

# Advanced Paediatric Life Support

## Cardiac Arrest



# Cardiac Arrest

## Objectives

- To understand the structured approach to cardiac arrest
- To describe the protocols to be used
- To introduce the drugs and equipment used

# Cardiac Arrest

## Initial actions



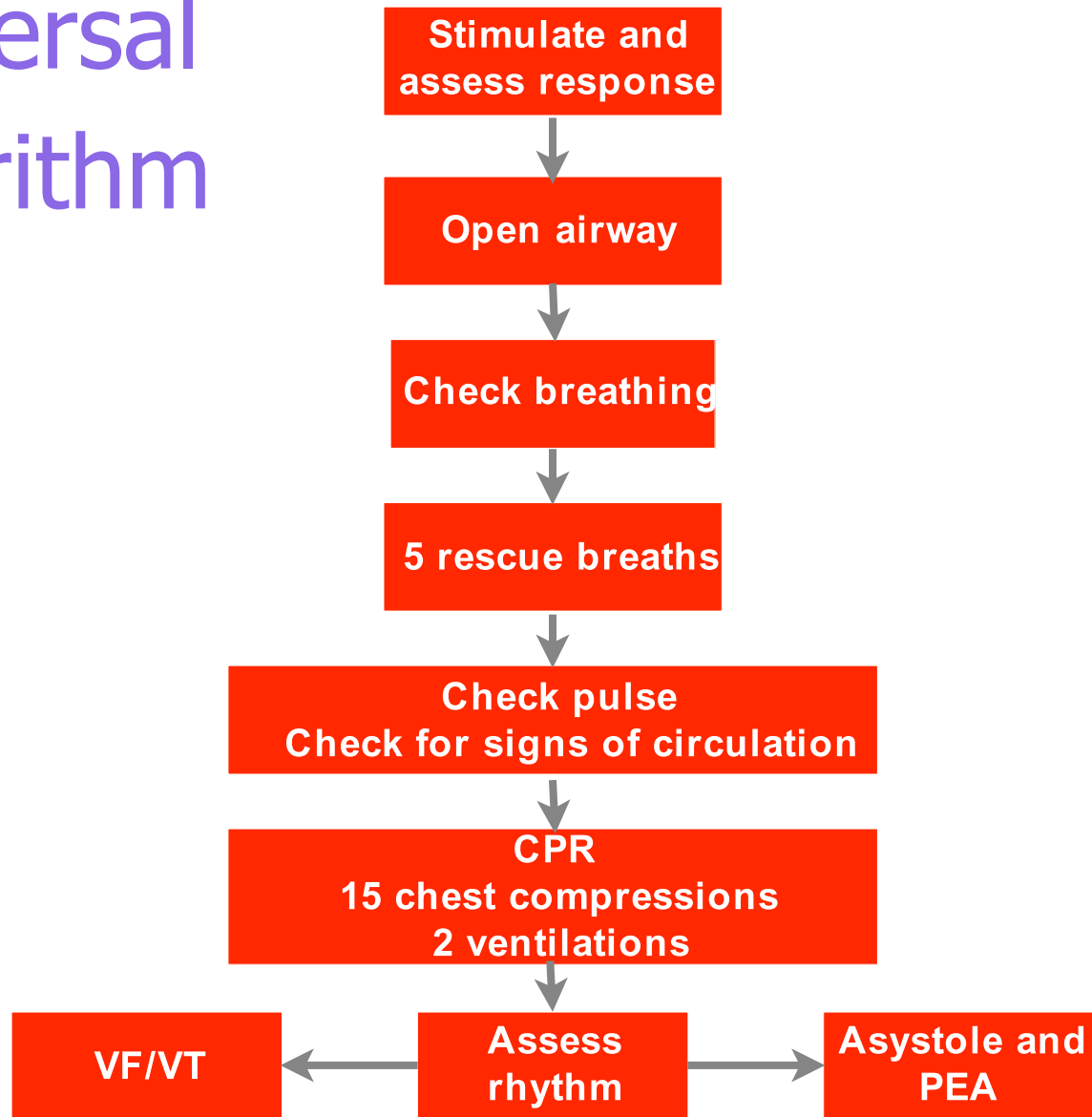
# Cardiac Arrest

## Initial actions

- Commence basic life support
- Secure airway
- Deliver high-flow oxygen
- Assess rhythm



