Clinical Advisory Subcommittee of the Emergency Medical Care Committee

Meeting Agenda
10:15 A.M. Thursday, October 17th, 2024
Location: SLOEMSA Conference Room
2995 McMillan Ave, Ste 178
San Luis Obispo, CA 93401

Members
CHAIR: Dr. Stefan Teitge, *County Medical Society*
Dr. Heidi Hutchinson, *ED Physician Adventist*
Dr. Kyle Kelson, *ED Physician Adventist*
Dr. Lucas Karaelias, *ED Physician Dignity*
Diane Burkey, *MICNs*
Rob Jenkins, *Fire Service Paramedics*
Nate Otter, *Ambulance Paramedics*
Paul Quinlan, *Fire Service EMTs*
Lisa Epps, *Air Ambulance*
Jeffrey Hagins, *Air Ambulance*
Arneil Rodriguez, *Ambulance EMTs*
Casey Hidle, *Lead Field Training Officer*
VACANT, *Medical Director Appointee*

Staff
STAFF LIAISON: Ryan Rosander, *EMS Coordinator*
VACANT, *EMS Division Director*
Dr. William Mulkerin, *Medical Director*
Rachel Oakley, *EMS Coordinator*
VACANT, *EMS Coordinator*
Alyssa Vardas, *EMS Admin Assistant III*

AGENDA	ITEM	LEAD
Call to Order	Introductions	Dr. Teitge
	Public Comment	
Summary Notes	Review of Summary Notes August 15th, 2024	
	Review Clinical Advisory Members/Terms	
Discussion	**Protocol and Procedure Revisions:** • Protocol #603 – Pain Management • Protocol #640 – Adult Cardiac Chest Pain/Acute Coronary Syndrome • Protocol #641 – Cardiac Arrest (Atraumatic) **Policy Revisions:** • Policy #218 – Upgrade/Downgrade **Medication Formulary:** • Ketamine Hydrochloride (Ketalar)	Ryan Rosander
Adjourn	**Declaration of Future Agenda Items** • Roundtable	Dr. Teitge

	Next meeting date – December 19th, 2024 1015 hrs – **EMSA Conference Room** 2995 McMillan Ave. Suite 178 San Luis Obispo, CA 93401	

Clinical Advisory Subcommittee
of the Emergency Medical Care Committee

Meeting Minutes
10:15 A.M. Friday, June 21st, 2024
Location: SLOEMSA Conference Room
2995 McMillan Ave, Ste 178
San Luis Obispo, CA 93401

Members
X CHAIR: Dr. Stefan Teitge, *County Medical Society*
X Dr. Heidi Hutchinson, *ED Physician Tenet*
Dr. Kyle Kelson, *ED Physician Tenet*
Dr. Lucas Karaelias, *ED Physician Dignity*
Diane Burkey, *MICNs*
X Rob Jenkins, *Fire Service Paramedics*
Nate Otter, *Ambulance Paramedics*
Paul Quinlan, *Fire Service EMTs*
X Lisa Epps, *Air Ambulance*
Jeffrey Hagins, *Air Ambulance*
Arneil Rodriguez, *Ambulance EMTs*
Casey Hidle, *Lead Field Training Officer*
X Tim Nurge, *Medical Director Appointee*

Staff
X STAFF LIAISON: Ryan Rosander, *EMS Director*
X Dr. William Mulkerin, *Medical Director*
VACANT, *EMS Coordinator*
X Rachel Oakley, *EMS Coordinator*
X Alyssa Vardas, *EMS Admin Assistant III*

Guests
X Kris Strommen, *SLA*
X Serena Gennuso, *SLA*

AGENDA	ITEM	LEAD
Call to Order 1019	Introductions	Dr. Teitge
	Public Comment	
Summary Notes	No additions – R. Jenkins motions, N. Otter 2nds, Approved	
Discussion	**Revised Protocols #619, Revised Policy #155:** - SLOEMSA and the stakeholders would like to move Push Dose Epi from Base Hospital Orders to Standing Orders. - SLOEMSA would like to change the EMS Helicopter policy, particularly regarding broadening the expedited launch zones and the launch criteria. Discussion: - S. Teitge mentions how there can be finicky doctors because they don't want the liability for something happening during transport. Also mentions how anything we can move to standing orders is a good thing. - R. Rosander says that we will bring push-dose for cardiac next. - S. Teitge asks if the helicopter policy means that a helicopter gets launched every time one of these things happens.	Ryan

