



4104	Skills List
Treatment Protocol	



Last Reviewed: November 30, 2022

Last Revised: December 2, 2022

SKILL	INDICATION(S)	PSP	EMT	AEMT	EMT-P	CONTRAINdications	EXPECTATIONS
		BLS Patient Management	ALS Patient Management	GENERAL MEDICAL SKILLS			
BLOOD GLUCOSE (BG) MONITORING	<ul style="list-style-type: none">• Symptomatic hypoglycemia• Neurological dysfunction• History of diabetes• Vague or general symptoms or complaints• Need to reassess unusual and/or unexpected measurement(s)• Need to reassess following treatment of hypoglycemia• EMT, AEMT or EMT-P judgment• At the request of a base hospital (BHO)					• None	Repeat as clinically indicated. BG should always be evaluated and documented prior to allowing the patient to refuse treatment and/or transport

SKILL	INDICATION(S)	PSP	EMT	AEMT	EMT-P	CONTRAINdications	EXPECTATIONS
		BLS Patient Management	ALS Patient Management				
ECG APPLICATION AND MONITORING	<p><u>Patients that present with the following signs and/or symptoms:</u></p> <ul style="list-style-type: none"> • ACS (Chest pain, discomfort, pressure or tightness radiating to the jaw, shoulders, or arms) • Known history of ACS • Palpitations • Unexplained diaphoresis • Dyspnea • Syncope, near syncope, or dizziness • Altered mental status • Epigastric pain • General weakness • Congenital heart problems 		<i>MAY ASSIST WITH PLACEMENT OF LEADS BUT MAY NOT INTERPRET</i>	<i>MAY ASSIST WITH PLACEMENT OF LEADS BUT MAY NOT INTERPRET</i>		<p><u>Relative:</u></p> <ul style="list-style-type: none"> • Uncooperative patient • Life-threatening conditions • Applying ECG leads will impede immediate patient care needs 	

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		BLS Patient Management	ALS Patient Management				
ECG APPLICATION AND MONITORING - 12-LEAD	<p><u>Patients that present with the following signs and/or symptoms:</u></p> <ul style="list-style-type: none"> • ACS (Chest pain, discomfort, pressure or tightness radiating to the jaw, shoulders, or arms) • Known history of ACS • New onset cardiac dysrhythmias (including adult cardiac arrest, if return of spontaneous circulation occurs) • Palpitations • Unexplained diaphoresis • Dyspnea • Syncope, near syncope, or dizziness • Altered mental status • Epigastric pain • General weakness • Congenital heart problems • Any patient the EMT-P feels would benefit from a 12-lead ECG assessment 		<i>MAY ASSIST WITH PLACEMENT OF LEADS BUT MAY NOT INTERPRET</i>	<i>MAY ASSIST WITH PLACEMENT OF LEADS BUT MAY NOT INTERPRET</i>		<p><u>Relative:</u></p> <ul style="list-style-type: none"> • Uncooperative patient • Life-threatening conditions • Applying and performing 12-lead will impede immediate patient care needs 	<p><u>12-lead ECGs should be transmitted to a STEMI Receiving Center when:</u></p> <ul style="list-style-type: none"> • A STEMI is suspected • A STEMI is ECG-monitor identified or • The patient's cardiac rhythm is atypical or difficult to interpret <p>Serial 12- lead ECGs should be performed on patients when acute MI is suspected</p>