# Universal Algorithm



# 4 Hs and 4 Ts

# 4 Hs and 4 Ts

## 4 Hs

- Hypoxia
- Hypovolaemia
- Hyper/  
hypokalaemia /  
Metabolic
- Hypothermia

# 4 Hs and 4 Ts

## 4 Hs

- Hypoxia
- Hypovolaemia
- Hyper/  
hypokalaemia /  
Metabolic
- Hypothermia

## 4 Ts

- Tension  
pneumothorax
- Cardiac Tamponade
- Toxic substances
- Thromboembolic  
phenomena



# Cardiac Arrest

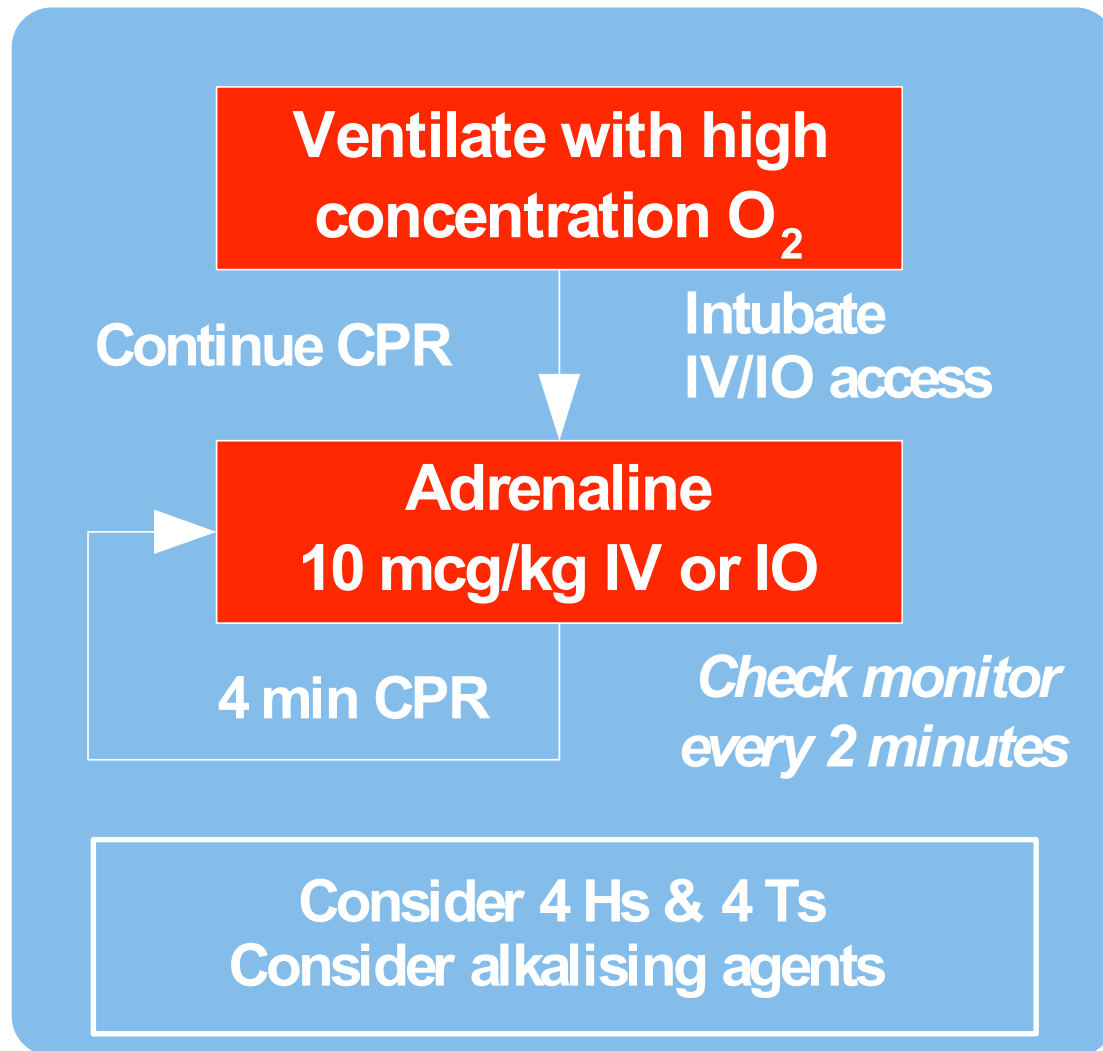
## Rhythms

- Asystole / Pulseless Electrical Activity (PEA)
- Ventricular fibrillation / Pulseless VT

