

## Summary of changes in the new HeartCode™ ACLS program

### Profiles Specific to Role/Job:

- In the new course, there is only one version; there are no longer separate profiles according to provider role (example: Physician, Nurse, etc.).
- The reasoning for removing the role-specific identification is that all healthcare providers who take an ACLS course should demonstrate knowledge and understanding of ACLS algorithms, whether or not they would perform all of the actions in their current roles. For example, a healthcare provider who may not normally establish IV access should be able to identify the need for IV access to be established to administer ACLS core drugs. Providers will still be asked to specify a profession when claiming CME points after completing the program.

### Overall Look/Feel/Function:

#### Menu:

- Tabs have been added to the menu screen for easier navigation of patient treatment options

#### Graphics:

- Graphical user interface has been changed to avoid floating windows which would cover up other actions

#### Stop Watch:

- A “stop watch” clock function has been added that allows the student to time specific actions (Example: 2 minutes of CPR)

#### Introductions/Student tutorials:

- The detailed instruction in the introductions has been improved indicating how to navigate the course, what to expect, etc.

#### AHA Texts:

- No more use of Adobe Reader to read AHA texts. The full textbook(s) are still embedded in the course content.

### Cases:

In some cases, algorithms have been consolidated, and in other cases there have been additions. The course still contains 10 patient cases that cover all ACLS algorithms.

- The previous Cardiac Arrest patient case (Brad Stephens) has been made more specific for the review of the BLS algorithm only
- Addition of a second Stroke case, that is not eligible for fibrinolytics
- Changed learning objectives for 3 patient cases and replaced with 3 new patients: Walter Hampton, David Miller, Paul Smith
- 2 that result in megacode scenarios
  - Bradycardia -> VF -> Asystole
  - Tachycardia -> VF -> PEA -> Sinus
- 1 Respiratory Arrest
- The 3 patients who are no longer in the program are: Nathan Meagher (PEA), Warren Clark (AED case), Kevin King (Tachycardia)

**Drugs:**

- Reduced existing drugs list from approximately 100 to the 17 core ACLS drug inventory
- Added “conscious sedation” as a generic drug
- Added Heparin
- Added Fibrinolytics

**Actions:**

- Changed CT scanner from a transfer option to a feature that takes place during the simulation with proper response
- Added IO administration route
- Added five-point auscultation feature
- Added NIH score check for stroke case progression
- Added fibrinolytic check list as a separate feature
- Removed ability to click on objects for treatment such as the AED

**CPR:**

- Reduced pauses in CPR significantly
- Added rescuers changing positions after every rhythm check
- “Call for help” (where appropriate) has been assigned a more prominent place in the interface
- Failed IV insertion feedback has been changed to make it more clear that the user should try in another location

**Debriefing:**

- Changed to two detailed levels of debriefing compared to four previously

**Medical Record:**

- Completely redesigned for greater realism and navigation
- Added better logging of actions and tests including all obtained 12-lead ECGs

**HeartCode ACLS Part 2 Updates:**

- Improved manikin connection stability
- The debriefing will give additional feedback on performance

# New HeartCode™ ACLS Features Screenshots

**HeartCode™ ACLS**

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OXYGEN RATE: 8 L/MIN

00:36  
SCENARIO TIME

00:00  
CODE CLOCK

RESPONSE	AIRWAY	BREATHING	CIRCULATION	EXAMINE	DRUGS & MANAGE IV/IO	LAB & DIAGNOSTICS	MISC
		<b>BREATHING</b> Check breathing Attach Pulse Oximeter Administer 2 initial ventilations Ventilate Supplementary oxygen Attach Capnometer Needle decompression Auscultate Chest tube	<b>SUPPLEMENTARY OXYGEN</b> Facial cannula Oxygen with a flow Simple oxygen mask Oxygen mask with nebulizer Non-rebreather mask Warm and humidify oxygen				

HR -?-, SpO2 -?-, Temp -?-, etCO2 -?-, NIBP -?-, Medical record, Transfer patient

