We R CPR Blog

Series: ACLS

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**ACLS Series Part 2: BLS for ACLS**

I can see the looks of confusion and annoyance on the students’ faces. From paramedics to RN’s to MD’s, all who come to an ACLS class at We R CPR™ are guaranteed to face a BLS (basic life support) skills checkoff. Why is this? After all, you are required to be BLS certified before ever coming to ACLS. Why so much emphasis on such simple skills?

 Welcome back to the We R CPR blog. My name is Noah Harris and it’s my goal to help you succeed as a healthcare professional. Thank you for joining me for the next blog entry in the ACLS series. In this post, I would like to discuss the importance of mastery of BLS skills as ACLS providers. BLS is the very foundation of all we do in ACLS. If proper BLS is not taking place- advanced skills will be mostly ineffective. The American Heart Association (AHA) understands this key concept and constantly emphasizes it through the guidelines. For example, with the 2020 guidelines, AHA introduced the new role of *CPR coach*. The role of the CPR coach on the resuscitation team is to simply monitor the BLS aspect of the resuscitation attempt. This guarantees that the most important thing we can do for a cardiac arrest victim’s chance of survival is taking place, high quality CPR. Let’s discuss what it means to perform high quality CPR and the key aspects of BLS.

High quality CPR consists of many different aspects and skills. As providers, we must master every portion. For every minute, a victim of cardiac arrest does not receive high quality CPR, the chance of survival decreases by roughly 11%. First, there must be recognition of cardiac arrest. The most important thing here is to remember if someone is unresponsive, pulseless, and apneic then we must act immediately by starting CPR. A key point to note here is that agonal breathing is NOT normal breathing and is a sign of cardiac arrest. Agonal breaths are often seen in the first few minutes of arrest and typically present as slow, irregular gasps. If we find a victim unresponsive, we should first activate the emergency response system (911 or in hospital response) and make sure someone is grabbing either an AED or a crash cart with a monitor on it. This is because in addition to high quality CPR the best thing we can do for a victim’s chance of survival is early defibrillation, which can only be performed with a monitor or AED. After activating the response system, we must check for breathing and a pulse. Do this for no longer than 10 seconds. Once you have confirmed there is no breathing or pulse, begin chest compressions. Place the heel of one hand directly in the center of the chest on the lower half of the breastbone above the xiphoid process (compressing on this can cause internal injury and trauma) and interlace your other hand on top of the one on the chest. Push hard and fast at a depth of 2-2.4 inches for adults. Push at a rate of 100-120 bpm (sing “Staying Alive” by the Bee Gees in your head) and allow for full chest recoil in between each compression. This allows the heart to refill with blood. Until there is an advanced airway in place, such an endotracheal tube (ETT) or supraglottic airway device, after 30 chest compressions, deliver two breaths. If you have multiple rescuers, someone can do this with a BVM (bag valve mask) connected to high flow oxygen. If you are by yourself, you can do this with a pocket mask or face shield with a one-way valve. If none of these items are available you can, at your own discretion, deliver mouth to mouth breaths. If you choose not to deliver mouth to mouth breaths, do continuous chest compressions not stopping after 30. If you are delivering mouth to mouth to breaths or breaths with a face shield, be sure to pinch the nose. Regardless, make sure you open the airway first by using the head tilt chin lift method. When delivering breaths watch for chest rise and fall. This is the best indicator of affective breaths. Only give enough breath to observe chest rise and fall being careful to avoid hyperventilation. Once an advanced airway is in place, do not stop after 30 compressions. Perform continuous compressions delivering one breath every 6 seconds.

As soon as a monitor or AED becomes available, use it. If you’re using an AED, it will analyze the rhythm for you and determine if a shock is needed. If using a manual defibrillator, you must identify the rhythm. If the rhythm is identified as ventricular fibrillation or pulseless ventricular tachycardia, a shock must be delivered. Follow your manufacturers recommendations for shock dosages. Resume CPR immediately after a shock is delivered. If the rhythm is identified as asystole or pulseless electrical activity (PEA), do not deliver a shock, and immediately resume CPR.

These skills are the very foundation of what we do as advanced providers and we will build off these as we discuss future topics. It is crucial you constantly review and practice these skills. Our ACLS skills are dependent upon a mastery of BLS skills. Without high quality CPR and early defibrillation (when indicated), the chance of survival for our patients is nearly nonexistent. Even with the best CPR, we are only performing around 25-30% of that person’s normal cardiac output. This is why our skills must be top notch. There is no room for poor CPR. People’s lives are in our hands, let us study and train like it.

Once again, thank you so much for joining me. I invite you to continue with me as we discuss future topics. I encourage you to visit <https://www.wercpr.com/courses/> and check out the courses we offer here at We R CPR™. As always, feedback on the blog is warmly welcomed. Until next time!

-Noah Harris, EMT-P