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		BLS Patient Management	ALS Patient Management				
INDWELLING DEVICE ACCESS (<u>SHUNTS / GRAFTS / PORT-A-CATHS, ET AL.</u>)	• When fluid resuscitation or medications need to be provided and peripheral IV access and IO access is unobtainable	NOT PERMITTED IN RIVERSIDE COUNTY					
INTRAMUSCULAR INJECTION	<ul style="list-style-type: none"> When unable to establish peripheral IV access for medication administration When the desired route for administration of a medication is IM 		MAY ONLY ASSIST WITH THE USE OF PATIENT'S Rx'd EPI-PEN	MAY ONLY ASSIST WITH THE USE OF PATIENT'S Rx'd EPI-PEN		<u>When any of the following are found at the intended injection site:</u> <ul style="list-style-type: none"> Masses Tenderness Bruising Infection Abrasions Swelling 	<ul style="list-style-type: none"> The preferred site in patients greater than or equal to 3 years of age is the deltoid (maximum of 1 ml volume) The preferred site in patients less than or equal to 3 years of age is the vastus lateralis (maximum of 3 ml volume)
INTRANASAL NALOXONE (IN) ADMINISTRATION <u>BY PUBLIC SAFETY PERSONNEL</u>	<ul style="list-style-type: none"> Respiratory depression / arrest with suspected narcotic overdose 	REQUIRES REMSA APPROVAL				<ul style="list-style-type: none"> Significant nasal trauma Significant amount of blood or dried mucous discharge present in the nare(s) 	<ul style="list-style-type: none"> PSPs working for agencies that are REMSA authorized to administer intranasal naloxone may provide 4 mg IN following procedures outlined in policy #3309 and in REMSA approved training
INTRANASAL MEDICATION ADMINISTRATION	<ul style="list-style-type: none"> When unable to establish peripheral IV access for medication administration When the desired route for administration of a medication is IN 					<ul style="list-style-type: none"> Significant nasal trauma Significant amount of blood or dried mucous discharge present in the nare(s) 	Volumes over 1 ml per nostril are likely too large and may result in runoff out of the nostril. Attempt to administer less, if possible

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INTRAOSSEOUS (IO) ACCESS	<ul style="list-style-type: none"> When unable to establish peripheral IV access for medication administration 			MAY ONLY INITIATE IO ACCESS IN PEDIATRIC PATIENTS		<ul style="list-style-type: none"> When able to establish peripheral vascular access When a fracture exists at the insertion site When there is difficulty clearly identifying the insertion site (absence of anatomical landmarks / excess tissue / other problem) When an infection is present at the insertion site When there has already been a previous orthopedic procedure at the insertion site (IO attempt within last 48 hours / joint replacement / prosthetic) 	<p>IO access is considered the primary vascular access route in patients eight (8) years of age and younger</p> <p><u>AEMTs may use:</u></p> <ul style="list-style-type: none"> the EZ-IO Power Driver at the distal and proximal tibia in pediatrics only the Waismed Bone Injection Gun (B.I.G.) at the proximal tibia in pediatrics only <p><u>EMT-Ps may use:</u></p> <ul style="list-style-type: none"> the EZ-IO Power Driver at the distal and proximal tibia in adults & pediatrics and the proximal humerus (humeral head) in adults the Waismed Bone Injection Gun (B.I.G.) at the proximal tibia in adults & pediatrics <p>Any clinically indicated insertion site may be used by EMT-Ps in any patient following discussion with the base hospital physician (BHPO) concerning the risks and benefits, the operator's training and experience, and limitations of the available device</p>

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INTRAOSSSEOUS (IO) ACCESS: <u>LIDOCAINE ADMINISTRATION FOR PAIN DURING IO INFUSION IN THE CONSCIOUS PATIENT</u>	<ul style="list-style-type: none"> <u>Standing order:</u> Pain during IO infusion in the conscious patient 				Green	<ul style="list-style-type: none"> None 	<p><u>Adults:</u> 50 mg (2.5 mL) slow IO push over 1 minute.</p> <p>ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).</p> <p><u>Pediatrics:</u> 0.5 mg / kg slow IO push over 1 minute.</p> <p>ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO). For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.</p>
INTRAVENOUS ACCESS - EXTERNAL JUGULAR	<ul style="list-style-type: none"> When unable to establish peripheral IV access, or IO access, when medication administration or fluid resuscitation is required 				Green	<u>Patients who:</u> <ul style="list-style-type: none"> Are eight (8) years of age or younger Cannot tolerate lying supine Are actively vomiting Have a neck mass or evidence of infection at or near the intended insertion site Have a VP shunt on the side of the intended insertion Have obscured landmarks 	<p>Avoid using large bore catheters</p>
INTRAVENOUS ACCESS - PERIPHERAL	<ul style="list-style-type: none"> Administration of medication(s), the need for fluid replenishment and/or anticipation of administration of either 			Green	Green	<ul style="list-style-type: none"> None; however, care should be taken in patients with coagulopathy and in the presence of local infection, burns, or compromised skin at the intended site of insertion 	<p>When the administration of medication(s) or the need for fluid replenishment is not indicated but is anticipated, placement of a saline lock ONLY is appropriate.</p> <p>Administration of IV fluids should always be clinically indicated and given as a bolus, not at a TKO rate.</p>

