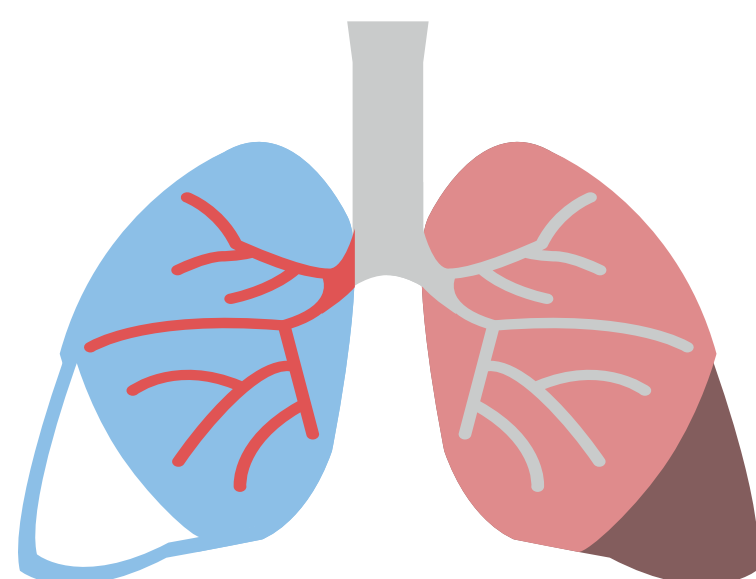


Pediatric Advanced Life Support

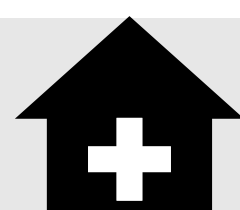
Advanced Airways in Pediatric Resuscitation

Most pediatric cardiac arrests are triggered by deterioration of **respiratory function**.



Out-of-hospital cardiac arrest

2019 Recommendation: Bag-mask ventilation is a reasonable alternative to advanced airway interventions (including endotracheal intubation or supraglottic airway).



In-hospital cardiac arrest

No Recommendation for or against the use of an advanced airway; advanced airway interventions may require more training and equipment.

New guidelines are largely based on **observational studies** involving only **out-of-hospital cardiac arrests**.

Targeted Temperature Management

Targeted temperature management (TTM) involves **keeping core temperatures within a certain range** to induce **therapeutic hypothermia** in pediatric patients who remain comatose after cardiac arrest.



2019 Recommendation: Continuously monitor core temperature during TTM.

For patients between 24 hours and 18 years of age who remain comatose after cardiac arrest, **there are 2 reasonable options:**

Option 1: Use TTM to maintain 32°C to 34°C, followed by TTM to maintain 36°C to 37.5°C.

Option 2: Use TTM to maintain 36°C to 37.5°C.

