchart)
- Part 14: Putting It All Together
  - Section: Resources for Case Scenarios
    - Intervene (Pediatric Management of Shock Flowchart)
- Appendix
  - Section: Pediatric Management of Shock Flowchart

4. Hypoglycemia

2020 Change

- For children with suspected hypoglycemia who are awake but unwilling to swallow oral glucose, it may be reasonable to apply a slurry of granulated sugar and water under the tongue.

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- Part 10: Management of Shock Emergencies
  - Section: Glucose (Management of Hypoglycemia)

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5. Assisted Ventilation Rate: Rescue Breathing (BLS)

2020 Updated

- For infants and children with a pulse but absent or inadequate respiratory effort, it is reasonable to give 1 breath every 2 to 3 seconds (20-30 breaths/min).

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- Part 2: Review of BLS and AED for Infants and Children
  - Section: BLS for Infants and Children
    - BLS Healthcare Provider Pediatric Cardiac Arrest Algorithm for the Single Rescuer (3b)
    - BLS Healthcare Provider Pediatric Cardiac Arrest Algorithm for 2 or More Rescuers (3b)
- Part 4: Initial Assessment and Response
  - Section: If Child Is Unresponsive in Respiratory or Cardiac Arrest
    - If No Effective Breathing, But Pulse Is Present, Provide Rescue Breaths (Box 5)
- Part 7: Management of Respiratory Emergencies
  - Section: Management of Respiratory Distress
    - Rescue Breathing
- Resources: Equipment and Procedures for Management of Respiratory Emergencies
  - Section: Bag-Mask Ventilation
    - Gastric Inflation (Ways to Minimize Gastric Inflation)
- Part 13: Identification and Management of Cardiac Arrest
  - Figure 27: BLS Healthcare Provider Pediatric Cardiac Arrest Algorithm for the Single Rescuer (3b)
  - Figure 28: BLS Healthcare Provider Pediatric Cardiac Arrest Algorithm for 2 or More Rescuers (3b)
- Appendix
  - Section: BLS Healthcare Provider Pediatric Cardiac Arrest Algorithm for the Single Rescuer (3b)
  - Section: BLS Healthcare Provider Pediatric Cardiac Arrest Algorithm for 2 or More Rescuers (3b)

6. Foreign-Body Airway Obstruction

2025 Changes

- For children with severe foreign-body airway obstruction, repeated cycles of 5 back blows alternated with 5 abdominal thrusts should be performed until the object is expelled or the child becomes unresponsive. Rescuers should activate the emergency response system.
  - For children, perform 5 back blows by using the heel of your hand to forcefully strike the person's back in between their shoulder blades. If back blows do not relieve choking, perform 5 abdominal thrusts. Make a fist with one hand, grab it with your other hand, and press your fist into the person's abdomen with a quick, forceful upward thrust. Give each new thrust with a separate, distinct movement. Continue alternating 5 back blows followed by 5 abdominal thrusts until the object is dislodged or the person becomes unresponsive.

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- For infants with severe foreign-body airway obstruction, repeated cycles of 5 back blows alternating with 5 chest thrusts should be performed until the object is expelled or the infant becomes unresponsive. Rescuers should activate the emergency response system.
  - To perform chest thrusts for infants, hold the infant faceup, with your forearm resting on your thigh. Keep the infant's head lower than their trunk. Provide 5 quick downward chest thrusts with the heel of one hand in the middle of the chest, over the lower half of the sternum. Deliver chest thrusts at a rate of about 1 per second, each with enough force to dislodge the object. Repeat the sequence of up to 5 back blows and up to 5 chest thrusts until your actions have removed the object or the infant becomes unresponsive.

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- Part 5: Primary Assessment: Airway, Breathing, Circulation, Disability, and Exposure
  - Section: Primary Assessment: Airway and Breathing
    - Simple Measures to Maintain the Airway
- Part 7: Management of Respiratory Emergencies
  - Section: Management of Upper Airway Obstruction
    - Specific Interventions Based on Cause of Upper Airway Obstruction (Interventions for Foreign-Body Airway Obstruction)

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