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PAIN MANAGEMENT	<ul style="list-style-type: none"> When a patient complains of pain greater than 5 / 10 on the pain scale and would benefit from the administration of analgesics <p><u>NOTE: the administration of Fentanyl to its max dose followed by the administration of Ketamine – or vice versa – is a standing order.</u></p>					<p><u>Fentanyl:</u></p> <ul style="list-style-type: none"> Sensitivity to opioids Hypotension / systolic BP less than 90 mmHg <p><u>Ketamine:</u></p> <ul style="list-style-type: none"> Patients less than 15 years of age Sensitivity to Ketamine Pain / discomfort of suspected cardiac origin 	<ul style="list-style-type: none"> REPETITION OF ANY ANALGESIC AFTER ALL MAX DOSES HAVE BEEN ADMINISTERED REQUIRES A BASE HOSPITAL ORDER (BHO) Vitals signs (ECG, SpO₂ and waveform / digital capnography) must be monitored throughout BLS and ALS interventions for pain management The max single dose for Ketamine is 30 mg regardless of the route. ADMINISTRATION OF KETAMINE TO PEDIATRIC PATIENTS IS NOT PERMITTED.
SUPPLEMENTAL OXYGEN THERAPY	<ul style="list-style-type: none"> Pulse oximetry reading of less than 94% in the presence of shortness of breath 					<ul style="list-style-type: none"> Pulse oximetry reading of greater than 94% No complaint of shortness of breath 	<p>Titrate to maintain, or increase, SpO₂ to a minimum of 94%. A range of 88-92% is acceptable for patients with a history of COPD</p>
VENOUS BLOOD SAMPLING	<ul style="list-style-type: none"> Obtaining IV access for the purpose of taking a venous blood sample at the request of law enforcement 	NOT PERMITTED IN RIVERSIDE COUNTY					

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		BLS Patient Management		ALS Patient Management			
AIRWAY MANAGEMENT SKILLS							
AIRWAY ADJUNCT – NASOPHARYNGEAL (NPA)	<ul style="list-style-type: none"> Inadequate / ineffective positive pressure ventilations Conscious patients who cannot tolerate an OPA 					<ul style="list-style-type: none"> Signs of basilar skull fractures, facial trauma, and any disruption of the midface, nasopharynx or roof of the mouth Patients with suspected epiglottitis Coagulopathic patients (including those taking anti-coagulants) due to the risk of hemorrhage Patients with large nasal polyps Patients who have had recent nasal surgery 	Nasopharyngeal airways (NPAs) are the preferred BLS adjunct
AIRWAY ADJUNCT – OROPHARYNGEAL (OPA)	<ul style="list-style-type: none"> Inadequate / ineffective positive pressure ventilations 					<ul style="list-style-type: none"> Patients with an intact gag reflex Patients with a foreign body obstructing the airway 	Nasopharyngeal airways (NPAs) are the preferred BLS adjunct
AIRWAY SUCTIONING	<ul style="list-style-type: none"> Mucus, blood or foreign body obstruction in the airway Low SpO₂ with audible gurgling sounds Cyanosis associated with airway compromise Difficulty in ventilating patient due to high airway pressures Request by the conscious patient: The patient may be familiar with their own airway status and need for suctioning Significant increase in stridor or changes in breathing sounds associated with audible gurgling sounds 					<ul style="list-style-type: none"> None 	3 mL of normal saline may be introduced during suctioning to loosen thickened secretions. MAY REPEAT PRN.

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BAG VALVE MASK (BVM) / POSITIVE PRESSURE VENTILATIONS	<ul style="list-style-type: none"> Inadequate / ineffective respirations 	REQUIRES REMSA APPROVAL				<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> All ALS provider agencies MUST use waveform / digital capnography when providing rescue ventilations via BVM Nasopharyngeal airways (NPAs) are the preferred BLS airway when providing rescue ventilations via BVM
CAPNOGRAPHY - COLORMETRICS	<ul style="list-style-type: none"> For use immediately after orotracheal intubation to confirm correct placement of the ETT, prior to use of waveform / digital capnography 					<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> A colormetric device may be used in conjunction with waveform / digital capnography but it does not take the place of waveform / digital capnography use In the event of waveform / digital capnography failure, the use of a colormetric device is mandatory
CAPNOGRAPHY - WAVEFORM / DIGITAL	<ul style="list-style-type: none"> To identify ETT dislodgement To assist in monitoring the effectiveness of ventilations and perfusion in any patient To monitor the quality of chest compressions in cardiac arrest patients To confirm ROSC To monitor the status of asthmatic, CHF, COPD and/or PE patients 					<ul style="list-style-type: none"> None 	<p>Waveform / digital capnography utilization, interpretation and documentation is mandatory:</p> <ul style="list-style-type: none"> Immediately following orotracheal intubation After every patient movement Prior to transfer of care to hospital staff With any change in patient condition When providing positive pressure ventilations via BVM when EMT-Ps are present