Option 1

32°C to 34°C
36°C to 37.5°C

Option 2

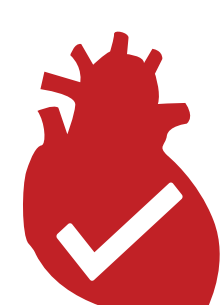
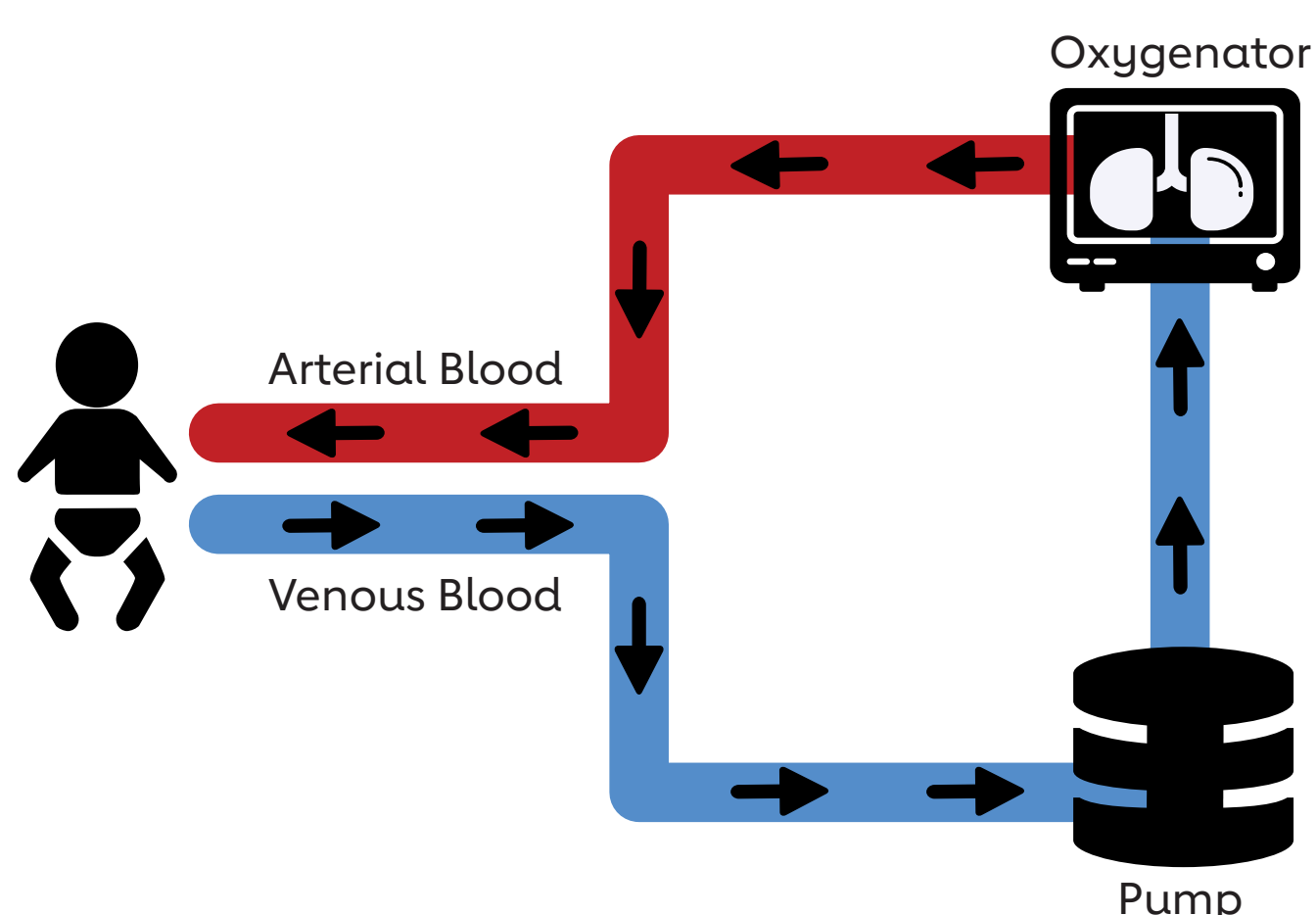
Day 1
Day 2
Day 3
Day 4
Day 5
36°C to 37.5°C

2019 Recommendation: TTM can be **considered** for both in-hospital and out-of-hospital cardiac arrest.

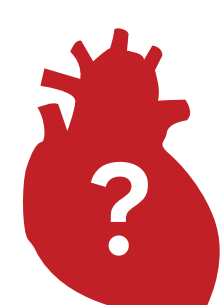
New TTM recommendations are based on the **THAPCA-IH trial** (Therapeutic Hypothermia After Pediatric Cardiac Arrest In-Hospital).

Extracorporeal CPR

Extracorporeal CPR refers to a cardiopulmonary bypass, which **maintains organ perfusion** while cardiac arrest causes are addressed.



2019 Recommendation: Consider extracorporeal CPR in **pediatric patients with cardiac diagnoses** who are experiencing in-hospital cardiac arrest in a center with **extracorporeal membrane oxygenation capability**.



Because of insufficient evidence, there are **no recommendations** for or against extracorporeal CPR in pediatric **out-of-hospital cardiac arrests** or **noncardiac diagnoses**.