

ACLS TIPS

Airway

- Remember to attach oxygen to bag, or else you will be delivering 21% oxygen rather than 100% oxygen
- For adults, 1 breath every 6 seconds, both with and without an advanced airway (ILCOR 2020)
- COVID pandemic: important to have HEPA filter attached to mask

Code

- Teamwork competencies important for code success, e.g., closed-loop communication, sharing mental model, verbalizing, constructive intervention. Defibrillator role can be a "CPR Coach" as well.
- Minimize interruptions in CPR by: doing compressions while charging, immediate compressions after shock, switching compressors during reassessments, pre-charging prior to stopping CPR for rhythm check
- Once the person loses a pulse, immediately start CPR. At your earliest convenience, once everything is set up (e.g., CPR backboard, defib pads attached), hold CPR to determine if rhythm is shockable. However, if your eyes "registered" the rhythm before CPR was started, you can immediately act on that rhythm; for example, if you "saw" or VT before CPR was started, act on it by charging to shock.
- Shockable rhythms (VF, pVT): epi after 2 shocks
- Non-shockable rhythms (PEA, asystole): epi right away
- Simpler to time epi every 4 minutes. Since reassessments are every 2 minutes, after 2 reassessments, it's time for epi.
 - o Shockable: shock, shock, epi (repeat)
 - Bonus amio after 3rd and 5th shocks
 - Shock, shock, epi, shock, amio, shock, epi, shock, amio... then shock, shock, epi on loop
 - o Non-shockable: epi, nothing, nothing (repeat)
- When to give the FIRST epi depends on what is the initial rhythm. If shockable, first epi is AFTER 2 shocks. If non-shockable, first epi is IMMEDIATE. Subsequent epi is timed every 4 minutes (after every 2 reassessments) if the patient does not have a pulse, no matter how patients move between algorithms.
- Consider fingers on femoral pulse as team leader to assess CPR quality and for easy pulse reassessments
- Get into habit of checking pulse and rhythm together during the 2-minute reassessment marks. Lead disconnects and motion artifacts may confuse; confirm with pulse check.

Brady

- Reversible causes 1st. ECG: ?STEMI.
- Atria = parasympathetic fibres and sympathetic fibres. Ventricles = sympathetic fibres. Atropine works on parasympathetic pathway, so that's why works for blocks supraventricular but not for blocks ventricular. Therefore, TCP if Mobitz II / 3rd degree block.
- Atropine may work for inferior MI: ischemia to AV node = narrow complex escape rhythm
- Atropine likely not work for anterior MI: ischemia to distal conduction system, wide-complex
- Atropine dose is now 1mg (ILCOR 2020)
- Capture thresholds typically 20mA-120mA (Kaplan's Essentials of Cardiac Anesthesia 2018)

Tachy

- Cardioversion (sync): 100J regular, 200J irregular (exception: 200J unsync for polymorphic VT)
- Modified Valsalva: <https://rebelem.com/the-revert-trial-a-modified-valsalva-maneuver-to-convert-svt/>
- Warning: amiodarone has AV nodal blocking properties should be avoided in afib with WPW (irregular polymorphic wide-complex tachycardia). Blocking the AV node sends rapid signals down bypass tract of WPW resulting in VF.
- Adenosine for regular, monomorphic wide-complex tachycardia: may work because it's actually SVT with aberrancy. Some VT are sensitive to adenosine too, as per literature, but not common.
- Non-DHP CCB: verapamil, diltiazem

Decision points

- Code: shockable or not shockable. Shock IMMEDIATELY if shockable. Epi if non-shockable.
- Tachy: stable or unstable. Cardiovert unstable. Narrow or wide for stable.
- Brady: poor perfusion or not.