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CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)	<p>An awake, alert patient who can maintain their own airway and complains of severe respiratory distress suggestive of:</p> <ul style="list-style-type: none"> • CHF exacerbation • COPD exacerbation • Asthma Exacerbation • Non-fatal drowning <p>CPAP APPLICATION AND USE IN PEDIATRICS IS NOT PERMITTED</p>					<ul style="list-style-type: none"> • Apnea • Unconsciousness • Pediatric patients (appearing to be 14 years of age or less) • Suspected pneumothorax • Vomiting • Pump failure due to severe bradycardia or non-compensatory tachycardia (treat rate first) • Systolic blood pressure of 90 mmHg or less 	<p>Begin at 5 cmH₂O and increase pressure in 2.5 – 5 cmH₂O increments, to max 15 cmH₂O. TITRATE TO RELIEF OF DYSPNEA.</p> <p>INCREASING PRESSURE TO 20 cmH₂O REQUIRES A BASE HOSPITAL ORDER (BHO).</p>
CRICO - THYROIDOTOMY, NEEDLE	<ul style="list-style-type: none"> • When airway management is required for a patient in severe respiratory distress in whom less invasive techniques (e.g., BLS airway management and OTI) have failed or are not likely to be successful 	NOT PERMITTED IN RIVERSIDE COUNTY					
CRICO - THYROIDOTOMY, SURGICAL	<ul style="list-style-type: none"> • When airway management is required for a patient in severe respiratory distress in whom less invasive techniques (e.g., BLS airway management and OTI) have failed or are not likely to be successful 	NOT PERMITTED IN RIVERSIDE COUNTY					
DIRECT LARYNGOSCOPY WITH MAGILL FORCEPS	<ul style="list-style-type: none"> • When the need to visualize the airway exists due to inadequate ventilations and/or signs of hypoxia in the presence of a suspected, or confirmed, foreign body airway obstruction (FBAO) 					<ul style="list-style-type: none"> • None 	Suction and oxygenate as clinically indicated

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INDIRECT LARYNGOSCOPY USING VIDEO DEVICES	<ul style="list-style-type: none"> To assist with visualization of the airway due to inadequate ventilations and/or signs of hypoxia in the presence of a suspected, or confirmed, foreign body airway obstruction (FBAO) To assist with visualization of the trachea during orotracheal intubation 				Green	<ul style="list-style-type: none"> Presence of facial trauma 	
NASOGASTRIC TUBE PLACEMENT	<ul style="list-style-type: none"> To facilitate passive gastric decompression 	NOT PERMITTED IN RIVERSIDE COUNTY					
OROGASTRIC TUBE PLACEMENT	<ul style="list-style-type: none"> To facilitate passive gastric decompression after orotracheal intubation (OTI) or the insertion of an i-gel supraglottic airway device. 				Green	<ul style="list-style-type: none"> Pediatric patients (appearing, or known to be, 14 years of age or less) The patient's airway is NOT being managed with an ETT or i-gel supraglottic airway device. Adult patients weighing less than 36 kg / 79.2 lbs. AND whose length (measured from crown to heel) falls within the range of any commercially available, standardized length-based pediatric resuscitation tape. 	<ul style="list-style-type: none"> After successful OTI, insertion of an appropriately sized OG tube is highly recommended. After successful placement of the i-gel, insertion of an appropriately sized OG tube is mandatory. <p>Determine appropriately sized OG tube based on:</p> <ol style="list-style-type: none"> 1. The available tube size, post-OTI OR 2. The size of the i-gel supraglottic airway device being inserted <p>Use the appropriate measuring technique to ensure proper placement.</p> <p>Confirm proper placement then secure to the airway device or the patient's face.</p>

