

Advanced cardiovascular life support (ACLS)

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1. Primary ABCD survey:-

- A airway (head tilt, chin lift)
- B breathing (mouth-to-mouth
rescue breathing)
- C circulation (chest compression)
- D defibrillation (if ventricular
tachycardia or fibrillation)

- **Periarrest:-** oxygen, intravenous line, monitor (O₂ ,IV,monitor)

3. **Secondary ABCD survey:-**

- A airway (intubation)
- B breathing (ventilator)
- C circulation (intravenous access and medications)
- D differential diagnoses (treat underlying causes)

Differential diagnoses

- hypovolemia, hypoxia, acidosis, hypoglycemia, hyper- or hypokalemia, hypothermia
- tamponade, tension pneumothorax, acute coronary syndrome, pulmonary embolism, drug overdose, trauma, acute pulmonary edema, shock, arrhythmias etc.

Arrhythmias

- **Bradycardia:** atropine (maximal dose 3 mg), dopamine, epinephrine, transcutaneous pacing (TCP)
- **Tachycardia:** narrow QRS – adenosine (6mg → 12 mg), verapamil (isoptin)
wide QRS - amiodarone
- **Pulseless electrical activity** = rhythm on monitor but no detectable pulse – epinephrine, atropine, CPR, differential diagnoses
- **Asystole:** epinephrine, atropine, CPR, TCP

■ **Ventricular fibrillation:**

defibrillation 360 J

once → CPR for 5

cycles or 2 minutes

→ drugs (epinephrine,

lidocaine, MgSO_4)

then defibrillation