# Asystole



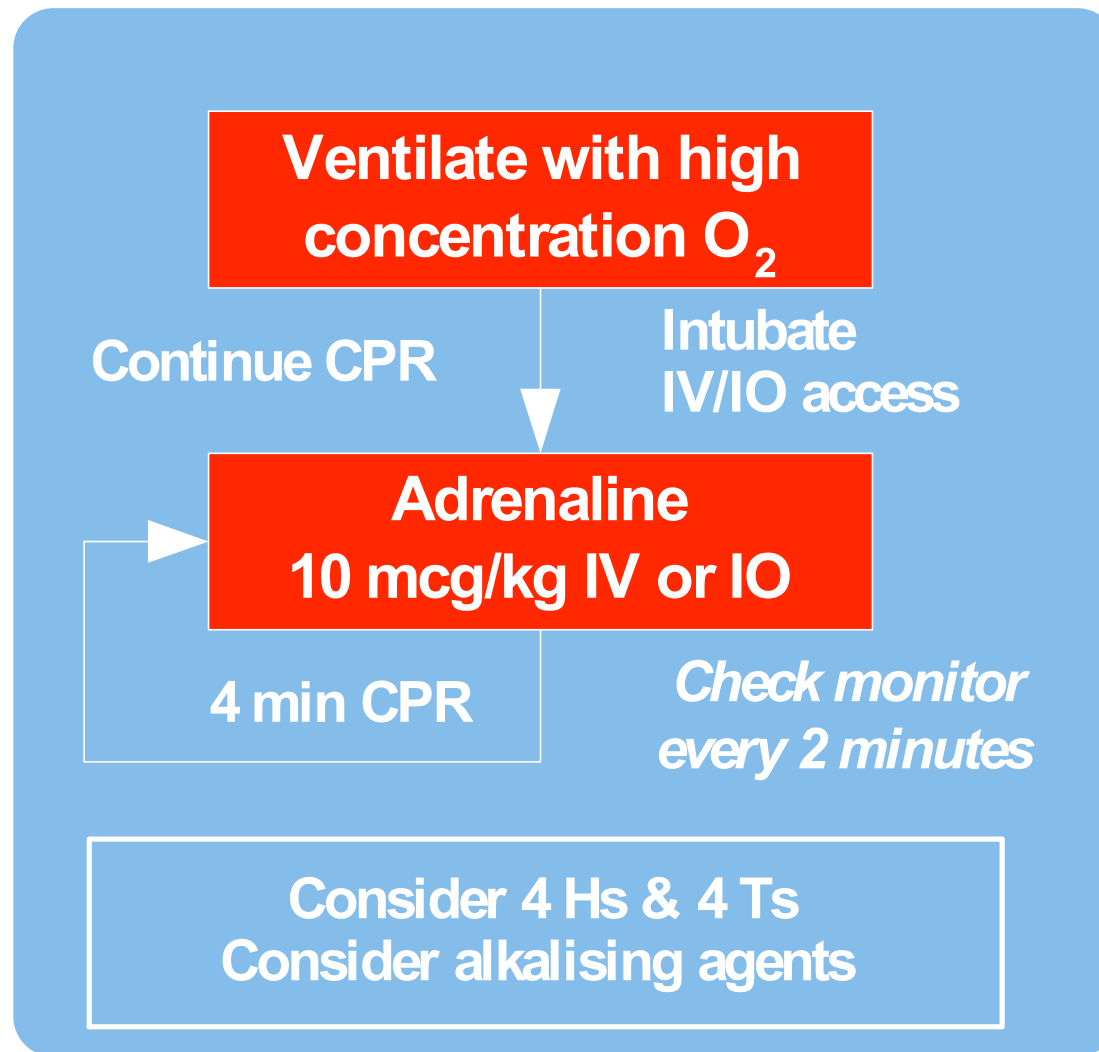
# Asystole