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		BLS Patient Management	ALS Patient Management				
INTUBATION - NASAL	• When BLS airway management is inadequate and/or ineffective and orotracheal intubation is contraindicated or not possible			NOT PERMITTED IN RIVERSIDE COUNTY			
INTUBATION – OROTRACHEAL (OTI), ADULT	• When BLS airway management is inadequate and/or ineffective					<ul style="list-style-type: none"> When BLS airway management is adequate and/or effective Patients weighing less than 36 kg / 79.2 lbs. AND whose length (measured from crown to heel) falls within the range of any commercially available, standardized length-based pediatric resuscitation tape. 	<p><u>Passing the laryngoscope past the teeth with the intent of placing an ETT is considered an intubation attempt. After two (2) failed attempts, return to BLS airway management</u></p> <p><u>Utilize a colormetric device immediately after OTI to confirm correct placement of the ETT THEN utilize waveform / digital capnography to:</u></p> <ul style="list-style-type: none"> Identify ETT dislodgement Assist in monitoring the effectiveness of ventilations and perfusion in the intubated patient Monitor the quality of chest compressions in cardiac arrest patients Confirm ROSC <p><u>Remove the ETT immediately if esophageal placement is suspected.</u></p> <p><u>In the event of waveform / digital capnography failure, the use of a colormetric device is mandatory.</u></p> <p><u>The appropriate depth of an ETT is $\frac{1}{2}$ - 1 inch beyond the vocal cords, usually between the 22 - 23 cm marking at the teeth.</u></p> <p><u>The target range for ETCO₂ levels is between 30 – 45 mmHg if ROSC is present. The target range for ETCO₂ levels is between 15 mmHg – 45 mmHg during CPR.</u></p> <p>After successful OTI, insertion of an appropriately sized OG tube is highly recommended.</p>

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INTUBATION – OROTRACHEAL (OTI), ADULT WITH INTRODUCER / BOUGIE	<ul style="list-style-type: none"> When ETT placement / orotracheal intubation assistance is needed due to a difficult airway 				Green	<ul style="list-style-type: none"> None 	<p><u>The introducer is correctly placed when:</u></p> <ul style="list-style-type: none"> It can be seen going through the vocal cords Ratcheting of the tip can be felt on the tracheal rings as it is introduced and/or When resistance is met after it has been advanced (the tip is at the carina). <p><u>If no resistance is encountered and the entire length of the introducer is inserted, the device is in the esophagus</u></p>
INTUBATION - OROTRACHEAL, PEDIATRIC / NEONATE	<ul style="list-style-type: none"> When BLS airway management is inadequate and/or ineffective in the pediatric and/or neonate patient 	NOT PERMITTED IN RIVERSIDE COUNTY					
INTUBATION - OROTRACHEAL, RAPID SEQUENCE (RSI)	<ul style="list-style-type: none"> When BLS airway management is inadequate and/or ineffective and rapid airway management is necessary through the use of induction, and paralytic, medications 	NOT PERMITTED IN RIVERSIDE COUNTY					
INTUBATION - STOMAL	<ul style="list-style-type: none"> When BLS airway management is inadequate and/or ineffective and an ETT is used to control a patient's airway through a pre-existing tracheal stoma 	NOT PERMITTED IN RIVERSIDE COUNTY					

