

2020 Guidelines and Algorithms Update for BLS - ACLS - PALS

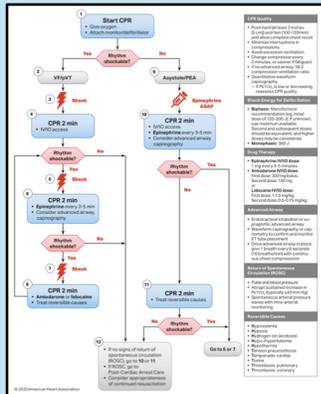
BLS Updates

- ✓ Early CPR is emphasized: C-A-B sequence.
- ✓ Apply AED ASAP.
- ✓ Use CPR coach with Audio Visual feedback.
- ✓ A sixth link (Recovery) has been added to the Chain of Survival.
- ✓ Enhanced algorithms and visual aids provide guidance for resuscitation team.
- ✓ New Opioid-Associated Arrest Algorithm for Lay Responders and healthcare workers.

Adult Chain of Survival



ACLS - Cardiac Arrest



- ✓ Early CPR, defibrillation and epinephrine administration is emphasized.
- ✓ Use end tidal CO2 and arterial line BP monitoring encouraged.
- ✓ Medication changes: Lidocaine 1-1.5mg/kg or Amiodarone after Epi. Atropine dose is 1mg every 3-5 minutes for unstable bradycardia.
- ✓ IV access preferred route of medicine administration.
- ✓ ROSC: close attn to oxygenation and BP is crucial. Perc coronary intervention, multimodal neuroprognostication, targeted temperature management are emphasized to prevent hyperoxia, hypoxemia, hypotension.

- ✓ Post-ROSC: caregivers and patients should be given support for their physical, cognitive, and psychosocial needs.
- ✓ Debriefing for healthcare workers is beneficial to support well-being.
- ✓ New Cardiac Arrest in Pregnancy Algorithm has been added to improve the chance of successful resuscitation.
- ✓ New Opioid-Associated Emergency Algorithms added for lay and trained rescuers.
- ✓ Three options for AHA courses:
 1. Instructor lead training
 2. Online Heartsaver
 3. Resuscitation Quality Improvement, or RQI® is an AHA program that uses low-

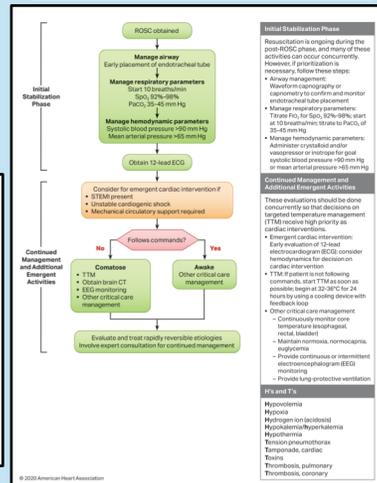
dose, high-frequency training to deliver quarterly coursework and practice to support the mastery of high-quality CPR skills. Bystander CPR training should target specific socioeconomic, racial, and ethnic populations who have historically exhibited lower rates of bystander CPR. CPR training should address gender-related barriers to improve rates of bystander CPR performed on women.



PALS Updates

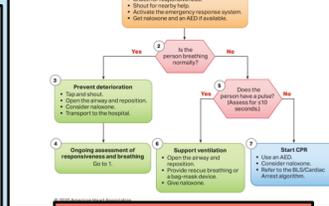
- ✓ 1 breath every 2 to 3 seconds (20-30/min).
- ✓ Use cuffed endotracheal tube (ETT) > uncuffed ETT.
- ✓ No cricoid pressure recommended.
- ✓ Early epinephrine for asystole and PEA.
- ✓ Use Arterial BP line and etCO2 capnography.
- ✓ Post ROSC: observe for seizures.
- ✓ Post-ROSC: both caregivers and cardiac arrest patients should be given support for their physical, cognitive, and psychosocial needs.
- ✓ Titrate fluid management and add Epi or Norepi gtt's.
- ✓ Opioid OD management with CPR and naloxone.
- ✓ Use extracorporeal life support / ECMO.
- ✓ Special considerations for Congenital Heart Disease(CHD) and single ventricle physiology.
- ✓ Pulmonary hypertension management: use of inhaled nitric oxide, prostacyclin, analgesia, sedation, neuromuscular blockade, alkalosis induction, or ECLS therapy.

ROSC: Return of Spontaneous Circulation

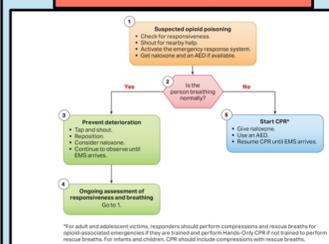


Opioid-Associated Arrests:

1. For healthcare workers



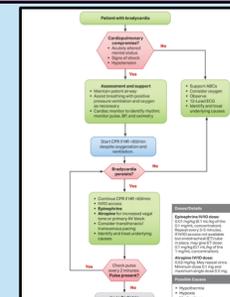
2. For Lay Responders



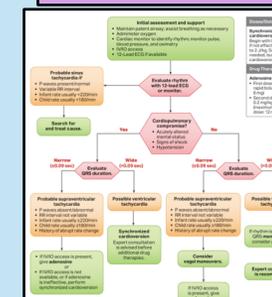
Pediatric Chain of Survival



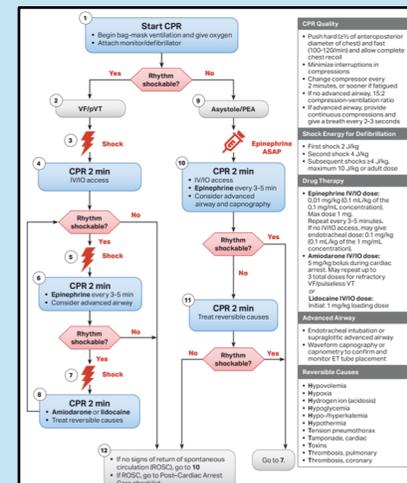
Pediatric Bradycardia with a Pulse



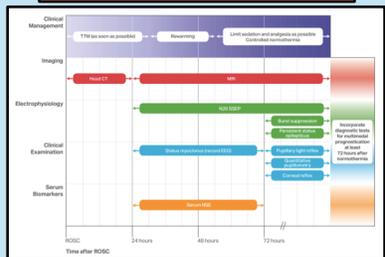
Pediatric Tachycardia with a Pulse



PALS Cardiac Arrest Algorithm



Multimodal Neuroprognostication



Pregnancy

