

# Cardiac First Response /Basic Life Support (CFR/BLS)

# STUDENTS' HANDOUT (2025 Curriculum)



UNIVERSITY OF HEALTH SCIENCES LAHORE

# CARDIAC FIRST RESPONSE/ BASIC LIFE SUPPORT

#### **Definition:**

Cardiac first Response/ Basic Life Support is the foundational level of emergency medical care used to sustain in situations of cardiac arrest, respiratory failure, or airway obstruction before advanced medical help arrives.

#### **Course Outcomes**

- 1. Recognize signs of cardiac arrest and initiate immediate CPR
- 2. Perform Airway management in cardiac arrest
- 3. Perform high-quality CPR in various ages (adult, child and infant)
- 4. Use an Automated External Defibrillator (AED) effectively.
- 5. Integrate CFR skills into early cardiac arrest management.
- 6. Communicate effectively during resuscitation scenarios.
- 7. Manage Foreign Body Air Away Obstruction (FBAO) in various age groups
- 8. Provide post-resuscitation support and handover

# **Learning Objectives:**

Students will be able to:

- Identify life-threatening emergencies (cardiac arrest, choking, drowning etc)
- Demonstrate high-quality CPR on adults, children, and infants.
- Use an AED correctly and safely.
- Manage airway obstructions.
- Provide post-resuscitation support and handover.

# **Importance of CFR**

- 1. Saves Lives: Immediate CFR/BLS can double or triple the survival chance in cardiac arrest
- 2. First Response in Any Setting: Equips medical students by acting effectively.
- 3. Bridges Time: Maintains circulation and oxygenation until medical help or care is available.
- 4. Mandatory Skill: Required for clinical postings and recognized accrediting bodies globally

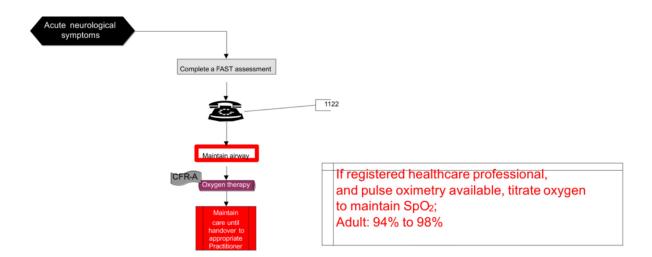
# **Algorithms**

Above CFR

# Cardiac chest pain 1122/911 If registered healthcare professional, and pulse oximetry available, titrate oxygen to maintain SpO<sub>2</sub>; Adult: 94% to 98% CFR Monitor vital signs

prescribed GTN Cardiac Chest Pain - Acute Coronary Syndrome

#### Stroke



F - facial weakness
Can the patient show teet 18, Has their mouth or eye drooped? Which side?
A - arm weakness
Can the patient raise both arms and maintain for 5 seconds?
S - speech problems
Can the patient speak clearly and understandwhat you say?
T - time to call 1122 now if FAST positive