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i-gel / SUPRAGLOTTIC AIRWAY DEVICE	<p>When airway management is required for a patient that is apneic in whom:</p> <ul style="list-style-type: none"> • Less invasive techniques (BLS airway management) have failed AND • OTI has failed <p><u>Patients must meet ALL of the following criteria:</u></p> <ol style="list-style-type: none"> 1. Apnea or inadequate respirations (usually less than eight (8) breaths per minute) 2. Unresponsive to verbal and/or tactile stimuli 3. Absence of a gag reflex 4. Airway management is unsuccessful using BLS maneuvers (BVM with oral / nasal adjuncts) 5. Airway management is unsuccessful after oral endotracheal intubation (OTI) 6. An appropriately sized airway is available 					<p><u>Introduction of the i-gel is contraindicated if ANY of the criteria below exist:</u></p> <ul style="list-style-type: none"> • The patient appears, or is known to be, 14 years of age or younger (pediatric) • The patient is an adult but weighs less than 36 kg / 79.2 lbs. AND their length (measured from crown to heel) falls within the range of any commercially available, standardized length-based pediatric resuscitation tape. • The patient is conscious and has an intact gag reflex • Known ingestion of caustic substances • Unresolved upper foreign body airway obstruction (FBAO) • Severe facial or esophageal trauma, bleeding or swelling of the airway or an unstable jaw fracture • The patient has a known esophageal disease or diseases (e.g., cancer, varices, surgery, etc.) • The patient's airway can be maintained using less invasive methods (i.e., BVM with oral / nasal adjuncts) 	<p>Determine appropriately sized i-gel device based on the patient's estimated weight</p> <p>Apply appropriate, clinically required technique to manually position the head and mandible of the unconscious patient to open the upper airway</p> <p>Insert the i-gel supraglottic airway device into the patient's mouth, directing it towards the hard palate. The cuff outlet should be facing the patient's chin.</p> <p>Advance the i-gel supraglottic airway device with gentle but continuous pressure until definitive resistance is felt. The integral bite block should rest at the incisors.</p> <p>After successful placement of the i-gel, insertion of an appropriately sized OG tube is mandatory.</p>
PULSE OXIMETRY (SpO ₂)	<p><u>When the patient has:</u></p> <ul style="list-style-type: none"> • A chief complaint of respiratory, cardiovascular and neurological complications • Abnormal vital signs • Any sign or symptom that indicates that they would benefit from SpO₂ monitoring 					<ul style="list-style-type: none"> • None 	<p><u>Oxygen administration should be titrated to maintain, or increase, SpO₂ to a minimum of 94%.</u></p> <p>A range of 88-92% is acceptable for patients with a history of COPD</p>

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CARDIAC CARE SKILLS							
AUTOMATED EXTERNAL DEFIBRILLATOR (AED)	• Cardiac arrest	REQUIRES REMSA APPROVAL				<u>The presence of:</u> <ul style="list-style-type: none"> • Palpable pulses • Spontaneous respirations • A DNR • A POLST 	AED patches should not be placed over implanted medical devices, jewelry or transdermal medication patches
MANUAL DEFIBRILLATION	• Ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT) in the cardiac arrest patient				<u>The presence of:</u> <ul style="list-style-type: none"> • Palpable pulses • Spontaneous respirations • A DNR • A POLST • A non-shockable rhythm (NOT VF or VT) 	<u>Settings:</u> Adults: Use manufacturer recommended joule settings Peds: Initial = 2 j / kg. Subsequent = 4 j / kg. <ul style="list-style-type: none"> • Anterior-posterior placement of defibrillation pads is recommended to minimize pain and maximize current conduction. • Patients who are being monitored and have a perfusing rhythm that develops into VF or VT (<i>i.e. - witnessed arrest</i>) should be treated with stacked defibrillation attempts, at escalating energy dosages, per the manufacturer's recommended energy dose. • Chest compressions should be applied between stacked defibrillation attempts • Stacked defibrillation attempts should not exceed three (3) attempts. 	
MECHANICAL CPR DEVICE	• Patients in cardiac arrest		APPLICATION AND USE REQUIRES PROVIDER AGENCY TRAINING			• Patients <u>not</u> in cardiac arrest	

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SYNCHRONIZED CARDIOVERSION	<p><u>Patients experiencing symptomatic supraventricular tachycardia (SVT) or VT with pulses who are exhibiting the following signs and symptoms of systemic poor perfusion:</u></p> <ul style="list-style-type: none"> • Hypotension • Altered mental status • Chest pain • Dyspnea / tachypnea • Diaphoresis • Pale / cool skin <p>AND</p> <ul style="list-style-type: none"> • Have a heart rate greater than 150 in adults • Have a heart rate greater than 180 in children • Have a heart rate greater than 220 in infants <p>SYNCHRONIZED CARDIOVERSION OF PEDIATRIC PATIENTS REQUIRES A BASE HOSPITAL ORDER (BHO)</p>					<ul style="list-style-type: none"> • Patients not experiencing symptomatic SVT or VT with pulses 	<ul style="list-style-type: none"> • Adults: Initial 100j Second 150j Subsequent 200j • Peds: Initial = 1 j / kg. Subsequent = 2 j / kg. • Anterior-posterior placement of defibrillation pads is recommended to minimize pain and maximize current conduction. • An ECG strip of Lead II should always be printed prior to, during and after performing any electrical therapy. Wide complex rhythms may appear to be cardiac dysrhythmias when, in fact, they are paced rhythms (some monitors do not show pacer spikes). • Perform a 12-lead ECG prior to cardioversion only if such a delay does not cause harm to the patient. • Strongly consider Versed for amnesic effects while preparing cardioversion equipment. Use IN/IM administration if IV access is poor. • Do not delay cardioversion in an unstable patient presenting with signs and symptoms of poor perfusion.