	- B. Mulkerin says that the reason for this is to cut down time on when the helicopter can get there. - L. Epps mentions how it usually takes a bit for them to get going and they often get canceled before lifting off. - S. Gennuso asks if there is any data to support this and whether we could slow down and gather the data before going forward. - B. Mulkerin mentions how this is just best practice. - R. Rosander says that the Expedited Launch Zones will eventually be a GIS map. - R. Jenkins mentions how we could go to section F and add something like see destinations. - R. Jenkins says how it is standard everywhere to keep ground aid coming until its clear they are not needed. - T. Nurge asks if we want to talk about EPI for any other protocols. Note that this was supported by members present:	
Adjourn - 1056	**Future Agenda Items:** - Upgrade/Downgrade Policy - PSFA Policy **Next meeting date –** Thursday, December 19th, 2024 1015 hrs – **EMSA Conference Room** 2995 McMillan Ave. Suite 178 San Luis Obispo, CA 93401	Dr. Teitge

Clinical - Dr. Stefan Teitge, Chairperson **Committee Term: 2 year with automatic renewal**

POSITION	No. OF REPS	APPOINTING BOARD REPRESENTATIVE	TERM
SLO County Medical Association – Dr. Easton-Carr	2	EMCC Representative for SLO County Medical Association	
Fire Service EMT – Paul Quinlan	1	Public Provider - EMCC or Co. Fire Chiefs	
Fire Service Paramedic – Rob Jenkins	1	Public Provider - EMCC or Co. Fire Chiefs	
Ambulance EMT – Arneil Rodriguez	1	Prehospital Transport Providers - EMCC Kelton	
Ambulance Paramedic – Nate Otter	1	Prehospital Transport Providers - EMCC Kelton	
Mobile Intensive Care Nurse - Diane Burkey	1	MICN/ED RN - EMCC MICN Nicole Hooper	
Hospital ED Physician – Dr. Lucas Karaelias	1	Emergency Physician - EMCC Dr. May	
Hospital ED Physician – Dr. Teitge	1	County Medical Assoc.– EMCC Tom Hale M.D.	
Hospital ED Physician- Dr. Kyle Kelson	1	Emergency Physician – EMCC Racheal May	
Lead FTO – Casey Hidle	1	Field Training Officer Committee	
Air Ambulance Provider – Lisa Epps	1	?	

COUNTY OF SAN LUIS OBISPO HEALTH AGENCY
PUBLIC HEALTH DEPARTMENT
Nicholas Drews *Health Agency Director*
Penny Borenstein, MD, MPH *Health Officer/Public Health Director*

MEETING DATE	October 17th, 2024
STAFF CONTACT	Ryan Rosander, EMS Director 805.788.2512 rrosander@co.slo.ca.us
SUBJECT	Upgrade/downgrade, atraumatic cardiac arrest, cardiac chest pain.
SUMMARY	The upgrade/downgrade policy was first introduced in the last Operations Subcommittee. After much debate, it was suggested that it be tabled and returned to the agenda for the following Operations Subcommittee. All language regarding Law Enforcement was removed from this policy. Several stakeholders and clinicians within San Luis Obispo County have requested that SLOEMSA consider adding vector change defibrillation to treat refractory VFIB and pulseless VTACH. Furthermore, why San Luis Obispo County starts defibrillation at a lower setting was brought forward. Both of these concerns have been addressed in the draft protocol for atraumatic cardiac arrest. Push-dose epinephrine was also placed in standing orders for paramedics in treating ROSC patients, allowing the paramedics within SLO County to use discretion in treating their patients without calling for an order. After conducting SLOEMSA's STEMI work group, concerns were voiced about several items within the Cardiac Chest Pain protocol. One concern was the need to call a base hospital for orders to give a fluid bolus after nitro administration. The STEMI work group also requests that SLOEMSA consider adding large-bore IVs (bilaterally preferred) to the protocol because it will benefit the patient if they go to the Cath lab. Finally, there has been growing concern over patients who are brought into FHMC for STEMI not having cardiac defibrillation pads out and ready by the patient. All these concerns have been addressed within the draft protocol. Lastly, during EMCC, Ketamine for pain management was approved for IM in addition to the IV/IO route. To be transparent in making decisions, SLOEMSA wants to discuss the IM/IN dosage for Ketamine in CAC and EMCC. Changes will then be applied to the pain management protocol and Ketamine formulary.
REVIEWED BY	Dr. William Mulkerin, SLOEMSA Staff, Operations Subcommittee
RECOMMENDED ACTION(S)	Policy #218: Upgrade/Downgrade or Cancellation of EMS Response, Protocol #641: Cardiac Arrest (Atraumatic), Protocol #640 Adult Cardiac Chest Pain/Acute Coronary Syndrome, Protocol #603: Pain Management, Ketamine Formulary, recommendation for approval by Clinical Advisory and moved to EMCC agenda.