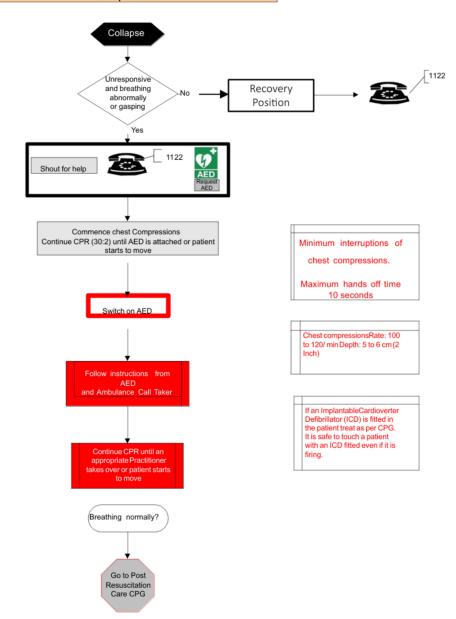
# **Adult Chain of Survival**

# Adult Out-of-Hospital Chain of Survival



## Cardiac First Response - Adult

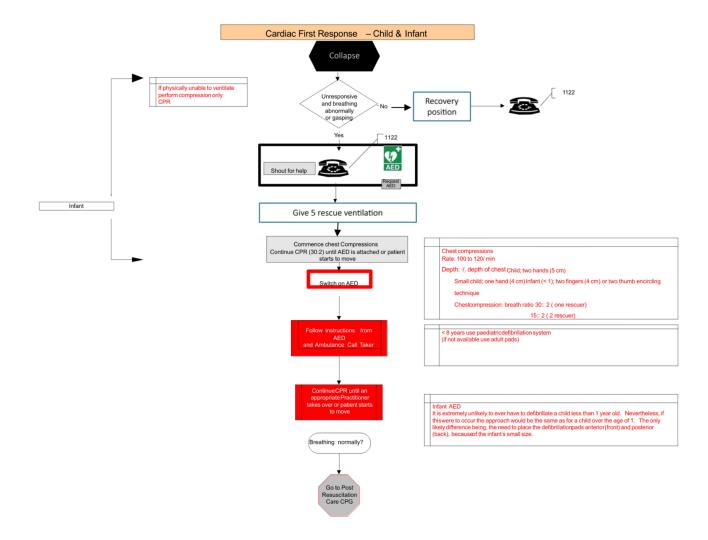
If physically unable to ventilate perform compression only CPR



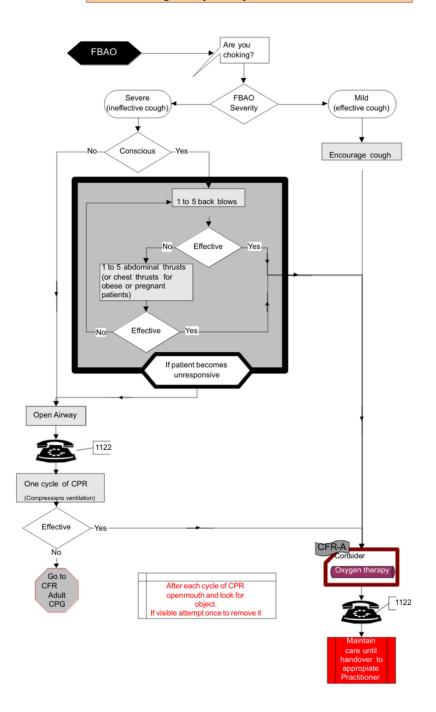
# **Pediatric Chain of Survival**

Pediatric Out-of-Hospital Chain of Survival



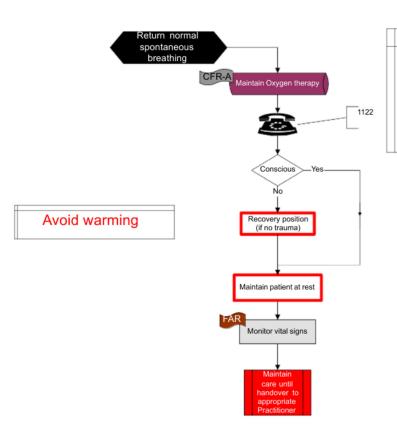


## Foreign Body Airway Obstruction - Adult



# Foreign Body Airway Obstruction -Infant (1 month to 1 Year) & Child 1 to 8 Years Are you choking? FBAO FBAO Severity Severe (ineffective cough) Mild (effective cough) Conscious Encourage cough 1 to 5 back slaps Effective 1 to 5 thrusts (child – abdominal thrusts) (infant – chest thrusts) Effective After each cycle of CPR openmouth and look for object. If visible attempt once to remove it unresponsive Open Airway 1122 one cycle of CPR Effective Go to CFR Paediatric CPG

## Post-Resuscitation Care

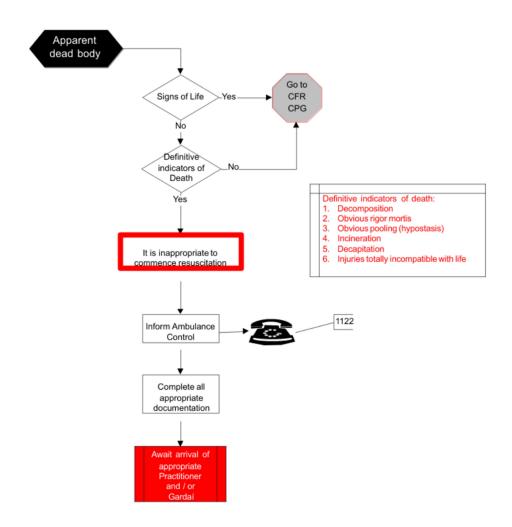


If registered healthcare professional, and pulse oximetry available, titrate oxygen to maintain SpO<sub>2</sub>;

Adult: 94% to 98%

Paediatric: 94% to 98%

# Recognition of Death - Resuscitation not Indicated



# **Recommended Guidelines and References**

- Pre-Hospital Emergency Care Council- Clinical Practice Guidelines-2021 Edition Updated 2023
- Pre-Hospital Emergency Care Council- Cardiac First Respond-Student handbook-2011 Edition.
- American Heart Association (AHA) BLS Guidelines 2020
- European Resuscitation Council (ERC) Guidelines 2021
- WHO Emergency Care Toolkit



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