

Mount Sinai Health System

Person Under Investigation (PUI)/COVID-19 Positive

Cardiac Arrest Guide

Important Things to Consider Before ACLS

- Enter the room after donning PPE - use N95 mask, face shield or other eye protection, bouffant, gown, gloves, and other equipment as indicated.
- Minimize staff and throughput within the room. **Do not enter the room if you are not needed.**
- Use automated external compression device (LUCAS) if available.
- If patient is already intubated: perform CPR, utilize BVM with PEEP valve, while leaving the HEPA filter in line to prevent aerosolization.
- Can consider clamping the ET while switching from the ventilator to the BVM if available
- If the patient is not intubated, proceed with bag valve mask ventilation with a viral filter using the two-person ventilation technique
- The airway should be prioritized once the intubation team arrives.
- Opening of the room door should be kept to a minimum for entering personnel and hand off items.
- Review advanced directives and explore goals of care as appropriate before and during ACLS.

Team Members (up to 7 in room, all wearing PPE):

1. Cardiac Arrest Leader
2. RN N1: Medication administration
3. Licensed Provider: CPR
4. Licensed Provider: CPR (If not using LUCAS)
5. Licensed Provider: Bag mask ventilation (ventilator) (2 handed vice grip)
6. Licensed Provider: Bag mask ventilation (squeezing the bag)
7. Respiratory therapist: Use ONLY two-person bag mask ventilation technique to ensure a seal. Ventilate with a bag valve mask (BVM) with a HEPA filter. Leave HEPA filter and continuous ETCO2 in line, connect BVM with PEEP valve, and bag according to ACLS guidelines.

Team Members (2) outside room, wearing ~~PPE~~:

1. Team member: Remains outside the room in PPE. Supplies medications and hands off materials as well as observes for breach in PPE of providers inside the room. The RN will be responsible for recording in the code narrator.

ACLS Process

1. The person who identifies patient in cardiac arrest (already in the room wearing PPE)
 - a. Activate Cardiac Arrest notification
 - b. Start chest compressions
2. 2nd person to arrive:
 - a. Bring cardiac arrest cart and intubation box outside the room
 - b. Don PPE
 - c. Obtain defibrillator, defibrillator pads, and backboard
 - d. Enter room
 - e. Place backboard

- f. Place defibrillator pads on patient and connect to defibrillator.
 - g. Check for appropriate IV/IO access (2 large bore IVs or IO)
3. 3rd person to arrive: (Designated Code Leader until relieved by Critical Care MD)
- a. Don PPE
 - b. Assist critical care MD in setting up intubation equipment (if the patient is not already intubated) Prior to entering room, gather all needed supplies.
 - c. Brings ACLS medications into the room.
 - Consider: epinephrine x 5; bicarb X 2; calcium x 1; flushes x 10
 - Bring additional supplies including IV fluid and IV start kit into the room.
 - d. Assist with CPR, if LUCAS is not available
4. First Critical Care MD to arrive
- a. Don PPE
 - b. Enter Room
 - c. Assess need for definitive airway. If needed, insert definitive airway. Once airway is secure, proceed to step D. If not needed, proceed to step D.
 - d. Assume Code leader role by announcing role and assigns responsibilities to team members (team members should provide a verbal response with acknowledgment of assignment).
5. Multiple studies have shown poor outcomes for patients with COVID-19 that have cardiac arrest. The code leader should carefully balance the risks to benefits ratio of CPR for each patient to determine when is appropriate for termination of resuscitation.

****Follow standard ACLS protocol**

Intubating during code:

Because the most likely cause of the cardiac arrest in these patients would be a hypoxic respiratory failure, we recommend inserting an endotracheal tube as soon as possible (*Follow the Mount Sinai Health System Airway Management Guide: Appendix 1*).

1. Intubate using video-laryngoscope
2. Inflate the balloon prior to any ventilations.
3. Place a HEPA filter, continuous ETCO₂, and Ballard between ET tube and BVM.

Note: If the patient requires ventilation during the intubation process *only use a 2 person ventilation technique* with the BVM and a HEPA filter. One person uses both hands around the mask to develop a seal with the patients face and the other person squeezes the bag. This will ensure a proper seal and minimize aerosolization.



Post-CPR:

- Doff all PPE except for N95 in room.
- Exit room -> perform hand hygiene
- Doff PPE -> perform hand hygiene
- Debrief