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## RETURN OF SPONTANEOUS CIRCULATION (ROSC)

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(Signature On-file)  
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### RETURN OF SPONTANEOUS CIRCULATION (ROSC) – ADULT

#### Advanced Life Support

#### Paramedic

**AIRWAY:** Intubate or insert SGA if not already done.

#### **PULSE OXIMETRY and ETCO2 MONITORING:**

**OXYGEN:** Use the lowest LPM able to achieve pulse oximetry 94-98%

**VENTILATION:** 10-12 breaths/minute to maintain ETCO2 35-40

**ECG:** Obtain and transmit if able

**TRANSPORT:** Consider a brief pause in transport post-ROSC, to better ensure patient stability and prepare for possible interventions enroute. <sup>1</sup>

#### **IF DEFIBRILLATED/CARDIOVERTED AND NOT ALREADY GIVEN:**

**AMIODARONE:** 150 mg in 100 mL NS infused over 10 minutes

#### **FOR ECTOPY REFRACTORY TO AMIODARONE:**

**LIDOCAINE:** 1mg/kg IV/IO push (max = 100mg). Repeat at 0.5 mg/kg every 5-10 minutes as needed up to a maximum of 3 mg/kg total.

#### **FOR HYPOTENSION (SBP < 90):**

**Treat for shock as indicated.** Consider **EPINEPHRINE** or **DOPAMINE** gtt for hypotension (**see Shock Protocol**)

#### **EPINEPHRINE PUSH-DOSE:**

Mix 1mL of Epi 1:10,000 (0.1mg/mL) with 9 mL of NaCl 0.9% to make a concentration of 1:100,000 (0.01mg/mL).

Label syringe "epi 10 mcg/mL".

**0.5-1 mL (5-10 mcg) IVP** every 1-5 minutes

Titrate to >90 SBP

<sup>1</sup> Best available data shows that patients with ROSC benefit from optimized ventilation and hemodynamics. Use a 5-minute post-ROSC window to obtain vitals, secure additional IV access, support BP, obtain ECG and ensure advanced airway with EtCO2 and SpO2 monitoring

**GLUCOSE LEVEL ASSESSMENT:** Via finger stick or venipuncture. Treat if indicated per GLYCEMIC EMERGENCY protocol.

**THERAPEUTIC HYPOTHERMIA (TARGETED TEMPERATURE MANAGEMENT):** Refer to THERAPEUTIC HYPOTHERMIA protocol

**RETURN OF SPONTANEOUS CIRCULATION (ROSC): PEDIATRIC**

## Advanced Life Support

Paramedic

**AIRWAY:** BVM OR SGA as indicated

**PULSE OXIMETRY and ETCO2 MONITORING:**

**OXYGEN:** Use the lowest LPM able to achieve pulse oximetry 94-98%

**VENTILATION:** 20-30 breaths/minute to maintain ETCO2 35-40

**ECG:** Obtain and transmit if able

**IF DEFIBRILLATED/CARDIOVERTED AND NOT ALREADY GIVEN:**

**AMIODARONE: 5 mg/kg** over 10 minutes

**FOR ECTOPY REFRACTORY TO AMIODARONE:**

**LIDOCAINE: 1 mg/kg** IV/IO push (max = 100mg per push). Repeat 0.5 mg/kg every 5-10 minutes as needed up to a maximum of 3 mg/kg total.

**FOR HYPOTENSION (SBP < Age appropriate):**

**Treat for shock as indicated.** Consider **EPINEPHRINE** or **DOPAMINE** gtt for hypotension (**see Shock Protocol**)

**EPINEPHRINE (PUSH-DOSE):**

Mix patient's 0.01 mg/kg code dose of 1:10,000 (0.1mg/mL) epi with NaCl 0.9% to total 10 mL

The number of mL of epi multiplied by 10 is the concentration in mcg/mL

Label the syringe with "epi" and calculated concentration in mcg/mL

Give **1 mL every 1-2 minutes** (which is 1mcg/kg) and titrate to age-appropriate SBP

**GLUCOSE LEVEL ASSESSMENT** – Via finger stick or venipuncture. Treat as indicated per GLYCEMIC EMERGENCY protocol