

DIVISION OF PUBLIC HEALTH
EMERGENCY MEDICAL SERVICES

Date: June 30, 2011
To: Holders of EMS Policy and Procedure Manuals
From: Bill Teufel, MD
EMS Agency Medical Director
Subject: Update to Policy Manual, Change Notice #30

Enclosed please find Update #30 to the EMS Policy and Procedure Manual. These new and revised policies and procedures are effective **July 1, 2011**. Please update the Record of Change page and replace the Table of Contents and Signature page.

Revised Policies and Procedures include:

- 4613 Trauma Triage & Destination Guideline
- ALS PR 8 Needle Thoracostomy / Pleural Decompression
- ALS PR 11 External Cardiac Pacing
- ATG 1 Routine Medical Care (RMC) ALS
- ATG 4 ALS to BLS Transfer of Care
- ATG 6 Determination of Death ALS
- BLS 3 Bronchospasm / Asthma / COPD
- BLS 5 Determination of Death ALS
- BLS PR 4 Administration of EPI-Pen
- C8 Chest Pain / Acute Coronary Syndrome ALS
- GPC 10 Sexual Assault
- P1 Pediatric Pulseless Arrest
- P2 Newborn Resuscitation
- P3 Pediatric Respiratory Distress
- P4 Pediatric Bradycardia
- P6 Pediatric Tachycardia Poor Perfusion
- P7 Pediatric Shock
- P8 Allergic Reaction
- P9 Pediatric Seizure
- P10 Pediatric Altered Level of Consciousness (ALOC)
- P11 Pediatric Toxic Exposures
- P12 Pediatric Burns
- P13 Pediatric Trauma
- P14 Pediatric Apparent Life-Threatening Event (ALTE)
- P15 Pediatric Pain Management
- P16 Pediatric Sexual Assault

New Policies and Procedures include:

- C10 Return of Spontaneous Circulation (ROSC)

Deleted Policies include:

- P5 Pediatric Tachycardia Adequate Perfusion

SPECIAL NOTIFICATION:

Effective July 1, 2011, all pediatric patients are to have the appropriate color-coded band applied in the field as outlined in the revised pediatric policies. These bands have been distributed to all providers at no charge, thanks to Kaiser San Rafael.

Draft revised policies 4100 EMT/First Responder – AED Program and 4101 EMT/First Responder AED Provider are being placed on hold, so all existing policies concerning EMT/First Responder will remain in place until further notice.

If you have not received training on these changes, please contact your CQI Liaison or Training Officer. Please ensure that the changes are made in your manual.

COUNTY OF MARIN

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Division of Public Health Services

Emergency Medical Services Agency

Policy and Procedure Manual

July 1, 2011



Miles Julihn, EMS Administrator, EMS Agency



William L. Teufel, MD, Medical Director, EMS Agency

EMS Policy & Procedures Manual

Record of Change

Keep your policy manual current. After receiving and filing additional or revised policies/protocols, initial and date the block following the appropriate change.

There should not be any blank boxes between initialed blocks; this means you either failed to record the CHANGE NOTICE or have not received it. Notify the Marin County EMS Office if you did not receive a CHANGE NOTICE.

No.	Initial	Date	No.	Initial	Date	No.	Initial	Date
1		11/94	19		07/2003	37		
2		08/95	20		09/2003	38		
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EMS Program Policy & Procedure Manual

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TRAUMA TRIAGE and DESTINATION GUIDELINE POLICY

I. PURPOSE

To provide additional explanation and guidance for the Marin County Trauma Triage Criteria Tool to help identify trauma patients in the field and, based upon their injuries, direct their transport to an appropriate level of trauma care facility.

II. RELATED POLICIES

- A. Service Area for Hospitals, #4603
- B. EMS Aircraft, #5100
- C. Ambulance Diversion Policy, #5400
- D. Destination Guidelines, GPC 4
- E. Determination of Death, ATG 6
- F. Multi-Casualty Incident, GPC 12

III. DEFINITIONS

- A. *Designated trauma center* refers to an acute care facility holding designation as a Level I, Level II, Level III, or EDAT. In Marin County, Marin General Hospital is the designated “Level III trauma center” and Kaiser is the designated “EDAT.”
- B. “*Provide Trauma Notification*” means that field personnel will advise the trauma center as soon as possible of their impending arrival by providing a Trauma Notification (see Trauma Triage Tool).
- C. *Time closest facility* is that facility which can be reached in the shortest amount of time.

IV. GENERAL POLICY

- A. It is the overall goal of the Marin County Trauma System to provide treatment of injured patients at Marin County hospitals.
- B. Whenever physician consultation is indicated within this policy, contact shall be made with Marin General Hospital Level III trauma center.
- C. The following policy statements pertain to use of the Trauma Triage Tool attached as Appendix A:
 - 1. Patients shall be determined to meet criteria for transport to a designated trauma center if they meet the criteria listed in the Trauma Triage Tool (see Appendix A).

2. Physician consultation is REQUIRED in the following circumstances:
 - a. The paramedic is unable to transport the patient to the indicated facility in an expedient manner;
 - b. The paramedic assesses the patient and scene conditions and believes transport to a different level of care is indicated;
 - c. Patient requests a facility not indicated by the Trauma Triage Criteria Tool;
 - d. Field and/or flight crew assesses the patient, scene conditions and heliport availability and believes an emergency transport to a Marin County facility via helicopter is indicated.
 3. Physician consultation is RECOMMENDED whenever assistance in resolving treatment decisions or transport destinations is desired.
 4. Unmanageable airway: Patients with airway compromise unmanageable by BLS or ALS adjuncts will be transported to the closest receiving facility.
 5. Traumatic Arrest in the Field Prior to Paramedic Arrival: Patients found in cardiopulmonary arrest due to blunt or penetrating trauma will be determined dead at the scene and not transported. Determination of death must include the application of a monitor and verification of asystole. (refer to policy ATG 6). Exceptions may be made at paramedic discretion in socially appropriate cases, i.e., personnel safety at the scene, high public visibility, or pediatric patients. Multicasualty incidents (as defined by the Marin County Emergency Medical Response Plan) and Disasters are not subject to the provisions of this policy. Death may be declared according to START triage criteria.
 6. Traumatic Arrest in the Presence of Paramedics
 - a. Traumatic arrest with paramedics on scene – patient will be transported to the closest basic emergency department.
 - b. Traumatic arrest while enroute to trauma center – continue to trauma center unless travel time to an alternate facility is ten minutes less than travel time to the trauma center.
- D. Adult patients who meet Physiologic or Anatomic Criteria:
1. Determine the estimated ground transport time to the Level III trauma center, considering traffic conditions, weather, and other relevant factors. Estimated ground transport time is evaluated from the time the patient is packaged and ready for transport.
 2. Determine the estimated air transport time to the Level II: air transport time includes: minutes until arrival (if helicopter is not already on the ground); scene and load time of flight crew (typically 10”); flight time to trauma center; and off-load time (typically 7-10 minutes). If helicopter is on the ground at the time the patient is ready for transport, then air transport time is evaluated as time to load, flight time to trauma center and time to off-load to the ED.

