

Cardiac Arrest Management Key Points during COVID Pandemic¹

— Dr. Antony Hsu —

Reduce health care provider exposure to COVID-19 in cardiac arrests

- In a pandemic, there is no emergency. Don appropriate PPE.
- Limit personnel in the room to only those essential for care.
- If EMS comes in with a mechanical device, continue to use it until ROSC is sustained to help limit personnel.

Prioritize oxygenation and ventilation strategies with lower aerosolization risk

- Defibrillate at the earliest feasible opportunity.
- Attach a HEPA filter prior to inserting the ETT.
- Video laryngoscopy should be used for intubation if available.
- Avoid ventilating with the bag-mask; use passive oxygenation.

Consider the appropriateness of starting and continuing resuscitation

- Address goals of care when patients need increased levels of care (ICU, transfer, etc). Don't assume the patient wants to be full code.
- Your clinical judgment* is the most important factor in determining the appropriateness of starting and terminating CPR.
- The level of evidence for ECMO is not adequate to inform its utility in treating COVID-19 patients.

Pediatric specifics

- Hand ventilation via bag-valve-mask with a HEPA filter attached (as opposed to adults where passive oxygenation is recommended).

Prone COVID-19 patients at time of arrest (IHCA)

- Leave prone if already intubated (decrease risk of equipment disconnection and aerosolization).
- Rotate to supine if not already intubated.
- Place hands over T7-10 vertebrae to perform compressions in the prone position.
- Place defibrillator pads in an anterior-posterior position if keeping patient in prone position.

* Balance risk of moral hazard with the likelihood of survival. It is reasonable to consider age, comorbidities, and severity of illness in determining the appropriateness of resuscitation and balance the likelihood of success against the risk to rescuers and patients from whom resources are being diverted.¹

The writers of these national guidelines recognize our survival data for cardiac arrest will likely falter in the short-term as much of these guidelines are 'expert-opinion'.

¹ Edelson et al.: Interim Guidance for Life Support for COVID-19. CIRCULATION. Apr 2020