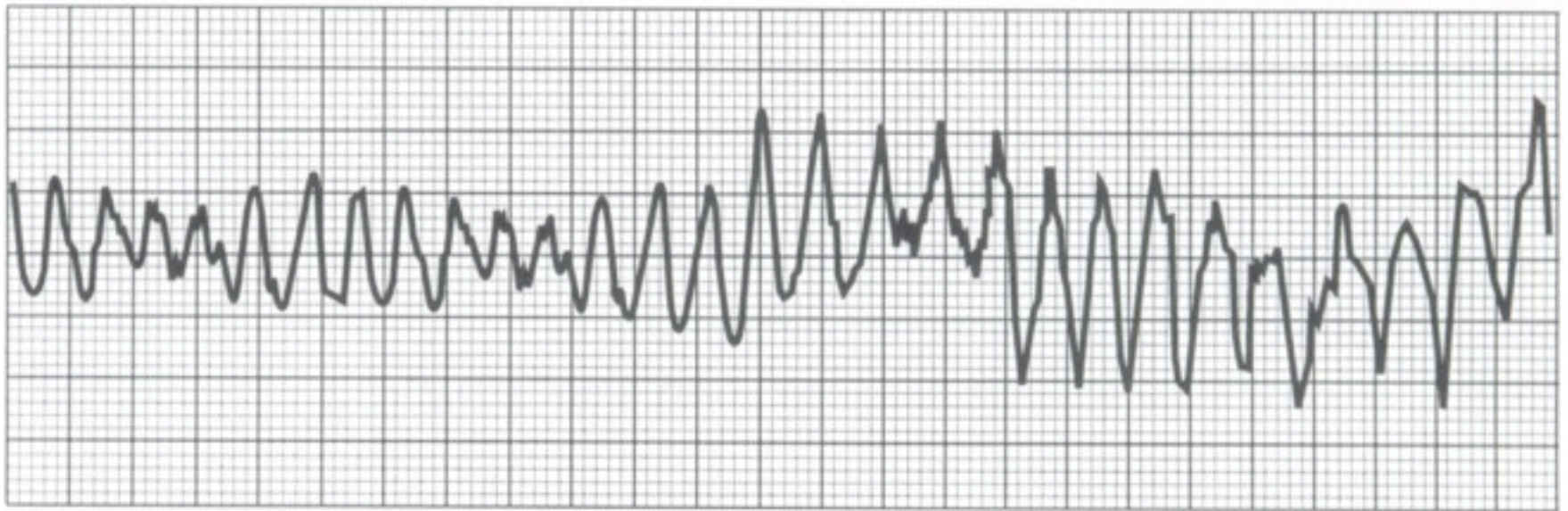
# Pulseless Electrical Activity



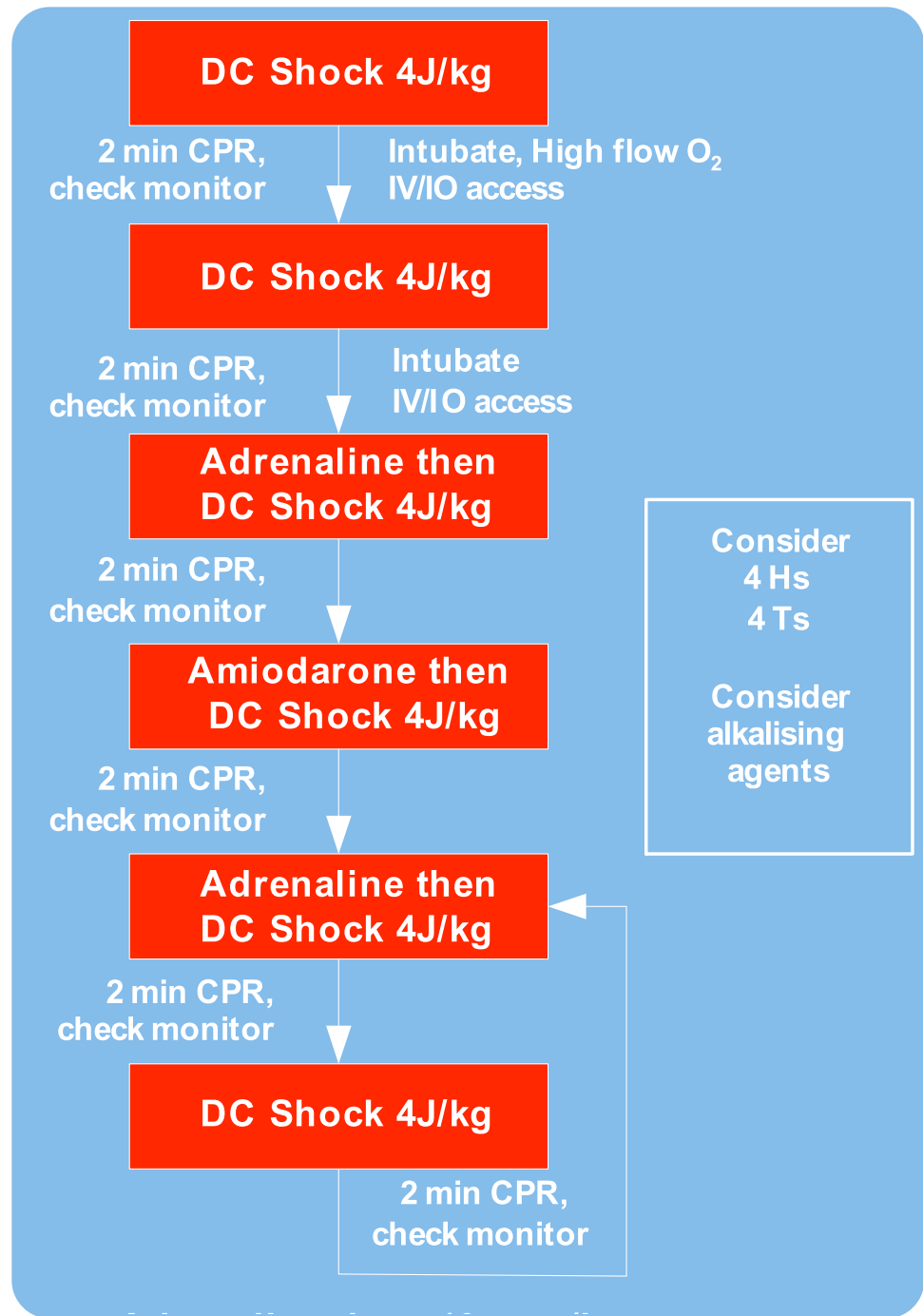