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3. Choose the method of transport that will deliver the patient to definitive care in the shortest time (air transport to Level II versus ground transport to the Level III trauma center).
- E. Pediatric patients who meet Physiologic or Anatomic Criteria:
1. Transport directly to Children's Hospital Oakland (see Trauma Triage Tool).
 2. If ETA (transport time) is anticipated to be >30 minutes, physician consultation should be obtained with the Level III trauma center to determine destination.
- F. Incidents involving three or more patients meeting Physiologic or Anatomic Criteria will be handled in the following manner:
1. Prehospital providers should obtain a physician consultation from the Level III trauma center, regarding destinations anytime three or more patients meet Physiologic or Anatomic Criteria. If an incident is deemed to be an MCI, prehospital providers will utilize the multicasualty plan for destination guidelines.
 2. Helicopter dispatch should be initiated for all incidents in which three or more patients meet A&P criteria.
 3. Patients meeting physiologic and anatomic triage criteria that the Level III trauma center cannot accept should be transported to an out-of-county Level I or II trauma center in the most appropriate and expedient manner.
- G. The EDAT will be used for patients meeting mechanism of injury trauma triage criteria that Level III trauma center is unable to accept.

NEEDLE THORACOSTOMY/ PLEURAL DECOMPRESSION PROCEDURE

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- To relieve tension pneumothorax as indicated by a combination of the following:
 - Severe dyspnea and/ or difficulty with ventilation, especially with an intubated patient
 - ALOC and or agitation
 - Absent or unequal breath sounds on affected side
 - Signs of shock
 - Neck vein distention
 - Paradoxical movement of the chest
 - Hyper resonance to percussion on the affected side
 - Tracheal shift away from the affected side

EQUIPMENT

- 14 gauge or larger needle \geq 2 inches
- Heimlich or other one-way valve
- 10 ml syringe

PROCEDURE

- Choose appropriate site on the affected side:
 - If patient head is elevated, locate the second intercostal space, mid-clavicular line
 - If patient is flat, locate the 4th or 5th intercostal space, midaxillary line
- Prepare site with Betadine
- Attach the large gauge IV needle to a large syringe.
- With patient exhaling, introduce the needle at a 90 degree angle, just over the rib at the selected site.
- Advancing slightly superior to the rib, continue until lack of resistance or a “pop” is felt as the needle enters the pleural space.
- If the air and/ or blood returns under pressure or is easily aspirated, continue to advance the catheter superiorly and remove the needle.
- When no further air escapes, attach a one- way valve.
- Secure the catheter with the valve in a dependent position.
- Reassess patient

EXTERNAL CARDIAC PACING PROCEDURE

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Symptomatic bradycardia which may include: HR < 50 with decreasing perfusion, chest pain, shortness of breath, decreased LOC, pulmonary congestion or congestive heart failure
- Asystole or PEA witnessed by paramedic or first responder and determined to be of short duration

CRITICAL INFORMATION

- If patient is unstable, do not delay pacing for IV access


PHYSICIAN CONSULT

- Concomitant administration of **Midazolam** and **Morphine Sulfate**

EQUIPMENT

- Cardiac monitor/ defibrillator/ external pacemaker
- Pacing capable electrode pads

PROCEDURE

- ALS RMC
- Administer **NS** 250 ml bolus IV/IO
- If patient is conscious, administer **Midazolam** 1 mg slow IV/IO/IN. Titrate to desired degree of sedation 1-2 mg every 3 minutes, to a maximum dose of 0.1 mg/kg.
-  **Morphine Sulfate** IV/IO/IM for pain management as needed; maximum dose of 5 mg.
- If tolerated, position patient supine, applying pacing electrodes to bare chest according to manufacturers recommendations (anterior/ posterior or sternal/ apex).
- Confirm and record ECG.
- Set pacing rate at 80, turn on pacing module, and confirm pacer activity on monitor.
- Increase output control until capture occurs or maximum output is reached.
- Once capture is confirmed, increase output by 10%
- Confirm pulses with paced rhythm.
- Monitor vital signs and need for further sedatives or pain control.

DOCUMENTATION

- MiliAmps needed for capture
- *Time pacing started/ stopped*

RELATED POLICIES/ PROCEDURES

- Bradydysrhythmia C 4
- Adult Pain Management ATG 2

ROUTINE MEDICAL CARE (RMC) ALS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- *To define procedures indicated by ALS RMC per treatment guidelines or*
- Patient condition warrants ALS care/assessment, but does not meet the indication of any other treatment policy

TREATMENT

- As indicated:
 - Vascular access -
 - Blood glucose monitoring as indicated by ALOC or patient history
 - Cardiac monitor -
 - Advanced airway management -
 - Pulse oximetry -
 - ETCO₂
 - 12 lead ECG -
 - For pediatric patients, use length based color-coded resuscitation tape and apply corresponding wrist band

ALS TO BLS TRANSFER OF CARE

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Patient needs or desires transport to a hospital and does not meet criteria for ALS interventions
- Criteria for transfer of care must include:
 - Patent airway, maintained without assistance or adjuncts
 - No hemodynamic changes are anticipated during transport
 - No imminent changes are anticipated in the patient's present condition
 - GCS \geq 14

CRITICAL INFORMATION

- The EMT in attendance must be comfortable with the patient's condition
- Transport by the ALS transport ambulance should be considered if the transfer of care to the BLS staffed ambulance would incur a time delay greater than the projected transport time to the intended receiving facility

SPECIAL CONSIDERATION

- The ALS first responder or provider will complete a County approved Patient Care Record (PCR) and submit the data electronically as described in Policy 7006.
- The ALS first responder will provide the BLS transport unit with a handwritten record detailing the ALS assessment, a copy of which will be left at the receiving hospital.

