ACLS Cardiac Arrest Algorithm for Suspected or Confirmed COVID-19 Patients

Updated April 2020

**Don PPE**
- Limit personnel
- Consider resuscitation appropriateness

**Start CPR**
- Give oxygen (limit aerosolization)
- Attach monitor/defibrillator
- Prepare to intubate

**Prioritize Intubation / Resume CPR**
- Pause chest compressions for intubation
- If intubation delayed, consider supraglottic airway or bag-mask device with filter and tight seal
- Connect to ventilator with filter when possible

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider mechanical compression device

**Rhythm shockable?**
- Yes
- Shock
- CPR 2 min
- Epinephrine every 3-5 min
- Consider mechanical compression device

**Rhythm shockable?**
- No
- CPR 2 min
- Amiodarone or lidocaine
- Treat reversible causes

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**If no signs of return of spontaneous circulation (ROSC), go to 10 or 11**
- If ROSC, go to Post-Cardiac Arrest Care

**Shock Energy for Defibrillation**
- Biphasic: Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered.
- Monophasic: 360 J

**Advanced Airway**
- Minimize closed-circuit disconnection
- Use intubator with highest likelihood of first pass success
- Consider video laryngoscopy
- Endotracheal intubation or supraglottic advanced airway
- Waveform capnography or capnometry to confirm and monitor ET tube placement
- Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions

**Drug Therapy**
- Epinephrine IV/IO dose: 1 mg every 3-5 minutes
- Amiodarone IV/IO dose: First dose: 300 mg bolus. Second dose: 150 mg.
- Lidocaine IV/IO dose: First dose: 1-1.5 mg/kg. Second dose: 0.5-0.75 mg/kg.

**Return of Spontaneous Circulation (ROSC)**
- Pulse and blood pressure
- Abrupt sustained increase in PetCO₂ (typically ≥40 mm Hg)
- Spontaneous arterial pressure waves with intra-arterial monitoring

**Reversible Causes**
- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypo-/hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary

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