

## ACLS Helpful Hints 2015 Guidelines – Revised for May 2016

Also see [www.heart.org/eccstudent](http://www.heart.org/eccstudent): **The code is found in the ACLS Provider manual page ii.**

The ACLS exam is 50 questions. Passing score is 84% or you may miss 8 questions. For those persons taking ACLS for the first time or renewing with a current card, exam remediation is permitted should you miss more than 8 questions on the exam. Viewing the ACLS book ahead of time with the online resources is very helpful. The American Heart Association link is [www.heart.org/eccstudent](http://www.heart.org/eccstudent) has a pre-course self-assessment, supplementary written materials and videos. **The code for these online resources is in the ACLS Provider manual page ii.** The code is ACLS15. Basic Dysrhythmia knowledge is required. The exam has at least 9 strips to interpret.

### BLS Overview - CAB



Push Hard and Fast-Repeat every 2 minutes

\*If person unresponsive next step is to check breathing and pulse. Pulse check no more than 5-10 seconds. Anytime there is no pulse or unsure - COMPRESSIONS

### Elements of good CPR

- Compressions
  - Rate-at least 100 - 120
  - Compression depth at least 2 inches, not more than 2.4 inches or 6 cm
  - Switch compressors every 2 min or 5 cycles
  - Recoil
  - Minimize interruptions (less 10 secs)
- \*Ventilation
  - With perfusing rhythm squeeze the bag once every 5 to 6 seconds
  - Excessive ventilation decreases cardiac output
- Fatal mistake to interrupt compressions – can compress while charging.

### Stroke

- Cincinnati Pre-Hospital Stroke Scale
- Facial Droop, Arm Drift, Abnormal Speech
- \*Non-contrast CT scan of the head
- \*Start fibrinolytic therapy as soon as possible
- \*Alerting the hospital will expedite patient's care on arrival.

### Acute Coronary Syndromes, STEMI

\*STEMI door-to-balloon within 90 minutes  
\*12 Lead for CP, epigastric pain, or rhythm change  
Recommended dose of aspirin is 160 – 325 mg  
Right ventricular MI - caution with NTG

### \*Cardiac Rhythm Strips to Interpret

- ✓ Ventricular Tachycardia
  - Stable
  - Unstable
  - Monomorphic
- ✓ Supraventricular tachycardia, unstable
- ✓ Heart Blocks
  - Second-degree atrioventricular Type I
  - Second-degree atrioventricular Type II
  - Third degree atrioventricular
- ✓ Ventricular Fibrillation
- ✓ PEA, Pulseless Electrical Activity

### Bradycardia

Need to assess stable versus unstable. If stable, monitor, observe, and obtain expert consultation.

#### If unstable...

- Atropine 0.5mg IV. Can repeat Q 3-5 minutes to 3 mg  
Maximum dose is 3mg (Including heart blocks)
- If Atropine ineffective
  - Dopamine infusion (2-10mcg/kg/min)
  - Epinephrine infusion (2-10mcg/min)
  - Transcutaneous pacing

### Tachycardia with a pulse

- If unstable (wide or narrow)-go straight to synchronized cardioversion (sedate first)
- If stable narrow complex
  - obtain 12 lead
  - vagal maneuvers
  - \*-adenosine 6mg RAPID IVP, followed by 12mg

### Pulseless Rhythms - Cardiac Arrest - CPR

Oxygen, monitor, IV, Fluids, Glucose Check

\*Agonal gasps are a likely indicator

- ♥ 2 minute cycles of compressions, shocks (if VF/VT), and rhythm checks.
- ♥ \*Epinephrine 1 mg first every 3-5 minutes (preferred method peripheral IV)

### Shockable rhythms

#### \*Defibrillation

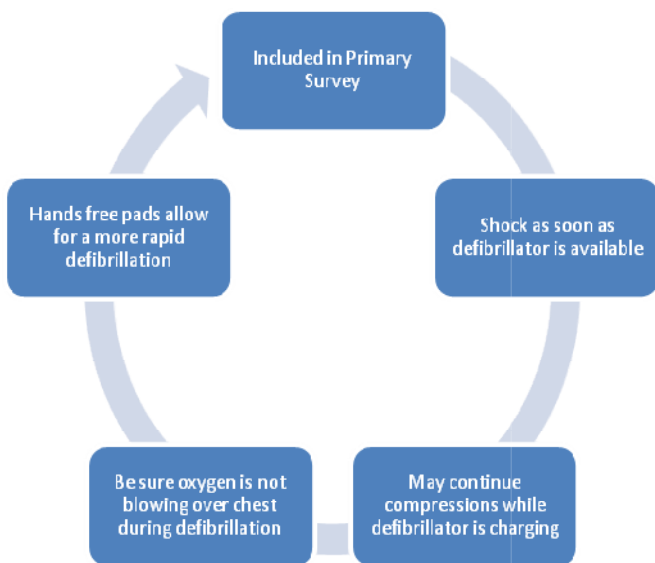
- Ventricular Fibrillation (VF)
- Ventricular Tachycardia (VT) without pulse
- Biphasic: 120-200J Monophasic: 360J
- \*Refractory – Amiodarone 300 mg, then 150 mg
- \*After defibrillation resume CPR, starting with chest compressions