DOCUMENTATION- ESSENTIAL ELEMENTS

- The transfer of patient responsibility
- ALS transferring unit is identified on the BLS PCR

RELATED POLICIES/ PROCEDURES

- Patient Care Record 7006

DETERMINATION OF DEATH - ALS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

Patient in cardiac arrest where resuscitation may be limited or not indicated and who does not meet criteria for BLS Determination of Death

PROCEDURE

- Confirm pulseless and apneic
- Determination of death can be made prior to initiating resuscitation if all of the following are present:
 - Presenting rhythm is asystole and has been documented in two monitoring leads for one minute or in one lead if an AED is the only available monitor
 - Event was unwitnessed
 - Bystander CPR was not initiated
 - No AED or manual shock applied
- If determination of death cannot be made, perform ALS resuscitation for 30 minutes or until three rounds of medication appropriate for presenting rhythm have been administered.
 - Resuscitation may be discontinued and determination of death made when any of the following are present:
 - Information becomes available precluding initiation of resuscitation efforts
 - ETCO₂ is less than or equal to 10mm/Hg after 20 minutes. If ETCO₂ not available:
 - The above procedures have been completed and no ROSC has occurred and the rhythm is non-perfusing wide and ventricular complex at a rate less than 40 or is asystole
- When applicable, notify the appropriate law enforcement agency and remain on the scene until law enforcement or coroner arrives
- Complete the Determination of Death form and leave a copy at the scene if the patient will be transferred to the coroner.
- If criteria for determination of death are met when patient is enroute to the hospital, notify the receiving facility

PHYSICIAN CONSULT

- Indications are present that resuscitative efforts are not wanted or appropriate (terminal illness, family request, etc.), and above criteria is not present

DOCUMENTATION- ESSENTIAL ELEMENTS

- Criteria for discretionary determination of death (i.e., DNR or valid POLST form)
- Name and phone number of physician authorizing termination of resuscitation
- When possible, attach copy of DNR to PCR or include type of DNR and physician information.

RELATED POLICIES/ PROCEDURES

- BLS Determination of Death BLS 5
- DNR GPC 7
- Asystole C3
- Patient Care Record (PCR) 7006

BRONCHOSPASM/ ASTHMA/ COPD

BLS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS


INDICATION

- Acute or progressive shortness of breath, chest discomfort, wheezing, cyanosis

PHYSICIAN CONSULT

- **EpiPen** for severe asthma

TREATMENT

- BLS RMC
- Mild to moderate (alert, may be unable to speak full sentences, limited accessory muscle use)
 - Assist patient with own medication if available
-  Severe symptoms (altered mental status, minimal air movement, inability to speak, cyanosis)
 - **EpiPen**

SPECIAL CONSIDERATION

- Suspect carbon monoxide in cases of exposure to fire; do not rely on pulse oximetry in this setting

DOCUMENTATION - ESSENTIAL ELEMENTS

- Physical finding of wheezing, decreased lung sounds
- Administration of oxygen

RELATED POLICIES/ PROCEDURES

- Auto Injector EpiPen BLS PR 4

DETERMINATION OF DEATH FIRST RESPONDER BLS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

Patient in cardiac arrest where resuscitation may not be indicated

PROCEDURE

- Confirm pulseless and apneic
- CPR may be withheld and death declared if ANY of the following criteria are met:
 - Obvious clinical signs of irreversible death (e.g., rigor mortis, dependent lividity, decapitation, transection, or decomposition)
 - A valid, signed, and dated advance directive or POLST form indicating that resuscitation is not desired
 - MCI incidents-where death is determined according to S.T.A.R.T. triage
- When patient meets criteria for declaration of death in the field:
 - Notify the appropriate law enforcement agency if applicable
 - Remain on the scene until law enforcement or coroner arrive if applicable
 - Complete a Field Determination of Death Form at scene and leave one copy for coroner if applicable

DOCUMENTATION-ESSENTIAL ELEMENTS

- Criteria for discretionary determination of death (i.e., DNR or valid POLST form)
- When possible, attach copy of DNR to PCR or include type of DNR and physician information.

RELATED POLICIES/ PROCEDURES

- DNR GPC 7
- BLS PR 6
- Patient Care Record (PCR) 7006

ADMINISTRATION OF EPI-PEN BLS PROCEDURE

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Patients experiencing anaphylactic reaction and/ or severe asthma. The following symptoms may be present:
 - Stridor
 - Bronchospasm / wheezing / diminished breath sounds
 - Severe abdominal pain
 - Respiratory distress (nasal flaring or grunting in pediatric patients)
 - Tachycardia
 - Shock (SBP < 100)
 - Edema of the tongue, lips, face
 - Generalized urticaria / hives


PHYSICIAN CONSULT

- Patients presenting with severe asthma
- Necessity for a second EpiPen dose

EQUIPMENT

- Auto injector **EpiPen®**
- Auto injector **EpiPen Jr.®**

PROCEDURE

- BLS RMC
- Remove allergens
- Administer appropriate **EpiPen®**
 - **Adult Auto-Injector** (0.3 mg IM/ 0.3 ml) (weight >30 kg/ 66 lbs)
 - **Pediatric Auto-Injector** (0.15 mg IM/ 0.15 ml) (weight <30 kg/ 66 lbs)
- Record time of injection and reassess in 2 minutes
- Monitor airway and be prepared to assist with ventilations if necessary
-  A second injection in 5 minutes may be necessary if patient's condition does not improve.
- Transfer care to ALS personnel as soon as possible

SPECIAL CONSIDERATION

- Training shall include the manufacturer's instructions as well as demonstration of skills competency every two years after initial training according to Title 22, Div. 9, Chapter 2.
- Training in this procedure is the responsibility of the provider agency who desires to utilize this procedure

