

Cardiopulmonary resuscitation

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1 Chest compressions during cardiopulmonary resuscitation should be fast pushes

In adult patients with out-of-hospital cardiac arrest, a large multicentre prospective observational study reported that more than 50% of rescuers performing cardiopulmonary resuscitation (CPR) provided chest compressions faster than the recommended rate of 100 per minute.¹ This study showed that patient survival to hospital discharge was highest when compressions were between 100 and 120 per minute,¹ which is reflected in the latest update of the resuscitation guideline from the American Heart Association.²

2 Perishock pauses should be limited to improve survival

Perishock pauses are pauses before and after defibrillatory shock. In a recent large observational study on the impact of perishock pauses in patients with out-of-hospital cardiac arrest, survival to hospital discharge was significantly higher for those patients who received pre-shock pauses of less than 10 seconds and total perishock pauses of less than 20 seconds during CPR.³ Perishock pauses are strong independent predictors of survival from out-of-hospital cardiac arrest; they should be minimized during CPR by performing compressions while the defibrillator is charging.

3 Rescuers may adopt an interrupted or continuous CPR strategy

Bystander CPR is the most important predictor of survival from cardiac arrest. Any interruptions in chest compressions are associated with reduced blood flow and worse survival. For this reason, and because ventilation is a difficult skill to acquire for those who are not health care professionals, the guideline update recommends that members of the public provide uninterrupted continuous chest compressions.² Trained rescuers should provide 30 chest compressions that are interrupted by no more than 10 seconds to provide two ventilations.²

4 Vasopressin offers no advantage over epinephrine in cardiac arrest

There is limited evidence to suggest that vasopressin and epinephrine can similarly improve return of spontaneous circulation and survival to hospital discharge. Because simplicity is important during resuscitation efforts, the guideline update specifically recommends that epinephrine be administered as soon as possible following onset of cardiac arrest.⁴

5 A target temperature should be maintained in the postcardiac arrest period

All adult patients who are comatose with return of spontaneous circulation following cardiac arrest should receive targeted temperature management. The guideline update recommends selecting and achieving a single target temperature between 32°C and 36°C, which should be maintained constantly for at least 24 hours.⁵

References

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