2020 American Heart Association Guidelines for CPR and ECC:

Adult Basic and Advanced Life Support

Cardiac Arrest



Burden of disease Affects individuals across age, gender, race, geography, and socioeconomic status



Out-of-hospital An estimated 400,000 per year in the United States and Canada combined, with a survival rate of 10%



Without a national registry in Canada, the combined numbers are unknown. However, over 290,000 per year in the United States, with a survival rate of 25%

CPR and Access

Real-time audiovisual feedback is suggested as a means to maintain CPR quality.

2020 Guidelines reaffirm the need for early initiation of High-quality CPR



Depth of at least 5 cm (2 inches) for chest compressions

100 to 120/min



Administer Epinephrine Administer as soon as feasible for nonshockable rhythms and after defibrillation has failed in shockable rhythms.



Attempt IV Before IO

Emphasis is on intravenous as first access attempt; if that fails or is not feasible, intraosseous may be used.

Defibrillation



for cardiac arrest due to ventricular fibrillation and pulseless ventricular tachycardia Double sequential defibrillation is shock delivery by 2 defibrillators nearly simultaneously.



The usefulness of double sequential defibrillation has not been established for refractory shockable rhythms.

Routine use of double sequential defibrillation is not recommended at this time.

Special Considerations



Cardiac arrest due to an opioid overdose must be considered and requires individualized treatment.



Administer naloxone for respiratory arrest or if unsure if patient is in cardiac arrest. The most common routes of administration are intravenous, intramuscular, or intranasal.



New in 2020: Algorithms for healthcare providers and lay rescuers for treating overdoses are provided.

Cardiac arrest in pregnancy requires individualized management of resuscitation.

EMS should notify healthcare facilities in advance to ensure all resources are available for both infant and mother.

> Focus on maternal resuscitation, with preparation for perimortem caesarean delivery if necessary.



Perform left uterine displacement during CPR to improve perfusion.

New in 2020







Infographic by Samuel Wilson, MD candidate. Template designed by Sparsh Shah, MD. Edited by Sparsh Shah; Alvin Chin, MD, MSc; and Comilla Sasson, MD, PhD.

Guidelines provided by



cpr.heartandstroke.ca

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BLS Systematic Approach

- Scene Safety !





Get AED on and shock ASAP

Systematic Approach

Initial Impression: (5-10 sec)



Secondary Assessment:

- S. Signs/symptoms?
- A. Allergies?
- M. Meds?
- P. Past Med Hx?
- L. Last Meal Eaten?
- E. Events leading up to this?

Acute Coronary Syndromes Algorithm.



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Adult Bradycardia Learning Station Checklist

Adult Bradycardia Algorithm





Adult Tachycardia With a Pulse Learning Station Checklist

Adult Tachycardia With a Pulse Algorithm





Adult Cardiac Arrest Learning Station Checklist (Asystole/PEA)

Adult Cardiac Arrest Algorithm (Asystole/PEA)





Adult Post-Cardiac Arrest Care Learning Station Checklist



Adult Post-Cardiac Arrest Care Algorithm



Thrombosis, pulmonary Thrombosis, coronary



Figure 8. Recommended approach to multimodal neuroprognostication in adult patients after cardiac arrest.