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TRANSCUTANEOUS CARDIAC PACING (TCP)	<p><u>Patients experiencing symptomatic bradycardia who are exhibiting the following signs and symptoms of systemic poor perfusion:</u></p> <ul style="list-style-type: none"> • Hypotension • Altered mental status • Chest pain • Dyspnea / tachypnea • Diaphoresis • Pale / cool skin <p>AND</p> <ul style="list-style-type: none"> • Have a heart rate less than 60 <p>TRANSCUTANEOUS CARDIAC PACING OF PEDIATRIC PATIENTS REQUIRES A BASE HOSPITAL ORDER (BHO)</p>					<ul style="list-style-type: none"> • Children less than or equal to 12 years old (bradydysrhythmias in children are usually respiratory related) • Asystolic arrest, unless approved by a base hospital (BHO) 	<p><u>Begin at 20 mA and 70 bpm.</u> <u>Titrate in 5 mA increments to find the minimum current required to maintain electrical and mechanical capture.</u> <u>Increase in 10 bpm increments, up to 100 bpm maximum, to gain adequate cardiac output and tissue perfusion.</u></p> <ul style="list-style-type: none"> • Anterior-posterior placement of pacer pads is recommended to minimize pain and maximize current conduction. • An ECG strip of Lead II should always be printed prior to performing any electrical therapy. Wide complex rhythms may appear to be cardiac dysrhythmias when, in fact, they are paced rhythms (some monitors do not show pacer spikes). • Perform a 12-lead ECG prior to TCP only if such a delay does not cause harm to the patient. • Use IN/IM administration for Versed administration if warranted and if IV access is poor. • Do not delay TCP in patients with poor peripheral vasculature or in patients experiencing high-degree blocks (2nd degree Type II or 3rd degree)

SKILL	INDICATION(S)	PSP	EMT	AEMT	EMT-P	CONTRAINdications	EXPECTATIONS
		BLS Patient Management		ALS Patient Management			
VAGAL MANEUVERS	<p><u>Patients experiencing symptomatic supraventricular tachycardia (SVT) who are exhibiting the following signs and symptoms of systemic poor perfusion:</u></p> <ul style="list-style-type: none"> • Hypotension • Altered mental status • Chest pain • Dyspnea / tachypnea • Diaphoresis • Pale / cool skin <p>AND</p> <ul style="list-style-type: none"> • Have a heart rate greater than 150 in adults • Have a heart rate greater than 180 in children • Have a heart rate greater than 220 in infants 					<p><u>Relative:</u></p> <ul style="list-style-type: none"> • Hypertension • Suspected acute MI • Suspected head/brain injury 	<ul style="list-style-type: none"> • An ECG strip of Lead II should always be printed prior to, during and immediately after to a vagal maneuver in order to capture any potential rhythm change(s) • Perform a 12-lead ECG prior to the patient attempting a vagal maneuver only if such a delay does not cause harm to the patient. • Do not delay cardioversion in an unstable patient presenting with signs and symptoms of poor perfusion.

