



## Section 2

# Basic Life Support in Adults

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► *This guideline was provided on 24 April 2020 and will be subject to evolving knowledge and experience of COVID-19. As countries are at different stages of the pandemic, there may be some international variation in practice.*

The infection rates with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vary across Europe, and general recommendations for the treatment of patients without confirmed COVID-19 may need to be adjusted based on local risk assessments. For patients with confirmed and suspected COVID-19 the European Resuscitation Council recommends the following changes to basic life support (BLS) based on the recent ILCOR evidence review and commentary:<sup>1,2,3</sup>

General recommendations for BLS in adults by lay rescuers for suspected or confirmed COVID-19

- Cardiac arrest is identified if a person is unresponsive and not breathing normally.
- Responsiveness is assessed by shaking the person and shouting. When assessing breathing, look for normal breathing. In order to minimise the risk of infection, do not open the airway and do not place your face next to the victims' mouth / nose.



- Call the emergency medical services if the person is unresponsive and not breathing normally.
- During single-rescuer resuscitation, if possible, use a phone with a hands-free option to communicate with the emergency medical dispatch centre during CPR.
- Lay rescuers should consider placing a cloth/towel over the person's mouth and nose before performing chest compressions and public-access defibrillation. This may reduce the risk of airborne spread of the virus during chest compressions.
- Lay rescuers should follow instructions given by the emergency medical dispatch centre.
- After providing CPR, lay rescuers should, as soon as possible, wash their hands thoroughly with soap and water or disinfect their hands with an alcohol-based hand-gel and contact the local health authorities to enquire about screening after having been in contact with a person with suspected or confirmed COVID-19.

Recommendations for emergency medical dispatch staff for suspected or confirmed COVID-19 in adults

- For untrained rescuers, provide compression-only instructions.
- Guide rescuers to the nearest automated external defibrillator (AED) when available.
- The risk of COVID-19 should be assessed by emergency medical dispatch as early as possible; if there is a risk of infection, the responding healthcare personnel should be alerted immediately to enable them to take precautions such as donning airborne-precaution personal protective equipment (PPE).
- First responders or trained volunteers should be dispatched or alerted to medical emergencies only if they have access to and training in the use of PPE. If first responders or trained volunteers have only droplet-precaution PPE, they should provide only defibrillation (if indicated), and no chest compressions, for patients with suspected or confirmed COVID-19.

Recommendations for BLS in adults by healthcare personnel for suspected or confirmed COVID-19

- Teams responding to cardiac arrest patients (both in- and out-of-hospital) should be comprised only of healthcare workers with access to, and training in the use of airborne-precaution PPE.
- Applying defibrillator pads and delivering a shock from an AED/defibrillator is unlikely to be an aerosol-generating procedure and can be undertaken with the healthcare provider wearing droplet-precaution PPE (fluid-resistant surgical mask, eye protection, short-sleeved apron and gloves).
- Recognise cardiac arrest by looking for the absence of signs of life and the absence of normal breathing.



- Healthcare professionals should always use airborne-precaution PPE for aerosol-generating procedures (chest compressions, airway and ventilation interventions) during resuscitation.
- Perform chest compressions and ventilation with a bag-mask and oxygen at a 30:2 ratio, pausing chest compressions during ventilations to minimise the risk of aerosol. BLS teams less skilled or uncomfortable with bag-mask ventilation should not provide bag-mask ventilation because of the risk of aerosol generation. These teams should place an oxygen mask on the patient's face, give oxygen and provide compression-only CPR.
- Use a high-efficiency particulate air (HEPA) filter or a heat and moisture exchanger (HME) filter between the self-inflating bag and the mask to minimize the risk of virus spread.
- Use two hands to hold the mask and ensure a good seal for bag-mask ventilation. This requires a second rescuer – the person doing compressions can squeeze the bag when they pause after each 30 compressions.
- Apply a defibrillator or an AED and follow any instructions where available.

## REFERENCES

1. COVID-19 infection risk to rescuers from patients in cardiac arrest. <https://costr.ilcor.org/document/covid-19-infection-risk-to-rescuers-from-patients-in-cardiac-arrest> (accessed April 19<sup>th</sup> 2020)
2. Couper K, Taylor-Phillips S, Grove A, Freeman K, Osokogu O, Court R, Mehrabian A, Morley PT, Nolan JP, Soar J, Perkins GD. COVID-19 in cardiac arrest and infection risk to rescuers: a systematic review Resuscitation <https://doi.org/10.1016/j.resuscitation.2020.04.022>
3. Perkins GD et al. International Liaison Committee on Resuscitation: COVID-19 Consensus on Science, Treatment Recommendations and Task Force Insights. Resuscitation 2020 in press