**HeartCode™ ACLS**

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00:31  
SCENARIO TIME

00:00  
CODE CLOCK

RESPONSE	AIRWAY	BREATHING	CIRCULATION	EXAMINE	DRUGS & MANAGE IV/IO	LAB & DIAGNOSTICS	MISC
<b>DRUGS &amp; IV</b> Administer drugs Manage IV/IO Flush IV	<b>SELECT DRUG</b> Adenosine Amiodarone Aspirin Atenolol Atropine Conscious sedation Dopamine Epinephrine Fibrinolytics	Heparin Lidocaine Magnesium sulfate Metoprolol Morphine Nitroglycerin Saline Vasopressin	<b>SELECT ROUTE</b> IV push Oral	<b>SELECT DOSE</b> <b>METOPROLOL</b> Patient weight: 110 kg SELECT IV ACCESS: Right arm SELECT DOSE: 0.0 mg <input type="checkbox"/> Slow injection			

HR -?-, SpO2 -?-, Temp -?-, etCO2 -?-, NIBP -?-, Medical record, Transfer patient

# New HeartCode™ ACLS Features Screenshots

The screenshot displays the HeartCode ACLS simulation interface. The top header includes the 'HeartCode ACLS' logo and the American Heart Association 'Learn and Live' logo. The interface is split into two tabs: 'BASIC VIEW' and 'ADVANCED VIEW'. The 'ADVANCED VIEW' is active, showing a detailed log of actions for a patient named Brad Stephens. The log includes timestamps and descriptions of actions, such as 'You arrived at the patient's side' at 00:00 and 'You started CPR with a ratio of 30:2' at 00:43. Patient status updates are provided at 00:10, 00:43, and 01:02, all indicating 'Ventricular fibrillation' and 'Unresponsive' status. At the bottom of the log, a summary box states: 'You were successful in obtaining return of spontaneous circulation (ROSC) in this patient. Applying the correct ACLS protocols is vitally important in a time-critical event like a cardiac arrest.' To the right of this summary, a large green '80%' indicates the 'FINAL SCORE'. Two buttons, 'Return to Main Menu' and 'Complain', are located at the bottom left of the interface.

HeartCode™ ACLS

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BASIC VIEW    ADVANCED VIEW

**Brad Stephens**  
DIAGNOSIS: **VE ARREST**

00:00 You arrived at the patient's side.  
00:05 You talked to the patient, and he did not respond.  
00:10 Patient status--ECG: Ventricular fibrillation . Heart rate: - . Pulse: Absent . Blood pressure: - mmHg .  
Respiration: 0 . Responsive state: Unresponsive . SpO2: - . Temp.: 98.6 F  
00:13 You performed a tap and shout. The patient was unresponsive. It is correct to assess responsiveness here.  
00:16 You phoned the medical emergency team for help. It was correct to phone for help as there was no response from the patient. The sooner trained help reaches the patient, the better the patient's chances of surviving cardiac arrest.  
00:18 You performed a head tilt-chin lift.  
00:20 You checked the breathing. There are no breath sounds. The chest is not moving up and down. His skin is cold and blue. It is correct to check for breathing.  
00:30 You gave the patient 2 breaths. It is correct to give 2 breaths at this point.  
00:33 You checked the pulse at the neck. There is no pulse. It was correct to assess circulation.  
00:43 You started **CPR** with a ratio of 30:2. It was correct to perform **CPR** at this point.  
00:43 Patient status--ECG: Ventricular fibrillation . Heart rate: - . Pulse: Absent . Blood pressure: - mmHg .  
Respiration: 0 . Responsive state: Unresponsive . SpO2: - . Temp.: 98.6 F  
00:48 You turned the **oxygen** on.  
01:02 Patient status--ECG: Ventricular fibrillation . Heart rate: - . Pulse: Absent . Blood pressure: - mmHg .  
Respiration: 0 . Responsive state: Unresponsive . SpO2: - . Temp.: 98.6 F  
01:04 You turned the defibrillator on.

You were successful in obtaining return of spontaneous circulation (ROSC) in this patient. Applying the correct ACLS protocols is vitally important in a time-critical event like a cardiac arrest.

**80%**  
FINAL SCORE

Return to Main Menu    Complain