#### \*Synchronized Cardioversion

Unstable VT, unstable SVT

### Non-Shockable Rhythms

-PEA -Asystole

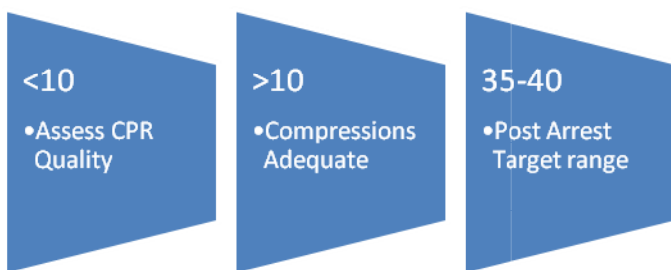


### \*Waveform Capnography in ACLS (PETCO2)

- Allows for accurate monitoring of CPR
- \*Most method to confirm and monitor ETT placement

### \*Team Dynamics

- Closed Loop – repeat orders
- Incorrect order? – address immediately
- Task out of scope? – ask for new task or role
- Clearly delegate tasks



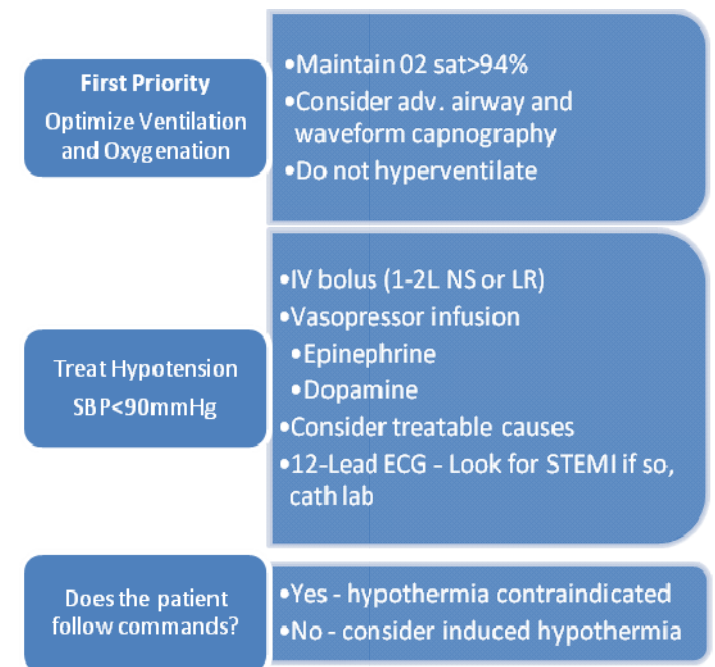
### Treat reversible causes (H's and T's)

- Hypoxia or ventilation problems
- Hypovolemia
- Hypothermia
- Hypo /hyper kalemia
- Hydrogen ion (**acidosis**)
- Tamponade, cardiac
- Tension pneumothorax
- Toxins – poisons, drugs
- Thrombosis – coronary (AMI) – pulmonary (PE)

### Return of Spontaneous Circulation (ROSC)

#### Post Resuscitation Care

- ✓ 12 Lead
- ✓ \*Coronary reperfusion-capable center is the most appropriate EMS destination.
- ✓ \*Hypothermia if DOES NOT follow verbal commands (**target temperature, at least 24 hours, 32 to 36 degrees C**)



### Points to Ponder

- \*Medical Emergency Teams (MET)/ Rapid Response Teams (RRT) can improve outcome by identifying and treating early clinical deterioration.
- \*OPA – measure from corner of mouth to angle of the mandible
- \*Minimal systolic blood pressure is 90
- Don't suction for more than 10 seconds
- \*Pulse oximeter reading low, give oxygen