RETURN OF SPONTANEOUS CIRCULATION (ROSC) ALS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- The presence of a palpable pulse and/or blood pressure after cardiac arrest

TREATMENT

- ALS RMC
 - Maintain oxygen saturation 94%-99%
 - Perform ETCO₂ if available
 - Avoid excessive ventilation. Start at 10-12 breaths/min and titrate to target ETCO₂ 35-40 mm Hg
- 12-lead ECG / Early notification if STEMI
- Elevate head 30° if patient is conscious
- If patient remains comatose, initiate therapeutic hypothermia (do not initiate if arrest is due to hypothermia)
 - Expose patient and apply 8 ice packs: 2 to head, 1 over each carotid artery, 1 in each axillae, and 1 on each femoral artery at groin
 - If available, rapid infusion of ice-cold IV NS at 30 ml/kg
- Transport to nearest available STEMI Receiving Center
- For BP < 90 mm Hg:
 - NS 1-2 liter bolus (may use ice-cold fluids if inducing hypothermia); if no improvement:
 - **Dopamine** 10 mcg/kg/min. Titrate to SBP 100

DOPAMINE			
400 mg in 250 ml D5W (pre-mixed)		60 drops/min = 60 ml/hr	
Weight (kg)	gtts/min to = 10 ug/kg/min	Weight (kg)	gtts/min to = 10 ug/kg/min
35-44	15 gtts/min	85-94	35 gtts/min
45-59	20 gtts/min	95-109	40 gtts/min
60-74	25 gtts/min	110 & up	45 gtts/min
75-84	30 gtts/min		

SPECIAL CONSIDERATION

- Consider and treat possible contributing factors:

<ul style="list-style-type: none">HypovolemiaHypoxemiaHydrogen ion (acidosis)Hypo/HyperkalemiaHypoglycemiaHypothermia	<ul style="list-style-type: none">Toxins (overdoses)Tamponade, cardiacTension pneumothoraxThrombosis (coronary / pulmonary)Trauma
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DOCUMENTATION- ESSENTIAL ELEMENTS

- Cardiac rhythm documentation
- 12-lead findings
- Time therapeutic hypothermia initiated

RELATED POLICIES/ PROCEDURES

- 12-lead Electrocardiogram ALS PR 12
- Destination Guidelines GPC 4

CHEST PAIN/ ACUTE CORONARY SYNDROME ALS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Chest discomfort or pain, suggestive of cardiac origin.
- Other symptoms of Acute Coronary Syndrome (ACS) which may include weakness, nausea, vomiting, diaphoresis, dyspnea, dizziness, palpitations, "indigestion"
- Atypical symptoms or "silent MIs" (women, elderly, and diabetics)

PHYSICIAN CONSULT

- Additional treatment for ongoing pain when BP<100

TREATMENT

- ALS RMC
- **ASA** 162-325 mg (chewable), even if patient has taken daily ASA dose
- 12-lead ECG; if elevation in leads II, III, and AVF, perform V4R assessment
- For chest discomfort or pain, **NTG** 0.4 mg SL/ spray, MR q 5 min. if systolic BP > 100
 - Withhold the NTG if the patient has RVI or has taken erectile dysfunction (ED) medication within the last 24 hrs (Viagra/Levitra) or 36 hrs (Cialis).
- If pain persists give **Morphine Sulfate** 2-5 mg slowly IV; MR q 2-3 minutes to a total of 10 mg.
- Consider NS 250cc IV fluid bolus if BP < 100 and lungs are clear.
- For recurrent episodes of ventricular tachycardia with persistent chest pain, administer **Amiodarone** 150 mg in 100 ml NS, IV/IO; infuse over 10 minutes. May repeat q 10 minutes as needed.

SPECIAL CONSIDERATION

- IV access before NTG if any one of the following applies:
 - SBP <120
 - Patient does not routinely take NTG
- Consider other potential causes of chest pain: pulmonary embolus, pneumonia, aortic aneurysm and pneumothorax.
- Infarctions may be present with normal 12-leads.

DOCUMENTATION- ESSENTIAL ELEMENTS

- OPQRST information
- Vital signs before/after **NTG** administration
- Cardiac rhythm documentation
- ECG findings
- Erectile dysfunction medications taken
- Level of pain

RELATED POLICIES/ PROCEDURES

- 12-lead Electrocardiogram ALS PR 12
- Destination Guidelines GPC 4

SEXUAL ASSAULT

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Patients with complaints consistent with sexual assault

CRITICAL INFORMATION

- Preserve possible evidence and advise patient not to clean, bathe or change clothes until after examination by hospital personnel
- Notify police and dispatch of nature of call

TREATMENT

- BLS / ALS RMC
- Calm/ reassure patient
- Assign responder of same gender as patient if possible
- Treat medical conditions, traumatic injuries per protocol
- Transport per Destination Guidelines Policy
- If patient/ Designated Decision Maker (DDM) refuses transport, instruct patient not to bathe, shower, or change clothes until after contact with and advice by law enforcement. Advise patient of alternative care/ transport options per AMA and RAS Policy.

SPECIAL CONSIDERATION

- If patient's clothing is removed and law enforcement is not at scene, place clothing in a paper bag and bring to the hospital. Do not use a plastic bag.