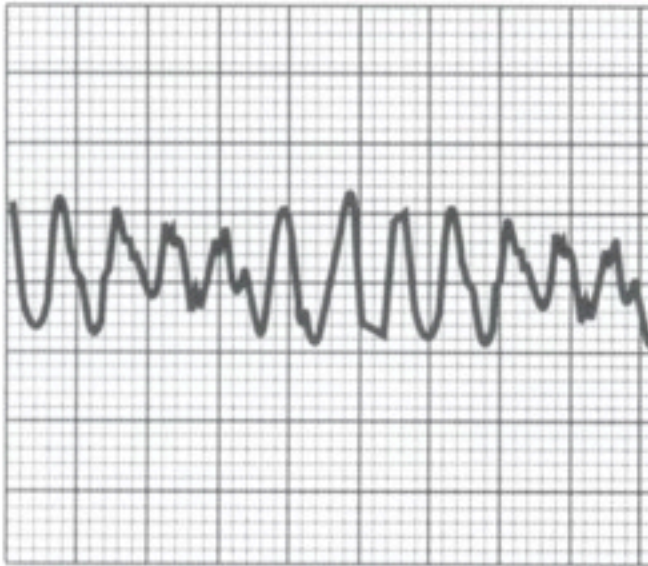
# Pulseless Electrical Activity



