

## 2015 Interim Training Materials

### PEARS® Provider Manual Comparison Chart

	New	Old	Rationale
<p><b>Immediate recognition and activation of emergency response system</b></p> <p><b>(Part 1, BLS Competency Testing; Apply update throughout course as needed)</b></p>	<ul style="list-style-type: none"> <li>• Call for nearby help upon finding the victim unresponsive.</li> <li>• Continue to assess the breathing and pulse simultaneously.</li> <li>• Activate the emergency response system or call for backup.</li> </ul>	<ul style="list-style-type: none"> <li>• Check for responsiveness.</li> <li>• Check for no breathing or no normal breathing.</li> <li>• Call for help.</li> <li>• Check for pulse for no longer than 10 seconds.</li> </ul>	<p>The intent of the recommendation change is to minimize delay and to encourage fast, efficient, simultaneous assessment and response, rather than a slow, methodical, step-by-step approach.</p>
<p><b>C-A-B sequence</b></p> <p><b>(Part 1, BLS Competency Testing; Apply update throughout course as needed)</b></p>	<p>Although the amount and quality of supporting data are limited, providers should maintain the sequence from the 2010 Guidelines by initiating CPR with C-A-B over A-B-C.</p>	<p>Initiate CPR for infants and children with chest compressions rather than rescue breaths (C-A-B rather than A-B-C). CPR should begin with 30 compressions (by a single rescuer) or 15 compressions (for resuscitation of infants and children by 2 healthcare providers) rather than with 2 ventilations.</p>	<p>In the absence of new data, the sequence has not been changed. Consistency in the order of compressions, airway, and breathing for CPR in victims of all ages may be easiest for rescuers who treat people of all ages to remember and perform. Maintaining the same sequence for adults and children offers consistency in teaching.</p>

	<b>New</b>	<b>Old</b>	<b>Rationale</b>
<b>Chest compression depth</b>	Rescuers should provide chest compressions that depress the chest at least one third the anteroposterior diameter of the chest in pediatric patients (infants [younger than 1 year] to children up to the onset of puberty). This equates to approximately 1.5 inches (4 cm) in infants to 2 inches (5 cm) in children. Once children have reached puberty (ie, adolescents), the recommended adult compression depth of at least 2 inches (5 cm) but no greater than 2.4 inches (6 cm) is used.	To achieve effective chest compressions, rescuers should compress at least one third of the anteroposterior diameter of the chest. This corresponds to approximately 1.5 inches (about 4 cm) in most infants and about 2 inches (5 cm) in most children.	One adult study suggested harm with chest compressions greater than 6 cm, resulting in a change in the adult BLS recommendation to include an upper limit for chest compression depth; the pediatric experts accepted this recommendation for adolescents beyond puberty. A pediatric study observed improved 24-hour survival when compression depth was greater than 51 mm (2 inches). Judgment of compression depth is difficult at the bedside, and the use of a feedback device that provides such information may be useful if available.
<b>Chest compression rate</b>	To maximize simplicity in CPR training, the adult chest compression rate of 100 to 120/min is used for infants and children.	Push at a rate of at least 100 compressions per minute.	One adult registry study demonstrated inadequate chest compression depth with extremely rapid compression rates. To maximize educational consistency and retention, in the absence of pediatric data, pediatric experts adopted the same recommendation for compression rate as is made for adult BLS.

	<b>New</b>	<b>Old</b>	<b>Rationale</b>
<b>Compression-only CPR</b>	Conventional CPR (rescue breaths and chest compressions) should be provided for infants and children in cardiac arrest. The asphyxial nature of most pediatric cardiac arrests necessitates ventilation as part of effective CPR. However, because compression-only CPR can be effective in patients with a primary cardiac arrest, if rescuers are unwilling or unable to deliver breaths, we recommend rescuers perform compression-only CPR for infants and children in cardiac arrest.	Optimal CPR in infants and children includes both compressions and ventilations, but compressions alone are preferable to no CPR.	Large registry studies have demonstrated worse outcomes for presumed asphyxial pediatric cardiac arrest, which comprise the vast majority of out-of-hospital pediatric cardiac arrest, treated with compression-only CPR. In 2 studies, when conventional CPR (compressions plus breaths) was not given in presumed asphyxial arrest, outcomes were no different from when victims did not receive any bystander CPR. When a presumed cardiac etiology was present, outcomes were similar whether conventional or compression-only CPR was provided.
<b>Ventilation during CPR with an advanced airway</b>  <b>(Part 12: Identification and Management of Cardiac Arrest)</b>	With an advanced airway in place, deliver 1 breath every 6 seconds (10 breaths per minute) while continuous chest compressions are being performed.	When an advanced airway (ie, endotracheal tube, Combitube, or laryngeal mask airway) is in place during 2-person CPR, give 1 breath every 6 to 8 seconds without attempting to synchronize breaths between compressions (this will result in delivery of 8 to 10 breaths per minute).	This simple single rate for adults, children, and infants—rather than a range of breaths per minute—should be easier to learn, remember, and perform.