DOCUMENTATION- ESSENTIAL ELEMENTS

- Date and time of alleged assault
- Details of injuries noted
- Patient description of mechanism of injury

RELATED POLICIES/ PROCEDURES

- AMA Policy GPC 2
- RAS Policy GPC 3
- Destination Guidelines Policy GPC 4
- ALS to BLS Transfer of Care ATG 4
- Trauma Triage and Destination Guidelines Policy 4613

PEDIATRIC PULSELESS ARREST

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Pulseless, chaotic, disorganized electrical rhythm (Ventricular Fibrillation/ VF)
- Pulseless, organized “wide complex” rhythm, rate > 150/ min (Ventricular Tachycardia/ VT)
- Electrical activity other than VF or VT that does not produce a palpable pulse (Asystole, Pulseless Electrical Activity/ PEA)

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Monophasic and biphasic doses are the same
- Witnessed or unwitnessed
- Bystander CPR
- If arrest witnessed, time without CPR

TREATMENT

- CPR for 2 minutes then treat according to length based color-coded tape or see below
- ALS RMC

▪ VF/ VT:

- Defibrillate: Manual - 2 J/kg; if unavailable use AED with dose attenuator; CPR for 2 minutes
- Defibrillate: Manual - 4 J/kg; if unavailable use AED with dose attenuator; CPR for 2 minutes
- **Epinephrine** IV/IO (1:10,000) 0.01mg/kg; repeat q 3-5 min.
- CPR for 2 minutes
- Defibrillate: Manual - 4 J/ kg; if unavailable use AED with dose attenuator; CPR for 2 minutes
- **Amiodarone** 5 mg/kg IVP/IO (max. dose 300 mg); may repeat up to two times for refractory rhythm

▪ Asystole/ PEA:

- **Epinephrine** IV/ IO (1:10,000) 0.01 mg/kg; repeat q 3-5 min.
- Give 5 cycles of CPR and reassess rhythm

SPECIAL CONSIDERATION

- If unable to access IV/IO, **Epinephrine** (1:1,000) ET 0.1mg/ kg; repeat q 3-5 min
- If pediatric dose attenuator is not available, use a standard AED
- Consider and treat possible contributing factors:

<ul style="list-style-type: none"> ▪ Hypovolemia ▪ Hypoxemia ▪ Hydrogen ion (acidosis) ▪ Hypo/Hyperkalemia ▪ Hypoglycemia ▪ Hypothermia 	<ul style="list-style-type: none"> ▪ Toxins (overdoses) ▪ Tamponade, cardiac ▪ Tension pneumothorax ▪ Thrombosis (coronary / pulmonary) ▪ Trauma
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NEWBORN RESUSCITATION

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Prehospital delivery of a newborn

CRITICAL INFORMATION

- Assess for term gestation, crying or breathing, heart rate, and muscle tone.
- Use length based color-coded resuscitation tape, apply corresponding wrist band, and treat according to tape recommendations.

TREATMENT

- Provide routine newborn care if no abnormal findings on initial exam (see assessment above).
 - Provide warmth
 - Clear airway if necessary
 - Dry / stimulate
- If weak / absent respiratory effort or decreased / absent muscle tone:
 - Provide warmth
 - Open airway
 - Stimulate
- Reassess heart rate and respiratory effort
 - If HR > 100/MIN, breathing is unlabored, and patient's color improves, continue supportive care
 - If HR > 100/MIN and breathing is labored and color does not improve, provide supplemental O₂
 - If HR < 100/MIN perform BVM at 40-60 per minute; consider ETT
 - If HR remains < 60/MIN perform BVM with chest compressions
 - 90 compressions / 30 ventilations per minute
 - If HR < 60 continues, perform endotracheal intubation and administer **Epinephrine** 1:10,000 0.01mg/kg ET/IO/IV (may give up to 0.1mg/kg via ET). Repeat every 3-5 min
- IV/IO if not previously initiated
- Administer fluid bolus of 10 ml/kg IV/IO
- Assess for hypoglycemia and treat as needed
- Continuous assessment of heart rate and respiratory effort en route

SPECIAL CONSIDERATIONS

- **Epinephrine** administration is indicated for asystole or spontaneous heart rate less than 60 beats per minute despite adequate ventilation with 100% oxygen and chest compressions after 30 seconds. Epinephrine by ETT is the fastest route and minimizes delay in resuscitation.
 - **Narcan** is contraindicated in neonatal resuscitation.
- Clamp and cut cord after one minute.
- Peripheral cyanosis is normal.

DOCUMENTATION- ESSENTIAL ELEMENTS

- Presence of meconium
- APGAR score at 1 and 5 minutes

APGAR SCORE			
Sign	0	1	2
Heart rate (bpm)	Absent	Slow (<100)	≥100
Respirations	Absent	Slow, irregular	Good, crying
Muscle tone	Limp	Some flexion	Active motion
Reflex irritability	No response	Grimace	Cough, sneeze, cry
Color	Blue or pale	Pink body with blue extremities	Completely pink

PEDIATRIC RESPIRATORY DISTRESS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Patient exhibits any of the following:
 - Wheezing
 - Stridor
 - Grunting
 - Nasal flaring
 - Apnea

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years

TREATMENT

- ALS RMC
- Position of comfort to maintain airway
- Allow parent to administer oxygen if possible
- Upper Airway/ Stridor:
 - If moderate to severe respiratory distress, **Epinephrine** 1:1,000 5 mg in 5 ml via nebulizer
- Lower Airway Obstruction/ Wheezing:
 - **Albuterol** 2.5 mg in 3 ml NS via HHN, mask, or bag-valve-mask; MR x 1
 - If response inadequate, **Epinephrine** 1:1,000 (0.01 mg/kg) IM, max. single dose 0.3 mg
- Foreign Body Obstruction:
 - Attempt to clear airway:
 - < 1 year: 5 back blows and 5 chest thrusts
 - > 1 year: 5 abdominal thrusts
 - Visualize larynx and remove foreign body with Magill forceps
- Respiratory failure/ apnea/ complete obstruction.
 - Attempt positive pressure ventilation via bag-valve-mask, if unable to ventilate, attempt intubation
 - If unsuccessful, consider needle cricothyroidotomy

SPECIAL CONSIDERATIONS

- Assess key history factors: recent hospitalizations, asthma, allergies, croup, and medication usage

RELATED POLICIES/ PROCEDURES

- Cricothyroidotomy ALS PR 5

PEDIATRIC BRADYCARDIA

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- HR < 60 causing cardio-respiratory compromise

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years
- History of exposure to substances or medications

TREATMENT

- ALS RMC
- 12-lead ECG
- Obtain IV/IO access
- If responsive and no signs of shock
 - Monitor and transport
- If shock present:
 - Chest compressions if HR < 60 and patient is < 8 years with poor perfusion:
 - **Epinephrine** 1:10,000 IV/IO: 0.01 mg/kg (0.1 ml/kg); MR q 3-5 min.
 - If first degree block or Mobitz type I, **Atropine** 0.02 mg/kg IV/IO (max single dose: 1 mg; minimum single dose: 0.1 mg); MR x 1
 - Consider endotracheal intubation
- If vascular access is not possible or delayed:
 - **Epinephrine** 1:1,000 (0.1 ml/ kg) ET. MR q 3-5 min.
 - **Atropine** 0.03 mg/kg ET (min. dose 0.1mg; max. dose 0.5 mg for child/ 1 mg adolescent); MR X 1
- Consider cardiac pacing if no response to above treatment.