SKILL	INDICATION(S)	PSP	EMT	AEMT	EMT-P	CONTRAINdications	EXPECTATIONS
		BLS Patient Management	ALS Patient Management	TRAUMA CARE SKILLS			
CERVICAL SPINE IMMOBILIZATION	<p><u>The patient complains of:</u></p> <ul style="list-style-type: none"> • Spinal pain after a confirmed, or suspected, traumatic injury <p>OR</p> <ul style="list-style-type: none"> • Acute neurological deficit following a confirmed, or suspected, traumatic injury <p>THEN</p> <p><u>Establish, maintain, and ensure cervical spine stabilization when NSAID criteria is met:</u></p> <ul style="list-style-type: none"> • Neuro deficits • Spinal Tenderness • Altered Mental Status • Intoxication • Distracting Injury 					<p><u>Victims of any penetrating trauma to the head, neck, and/or torso should not have a rigid cervical spine immobilization device applied unless one of the following are present:</u></p> <ul style="list-style-type: none"> • Acute neurological deficit • Priapism • Anatomic deformity to the spine secondary to injury 	<p>***The long backboard (LBB) is an extrication tool and should only be used to facilitate patient transfer to the stretcher. It is not intended, or appropriate, to use a LBB to achieve or maintain spinal stabilization. Judicious application of the LBB for purposes other than extrication require that the benefits outweigh the risks of application. If the LBB is used, patients should be removed as soon as soon as is safe and practical***</p>
HEMOSTATIC AGENTS	<ul style="list-style-type: none"> • Life-threatening hemorrhage when a tourniquet cannot be used <p>OR</p> <ul style="list-style-type: none"> • When bleeding remains uncontrolled after application of a tourniquet 					<ul style="list-style-type: none"> • None 	<p>Acceptable hemostatic dressings for use in California include the following:</p> <ul style="list-style-type: none"> • QuikClot® Combat Gauze™. • HemCon® ChitoFlex® PRO Dressing. • Celox™ Gauze
JOINT REDUCTION	<ul style="list-style-type: none"> • When manual manipulation of a dislocated joint is required to return it to its proper anatomical alignment. 	NOT PERMITTED IN RIVERSIDE COUNTY					

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		BLS Patient Management	ALS Patient Management				
NEEDLE DECOMPRESSION / THORACOSTOMY	<p><u>Signs and symptoms of tension pneumothorax:</u></p> <ul style="list-style-type: none"> • Air hunger • Chest pain • Elevated hemithorax without respiratory movement • Hypotension • Neck vein distension • Respiratory distress • Tachycardia • Unilateral absence of breath sounds • Cyanosis (late sign) • Tracheal deviation away from the side of the injury (late sign) <p><u>For unilateral decompression:</u></p> <ul style="list-style-type: none"> • Signs and symptoms of tension pneumothorax with compromised cardiac output AND rapidly progressing respiratory distress unrelieved by less invasive means <p><u>For bilateral decompression</u></p> <ul style="list-style-type: none"> • Cardiac arrest with known/suspected torso trauma • Cardiac arrest with a presentation suggesting spontaneous pneumothorax 					<ul style="list-style-type: none"> • When unable to positively identify the appropriate anatomical landmarks • When none of the listed indications are present 	<p><u>Anterior approach:</u></p> <ul style="list-style-type: none"> • Second (2nd) intercostal space at the midclavicular line immediately above the third (3rd) rib (2 ICS @ MCL) • Third (3rd) intercostal space at the midclavicular line immediately above the fourth (4th) rib (3 ICS @ MCL) <p><u>Anterolateral approach:</u></p> <ul style="list-style-type: none"> • Fourth (4th) intercostal space at the anterior axillary line immediately above the fifth (5th) rib (4 ICS @ AAL) • Fifth (5th) intercostal space at the anterior axillary line immediately above the sixth (6th) rib (5 ICS @ AAL) <p><u>Lateral approach:</u></p> <ul style="list-style-type: none"> • Fourth (4th) intercostal space at the midaxillary line immediately above the fifth (5th) rib (4 ICS @ MAL) • Fifth (5th) intercostal space at the midaxillary line immediately above the sixth (6th) rib (5 ICS @ MAL)

SKILL	INDICATION(S)	PSP	EMT	AEMT	EMT-P	CONTRAINdications	EXPECTATIONS
		BLS Patient Management	ALS Patient Management				
TOURNIQUET APPLICATION	<ul style="list-style-type: none"> • Life-threatening hemorrhage when bleeding is uncontrolled after direct pressure has been applied 					<ul style="list-style-type: none"> • When bleeding is controlled after direct pressure has been applied 	<ul style="list-style-type: none"> • Tourniquets must be approved for use by the Co-TCCC and the SWAT-T • Do not delay tourniquet application to extricate / load patient, establish IVs, or other treatments • If the patient's condition allows, use of a tourniquet prior to TXA administration is recommended • Pain management should be considered unless clinically contraindicated