



Indications

- Any patient in whom cardiac or respiratory arrest appears imminent.
- Any patient who appears in extremis, including new onset altered mental status, airway compromise, severe respiratory distress, or signs of shock/poor perfusion.
- Any patient who regains pulses following resuscitation.

Exclusion Criteria

- Any patient with evidence of severe, life-threatening trauma.

Purpose

EMS traditionally has attempted rapid extrication and transport of patients in extremis or in whom ROSC is achieved. Many times this leads to patients quickly deteriorating to the point of cardiac arrest, often while packaging and loading these patients. It is important to rapidly recognize the deteriorating patient and take immediate action where you encounter the patient to stabilize the condition BEFORE loading and transporting.

C-04 RAPIDLY DETER./ POST-ROSC		<div style="border: 1px solid black; padding: 2px;"> </div> <div style="border: 1px solid black; padding: 2px;"> </div> <div style="border: 1px solid black; padding: 2px;"> </div> <div style="border: 1px solid black; padding: 2px;"> </div>
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Checklist for Post-Resuscitation and Rapidly-Deteriorating Patients				
Reference Guidelines	Interventions			
<div style="border: 1px solid black; background-color: yellow; padding: 5px; display: inline-block;"> IV Protocol </div> <div style="border: 1px solid black; background-color: white; padding: 2px; display: inline-block; margin-left: 10px;">1-03</div>	<ul style="list-style-type: none"> <input type="checkbox"/> Call for additional resources. <input type="checkbox"/> Place appropriate monitoring equipment: <i>Continuous Pulse-Oximetry, End-Tidal CO₂, <u>and</u> Continuous ECG</i> <hr/> <ul style="list-style-type: none"> <input type="checkbox"/> Obtain (at least 2) adequate IV access sites <hr/> <p><i>Unless profound pulmonary edema,</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Begin fluid resuscitation (1 Liter NS) 			
	<ul style="list-style-type: none"> <input type="checkbox"/> 12-Lead ECG 			
	Crashing Patient	Post Resuscitation		
<div style="border: 1px solid black; background-color: orange; padding: 5px; display: inline-block; margin-bottom: 5px;"> Airway Maintenance </div> <div style="border: 1px solid black; background-color: white; padding: 2px; display: inline-block; margin-left: 10px;">A-01A</div> <div style="border: 1px solid black; background-color: orange; padding: 5px; display: inline-block; margin-top: 5px;"> Respiratory Distress </div> <div style="border: 1px solid black; background-color: white; padding: 2px; display: inline-block; margin-left: 10px;">A-01B</div>	<p>Titrate respiratory support to ensure adequate oxygenation & ventilation: Goals SpO₂ >94% & EtCO₂ 35-45 mmHg</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> <ul style="list-style-type: none"> <input type="checkbox"/> Place NRB @ 100% O₂ <input type="checkbox"/> Escalate respiratory support as needed: NIPPV, BVM, DAI/RSI </td> <td style="width: 40%; padding: 5px; background-color: #FFDADA;"> <p><i>If ROSC with BIAD:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Place ETT if any concern of BIAD function </td> </tr> </table>		<ul style="list-style-type: none"> <input type="checkbox"/> Place NRB @ 100% O₂ <input type="checkbox"/> Escalate respiratory support as needed: NIPPV, BVM, DAI/RSI 	<p><i>If ROSC with BIAD:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Place ETT if any concern of BIAD function
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<div style="border: 1px solid black; background-color: orange; padding: 5px; display: inline-block;"> Medical Shock </div> <div style="border: 1px solid black; background-color: white; padding: 2px; display: inline-block; margin-left: 10px;">M-06</div>	<p>Ensure adequate perfusion: Goals SBP > 90 and/or MAP >65</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> <p>Treat as indicated per appropriate clinical guideline:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Medical Shock [M-06] <input type="checkbox"/> Hypertensive Crisis [M-05] <input type="checkbox"/> Bradycardia [C-05] <input type="checkbox"/> Narrow-Complex Tach. [C-07] <input type="checkbox"/> Wide-Complex Tach. [C-08] </td> <td style="width: 40%; padding: 5px; background-color: #FFDADA;"> <p><i>For ALL post-arrest patients:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Prepare vasopressor drip <p><i>If any hypotension/bradycardia:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Begin vasopressor drip <p><i>If Amiodarone or Lidocaine administered:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Begin antiarrhythmic drip </td> </tr> </table>		<p>Treat as indicated per appropriate clinical guideline:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Medical Shock [M-06] <input type="checkbox"/> Hypertensive Crisis [M-05] <input type="checkbox"/> Bradycardia [C-05] <input type="checkbox"/> Narrow-Complex Tach. [C-07] <input type="checkbox"/> Wide-Complex Tach. [C-08] 	<p><i>For ALL post-arrest patients:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Prepare vasopressor drip <p><i>If any hypotension/bradycardia:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Begin vasopressor drip <p><i>If Amiodarone or Lidocaine administered:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Begin antiarrhythmic drip
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	<p><i>If any purposeful movement:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Sedate patient 			
<p>Once interventions have been completed, begin to “package” the patient for extrication/transport.</p>				

NOTES:

- Survival/neurologic outcome worsen with fever, hypoxia, hypo/hypercapnia, and hypotension. Post-ROSC care should focus on prevention of these elements.
 - Prevent hypotension: Maintain normal blood pressure (SBP>90 and/or MAP>65) with fluids and vasopressors as per guidelines:
 - Medical shock [**M-06**, includes Cardiogenic Shock], and/or
 - Hemorrhagic shock [**T-03**]
 - Prevent hypoxemia:
 - Respiratory Distress [**A-01B**] or other appropriate guidelines.
 - Oxygen should be titrated to maintain SaO₂ of >94%.
 - Prevent hypo/hypercapnia:
 - Always use ETCO₂ monitoring [**A-P3**]
 - Titrate ventilations (respiratory rate) to goal:
 - **Goal ETCO₂ 35-45 mmHg** (although slight elevations may be considered, especially in patients with chronic lung disease)
 - **Patients in extremis or following resuscitation should generally be assumed to be in a state of acidosis, and respiratory rates should generally be in the 12-20 bpm range for adults.**
 - Higher rates should always be accompanied by a relative decrease in tidal volume to prevent hyperventilation and elevated intrathoracic pressures (which may result in decreased preload and hypotension). Typical adult-sized reservoir bags (Ambu Bags) should utilize a “two-finger pinch” technique to limit the volume of air delivered.
 - Prevent/treat fever:
 - Consider contacting online medical control to initiate cooling (hypothermia) with ice packs and cool/room-temperature IV fluids.
 - Maintain temperature <38 °C (<100.4 °F) using appropriate passive cooling techniques.
- Always monitor for and prepare to treat arrhythmias as per specific guidelines.
- Obtain 12-lead EKG as soon as possible to evaluate for STEMI.