SPECIAL CONSIDERATIONS

- Consider and treat possible contributing factors:

<ul style="list-style-type: none"> ▪ Hypovolemia ▪ Hypoxemia ▪ Hydrogen ion (acidosis) ▪ Hypo/Hyperkalemia ▪ Hypoglycemia ▪ Hypothermia 	<ul style="list-style-type: none"> ▪ Toxins (overdoses) ▪ Tamponade, cardiac ▪ Tension pneumothorax ▪ Thrombosis (coronary / pulmonary) ▪ Trauma
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RELATED POLICIES/ PROCEDURES

- External Cardiac Pacing Procedure ALS PR 11

PEDIATRIC TACHYCARDIA POOR PERFUSION

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Rapid heart rate (HR> 220 infant: HR> 180 child) with pulse and poor perfusion


PHYSICIAN CONSULT

- **Amiodarone**

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years
- Monophasic and biphasic doses are the same

TREATMENT

- ALS RMC
- 12-lead EKG
- If normal QRS \leq 0.09 seconds; Probable Sinus Tachycardia or Supraventricular Tachycardia:
 - Consider vagal maneuvers, but do not delay other treatments
 - If vascular access readily available, **Adenosine** 0.1mg/kg IV/ IO; max first dose 6 mg. MR X 1; (double the dose), maximum dose 12 mg. Follow each dose with rapid 10 ml flush.
 - Premedicate with **Midazolam** 0.1 mg/kg IV. Do not delay cardioversion if patient unstable.
 - Cardiovert: 0.5-1J/kg; if not effective, increase to 2 J/kg
- Wide QRS \geq 0.09 seconds; Probable Ventricular Tachycardia:
 - Cardiovert (see above)
 -  **Amiodarone** if no response to cardioversion: 5 mg/kg IV over 20-60 minutes

SPECIAL CONSIDERATION

- Consider and treat possible contributing factors:

- | | |
|---|---|
| <ul style="list-style-type: none"> ▪ Hypovolemia ▪ Hypoxemia ▪ Hydrogen ion (acidosis) ▪ Hypo/Hyperkalemia ▪ Hypoglycemia ▪ Hypothermia | <ul style="list-style-type: none"> ▪ Toxins (overdoses) ▪ Tamponade, cardiac ▪ Tension pneumothorax ▪ Thrombosis (coronary / pulmonary) ▪ Pain ▪ Trauma |
|---|---|

PEDIATRIC SHOCK

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Inadequate organ and tissue perfusion to meet metabolic demands

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years

TREATMENT

- ALS RMC
- IV/ IO X 2; Use length-based color-coded resuscitation tape to determine fluid boluses; repeat bolus as needed
- Check blood glucose and treat if <60 mg/dl (<40 mg/dl neonate):
 - Neonate = **D10W** 2 ml/kg IV/IO
 - Neonate - 2 years = **D25W** 2 ml/kg IV/IO
 - ≥2 years = **D50W** 1 ml/kg IV/IO
 - If unable to establish vascular access; **Glucagon** .03 mg/kg (max = 1 mg) IM; MR x 2 q 15 minute intervals
- For symptoms of anaphylaxis, follow Allergic Reaction Policy P 8

SPECIAL CONSIDERATION

- Fluid resuscitation may require 40-60 ml/kg or more

PEDIATRIC ALLERGIC REACTION

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Exposure to allergens causing airway, breathing and/or circulatory impairment

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years
- Exposure to common allergens (stings, drugs, nuts, seafood, meds), prior allergic reactions
- Presence of respiratory symptoms (wheezing, stridor)

TREATMENT

- ALS RMC
- Mild (hives, rash)
 - **Benadryl** 1mg/kg IM (MR in 10 minutes; max. dose 50 mg)
- Moderate (swelling of mucous membranes, bronchospasms)/ Severe (ALOC, hypoperfusion):
 - **Epinephrine** IM (1:1000) 0.01mg/kg (MR in 15 minutes); max. dose 0.5 mg
 - **Albuterol** 2.5 mg/3 ml NS HHN if bronchospasms present; MR X1 if no improvement
 - If hypotensive, fluid challenge **NS** 20 ml/kg IV/IO, MR
 - If no palpable pulse or BP; **Epinephrine** IV/IO (1:10,000) 0.01mg/kg; MR q 3-5 minutes

SPECIAL CONSIDERATION

- **Glucagon** 0.03 mg/kg IM for patients on beta blockers to reverse blockage

DOCUMENTATION- ESSENTIAL ELEMENTS

- Allergen if known

PEDIATRIC SEIZURES

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Recurring or continuous generalized seizures with ALOC

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years
- Evaluate for and treat hypoglycemia, hypoxia, narcotic overdose, trauma, fever, etc. prior to administering anti-seizure medications

TREATMENT

- ALS RMC
- Vascular access for prolonged seizures
- Check blood glucose and treat if <60 mg/dl (<40 mg/dl neonate):
 - Neonate = **D10W** 2 ml/kg IV/IO
 - < 2 years = **D25W** 2 ml/kg IV/IO
 - ≥ 2 years = **D50W** 1 ml/kg IV/IO
 - If unable to establish vascular access; **Glucagon** .03 mg/kg (max = 1 mg) IM; MR x 2 q 15 minute intervals
- **Midazolam (Versed)**
 - IV / IO: 0.1 mg/kg. May repeat every 5 minutes until seizure stops and/or maximum dose of 5 mg is reached.
 - IN / IM: 0.2 mg/kg (split dose in half for each nostril; maximum dose of 2 cc per nostril). May repeat every 5 minutes until seizure stops and/or maximum dose of 5 mg is reached.