# Ventricular Fibrillation



# Ventricular fibrillation



# Ventricular fibrillation

**DC Shock 4J/kg**

2 min CPR,  
check monitor

Intubate, High flow O<sub>2</sub>  
IV/IO access

**DC Shock 4J/kg**

2 min CPR,  
check monitor

Intubate  
IV/IO access

**Adrenaline then  
DC Shock 4J/kg**

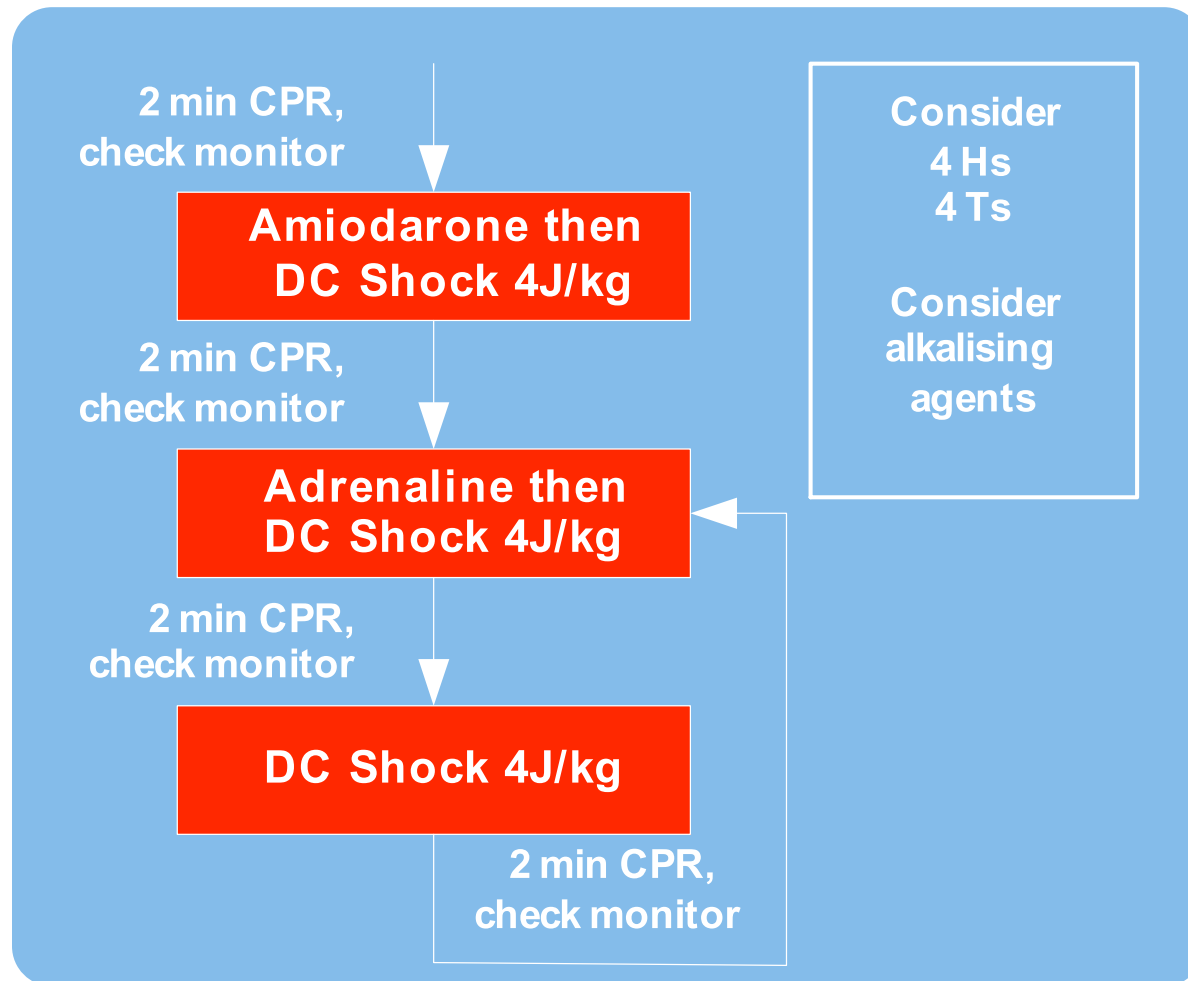
2 min CPR,  
check monitor

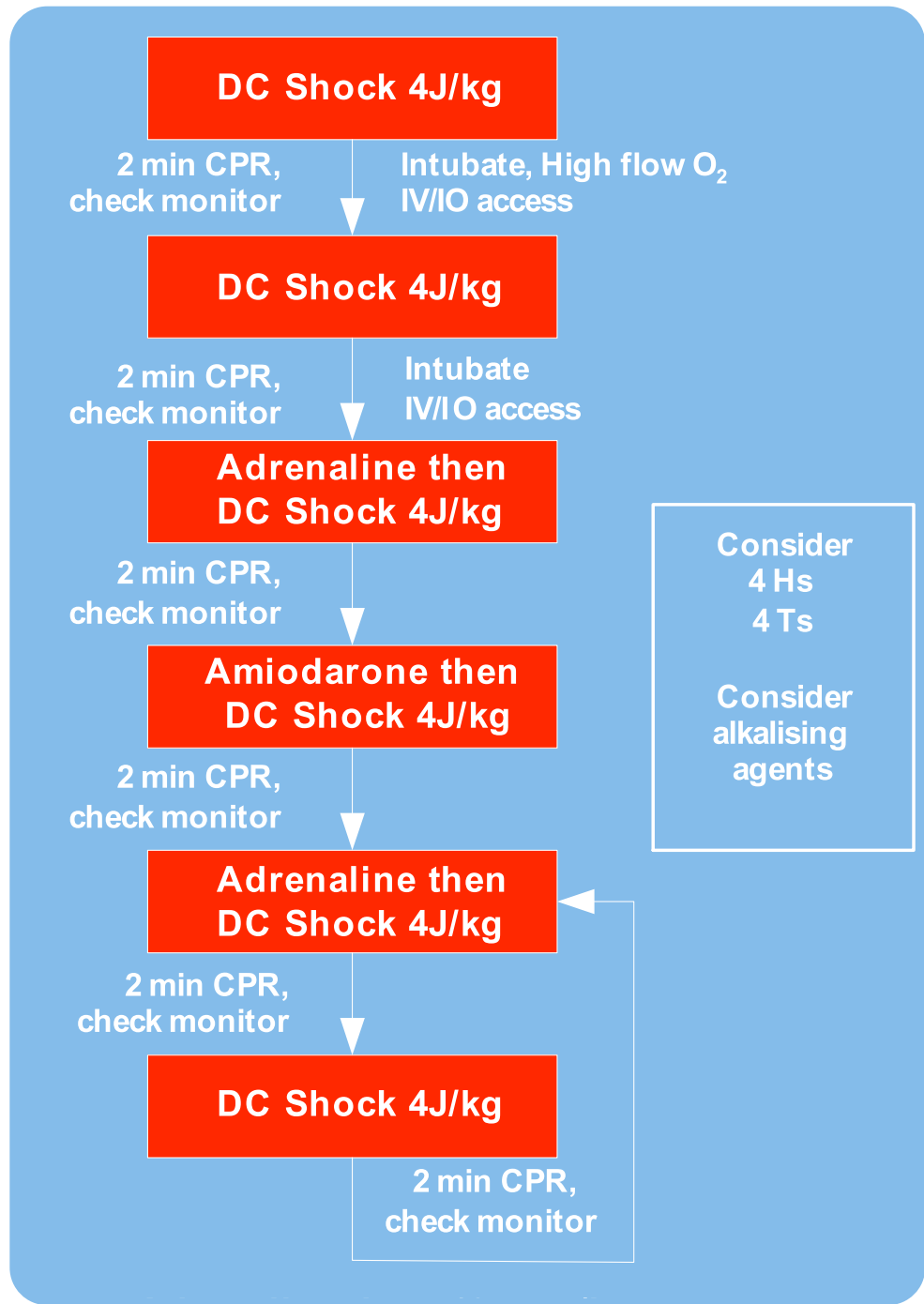
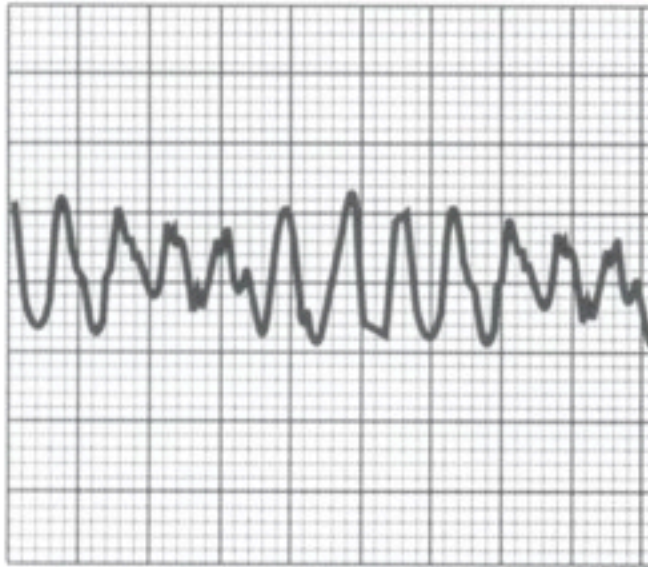
Consider  
4 Hs  
4 Ts