DOCUMENTATION- ESSENTIAL ELEMENTS

- Number, description, and duration of seizures

RELATED POLICIES/ PROCEDURES

- Intranasal Medications Midazolam(Versed) & Narcan ALS PR 7

PEDIATRIC ALTERED LEVEL OF CONSCIOUSNESS (ALOC)

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Abnormal neurologic state where child is less alert and interactive than is age appropriate

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years
- **Narcan** is contraindicated with neonatal resuscitation

TREATMENT

- ALS RMC
- Check blood glucose and treat if < 60 mg/dl (neonate < 40 mg/dl):
 - Neonate = **D10W** 2 ml/kg IV/IO
 - < 2 years = **D25W** 2 ml/kg IV/IO
 - >2 years = **D50W** 1 ml/kg IV/IO
- If unable to establish vascular access; **Glucagon** .03 mg/kg (max = 1 mg) IM; MR x 2 q 15 minute intervals
- **Narcan** 0.1 mg/kg IM/ IV/ IO/ ET/ SQ/ IN. MR Q 5 minutes up to 2 mg if no improvement in ALOC and strong suspicion of opiate exposure

RELATED POLICIES/ PROCEDURES

- Intranasal Medications Midazolam (Versed) and Narcan ALS PR 7

PEDIATRIC TOXIC EXPOSURES

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Probable ingestion and/or exposure to one or more toxic substances, including alcohol and medications


PHYSICIAN CONSULT

- **Calcium Channel Blocker, Beta-Blockers, and Tricyclic overdoses**

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years
- Bring identifying substance containers to hospital when possible / appropriate

TREATMENT

- ALS RMC
- Fluid bolus **NS** 20 ml/kg IV/IO as indicated
- If suspected opiate overdose in patient > four weeks, administer **Narcan** 0.1 mg/kg IV/IO/IM/IN prior to advanced airway
 - **Hydrocarbons or Petroleum Distillates**
 - Do not induce vomiting
 - Transport immediately
 - **Calcium Channel Blockers / Tricyclics / Beta-Blockers**
 - Transport immediately
 - If within one hour of ingestion Administer **Activated Charcoal** 1 gm/kg PO, max. of 50 gms, if airway is protected
 -  Physician consultation for additional treatments (i.e., Calcium Chloride, Sodium Bicarb)
 - **Caustics/Corrosives**
 - Do not induce vomiting
 - Consider dilution with no more than 1-2 glasses of water or milk if NO respiratory compromise or change in mental status
 - **Insecticides** (organophosphates, carbonates; cause cholinergic crisis characterized by bradycardia, increased salivation, lacrimation, sweating, muscle fasciculation, abdominal cramping, pinpoint pupils, incoherence or coma):
 - Decontaminate patient
 - **Atropine** 0.05 mg/kg IV/IO slowly every 5-10 min. to max. of 4 mg or relief of symptoms
 - If seizures: **Midazolam (Versed)** 0.05 mg/kg IV/IO/IM; MR q 10 minutes to maximum dose of 5 mg
 - For IN: 0.2 – 0.4 mg/kg (split dose in half for each nostril; maximum dose of 2 cc per nostril). Give every 5 minutes until seizure stops and/or maximum dose of 5 mg is reached.
 - **Phenothiazine Reactions**
 - **Benadryl** 1 mg/kg IM/IV/IO to max. of 50 mg
 - **Other Non-Caustic Drugs**, awake and alert
 - If within one hour of ingestion: **Activated Charcoal** 1 gm/kg PO, max. of 50 gms

SPECIAL CONSIDERATION

- Early contact with Poison Control Center

DOCUMENTATION- ESSENTIAL ELEMENTS

- Toxic substance identification
- Approximate time of exposure / ingestion

RELATED POLICIES/ PROCEDURES

- Intranasal Medications Midazolam(Versed) and Narcan ALS PR 7
- Pediatric Seizures P 9

PEDIATRIC BURNS

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Second or third degree burns (i.e., caustic material, electricity or fire) involving 10% or more of body surface area or those associated with respiratory involvement

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; Adolescent = >14 years
- Consider early intubation for severe facial burns
- Burns with trauma mechanism are to be transported according to the Marin County Trauma Triage Tool

TREATMENT

- ALS RMC
- Thermal/Electrical:
 - Remove patient to safe area
 - Eliminate source and stop the burning process (water may be used in the first few minutes to stop the burning process)
 - Remove all clothing/ jewelry
- Chemical:
 - Brush away any dry chemicals
 - Attempt to identify chemical; flush affected area with copious amounts of water unless contraindicated
- Support ventilation with high flow oxygen
 - If wheezing consider bronchodilator therapy- **Albuterol** 5 mg in 6 ml NS HHN
 - Re-evaluate airway frequently
- Expose affected area and apply clean dry sheet
- Keep patient warm to avoid hypothermia
- Fluid bolus 20 ml/kg **NS** IV/IO
- Pain management as indicated
- Transport by ground. If there is respiratory involvement, transport to the time closest ED by air or ground.

SPECIAL CONSIDERATION

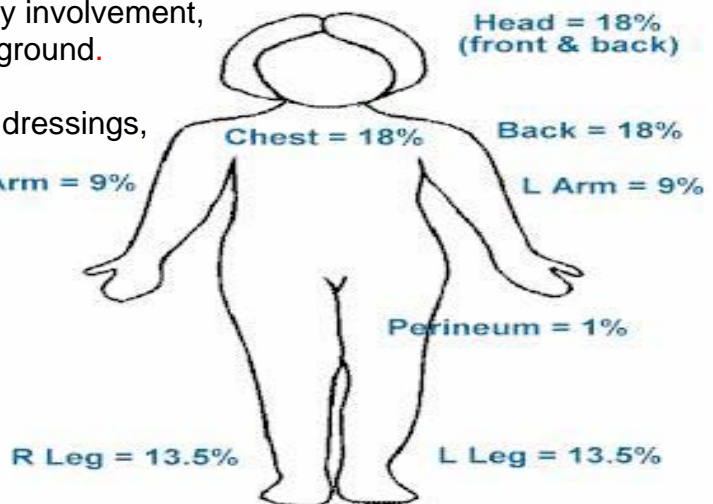
- Avoid hypothermia, do not use ice or wet dressings, and keep patient warm
- IV/IO required if BSA >10%

DOCUMENTATION- ESSENTIAL ELEMENTS

- Estimated percentage of BSA affected

RELATED POLICIES/ PROCEDURES

- Pediatric Pain Management P15
- Pediatric Shock P7



Child

PEDIATRIC TRAUMA

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Suspected or apparent injuries which meet conditions listed on the Marin County Trauma Triage Tool

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years; adolescent = >14 years
- Rapid transport to the appropriate trauma receiving facility is of paramount importance and must be taken into account in the field management of pediatric trauma patients.