Consider  
alkalising  
agents



# Ventricular fibrillation





# Defibrillation

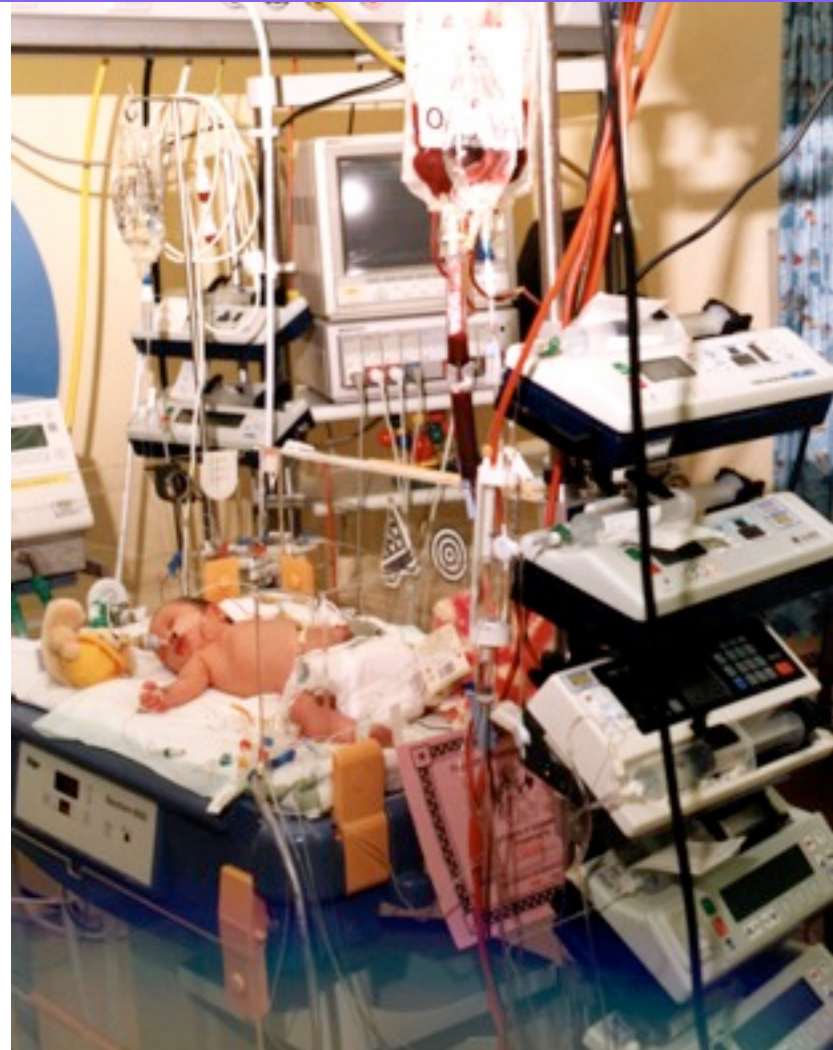
One shock:

- 4J/kg - manual defibrillator – all ages
- Paediatric attenuated AED - 1-8 years
- AED, adult shock - > 8 years

# Post Resuscitation Care

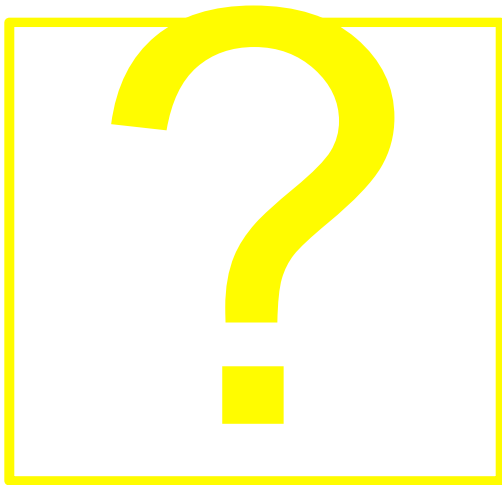
## Priorities

- Airway
- Breathing
- Circulation
- Disability





# Advanced Paediatric Life Support



The Management of  
Cardiac Arrest



- Stimulate and assess response
- Basic life support
- Open airway
- 5 initial rescue breaths
- Check pulse and check for signs of circulation
- Assess rhythm
- Protocol
- Post resuscitation care