TREATMENT

- ALS RMC
- Early trauma center notification
- Secure airway, maintaining C-spine precautions as per policy
- IV/ IO **NS** bolus 20 ml/kg; MR X 1
- Pain management as appropriate

SPECIAL CONSIDERATION

- If injury may have resulted from abuse, neglect, assaults, and/or other crimes, refer to Suspected Child Elder and/or Dependent Adult Abuse Policy for reporting.

RELATED POLICIES/ PROCEDURES

- Destination Guidelines GPC 4
- Trauma Triage and Destination Guidelines, 4613
- Suspected Child Elder and/ or Dependent Adult Abuse GPC 9
- Spinal Immobilization GPC 13
- Pediatric Pain Management P15

PEDIATRIC APPARENT LIFE-THREATENING EVENT (ALTE)

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- A frightening episode to the observer characterized by some combination of:
 - Apnea (central or obstructive)
 - Color change (cyanosis, pallor, erythema)
 - Marked change in muscle tone
 - Unexplained choking or gagging

PHYSICIAN CONSULT

- Parent/Designated Decision Maker (DDM) refuses medical care and/or transport

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Neonate = birth to four weeks; infant = four weeks to 1 year; child = 1-14 years;
- adolescent = >14 years
- Although ALTE usually occurs in patients < 12 months, any patient under 24 months who experiences any of the above indications should be considered
- Medical history: cardiac arrhythmias/anomalies, child abuse, meningitis, near SIDS, seizures, sepsis, toxic exposure, trauma

TREATMENT

- ALS RMC
- Check blood glucose and treat if < 60 mg/dl (< 40 mg/dl if neonate):
 - Neonate = **D10W** 2 ml/kg IV/IO
 - < 2 years = **D25W** 2 ml/kg IV/IO
 - ≥ 2 years = **D50W** 1 ml/kg IV/IO
 - If unable to establish vascular access; **Glucagon** .03 mg/kg (max = 1 mg) IM; MR x 2 q 15 minute intervals

SPECIAL CONSIDERATION

- Most ALTE patients have a normal physical exam
- Assume parental history is real. Encourage transport no matter how well the patient might appear.

DOCUMENTATION- ESSENTIAL ELEMENTS

- Severity, nature and duration of the episode
- General appearance of the patient, skin color, extent of interaction with the environment
- Evidence of trauma

RELATED POLICIES/ PROCEDURES

- Suspected Child/Dependent Adult/ Elder Abuse GPC 9

PEDIATRIC PAIN MANAGEMENT

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- To provide analgesia for pediatric patients (6 months to 14 years or up to 45 kg), especially if anticipated extrication, movement, or transportation would exacerbate the patient's level of pain


PHYSICIAN CONSULT

- Patients less than 6 months of age
- Patients with head, chest, or abdominal trauma; decreased respirations; ALOC (GCS < 15)
- Additional doses of narcotic after initial doses administered

CRITICAL INFORMATION

- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.
- Origin of pain (examples: isolated extremity trauma, chronic medical condition, burns, abdominal pain, multi-system trauma)
- Mechanism of injury
- Approximate time of onset
- Complaints or obvious signs of discomfort
- Use Visual Analog Scale (0-10) or Wong/Baker Faces Pain Rating Scale (see Appendix A). Express results as a fraction (i.e. 2/10 or 7/10).

TREATMENT

- ALS RMC
- **Morphine Sulfate** 0.1mg/kg IV/IO/IM; MR x 1 in 15 minutes following IV/IO administration, or in 30 minutes following IM administration. For patients with burn injuries, administer **Morphine Sulfate** 0.1 mg/kg IV/IO/IM in incremental doses up to 0.3 mg/kg.
-  Physician consult for additional doses
- Have **Narcan** available -

DOCUMENTATION- ESSENTIAL ELEMENTS

- Initial and post treatment pain score, expressed in a measurable form (i.e. 7/10)
- Interventions used for pain management (i.e. ice pack, splint, **Morphine Sulfate**)
- Reassessments made after interventions
- Initial and post treatment vital signs (including GCS in patients with ALOC)
- Physician consult if required

PEDIATRIC SEXUAL ASSAULT

ALWAYS USE BODY SUBSTANCE ISOLATION PRECAUTIONS

INDICATION

- Patients under 14 years of age with complaints consistent with sexual assault

CRITICAL INFORMATION

- Preserve possible evidence and advise patient not to clean, bathe or change clothes until after examination by hospital personnel
- Notify police and dispatch of nature of call
- Treat according to length based color-coded resuscitation tape. Apply corresponding wrist band.

TREATMENT

- BLS/ ALS RMC
- Calm/ reassure patient
- Assign responder of same sex as patient if possible
- Treat medical conditions/ traumatic injuries per protocol
- If no medical conditions/ traumatic injuries are apparent and assault occurred within 72 hours of report:
 - Law Enforcement will take the victim to Children's Hospital Oakland (CHO) for a medical evidentiary examination and should call the Emergency Department at CHO (510) 428-3240 and ask for the ED Social Worker on call
- If no medical conditions / traumatic injuries and the assault occurred > 72 hours of the report
 - Law Enforcement will make a decision of whether or not to proceed with the forensic medical examination
- If patient/ Designated Decision Maker (DDM) refuses transport, instruct patient/DDM not to shower and advise of alternative care/ transport options per AMA or RAS Policy

DOCUMENTATION- ESSENTIAL ELEMENTS

- Date and time of alleged assault
- Details of injuries noted
- Law Enforcement actions and determination of destination
- Patient's destination

RELATED POLICIES/ PROCEDURES

- AMA Policy GPC 2
- RAS Policy GPC 3
- Destination Guidelines GPC 4