ATTACHMENT(S)	Policy #218: Upgrade/Downgrade or Cancellation of EMS Response, Protocol #641: Cardiac Arrest (Atraumatic), and Protocol #640 Adult Cardiac Chest Pain/Acute Coronary Syndrome, Protocol #603: Pain Management, Ketamine Formulary.

PAIN MANAGEMENT

ADULT	PEDIATRIC (≤34 kg)
BLS	

• Universal Protocol #601
• **Pulse Oximetry**
  ○ O_2 administration per Airway Management Protocol #602
• **Medical** (non-cardiac)
  ○ Position of comfort
  ○ Nothing by mouth
• **Cardiac chest pain –** Chest Pain/Acute Coronary Syndrome Protocol #640
• **Trauma –** General Trauma Protocol #660
  ○ Splint, ice, elevate as indicated
	• Universal Protocol #601
	• **All causes of pain -** consider age/situation appropriate distraction techniques.
	  ○ Video Viewing
	  ○ Calm environment
	  ○ Caregiver support
	• **Medical**
	  ○ Position of comfort
	  ○ Nothing by mouth
	• Otherwise, same as adult

ALS Standing Orders	
MODERATE or SEVERE PAIN **Acute Pain –** SBP ≥ 90 mmHg, unimpaired respirations, GCS normal for baseline: • Fentanyl 50-100 mcg SLOW IV (over 1 min.), may repeat after 5 min. if needed (not to exceed 200 mcg total) OR • Ketamine 0.3mg/kg (max of 30mg) in 100ml Normal Saline, administer IV/IO over 10 minutes one time dose. **IF DIFFICULTY OBTAINING IV** • Fentanyl 50-100 mcg IM/IN (use 1 mcg/kg as guideline), may repeat after 15 min. if needed (not to exceed 200 mcg total) OR • Ketamine 0.5mg/kg (max of 40mg) IM one time dose. **Acute Pain –** multisystem trauma with head/thoracic/abdominal injuries, significant extremity trauma refractory to or contraindicated to Fentanyl: • Ketamine 0.3mg/kg (max of 30mg) in 100ml Normal Saline, administer IV/IO over 10 minutes one time dose.	**MODERATE or SEVERE PAIN** (Use age-appropriate indicators) **Acute Pain –** BP > age-based min., unimpaired respirations, GCS normal for age: • Fentanyl 1.5 mcg/kg IN (split between nares) • Fentanyl 1 mcg/kg 1M • (IN and 1M routes) may repeat after 15 min. if needed (not to exceed 4 doses) **IF IV ALREADY ESTABLISHED** • Fentanyl 1 mcg/kg SLOW IV (over 1 min), may repeat after 5 min. if needed (not to exceed 4 doses)

OR • Ketamine 0.5mg/kg (max of 40mg) IM one time dose.	
Base Hospital Orders Only	

• **Fentanyl administration with**
  ○ ALOC
  ○ SBP < 90 mmHg
  ○ Chronic pain
• Additional doses of Fentanyl
• One additional dose of Ketamine
• As needed
	• Same as adult
	• As needed.

Notes

- Consider doses of Fentanyl 25 mcg for initial dose in elderly (>65 y/o) and for maintenance doses
- Request orders, as appropriate, for obviously painful conditions not covered by standing orders.
- Use clinical judgement if a patient has difficulty using pain scale, or their reported pain is inconsistent with clinical impression.
  - Consider using FACES scale in adults with barriers to communication (below)
- Non-pharmacologic interventions should be provided concurrently or prior to medication administration.
- Do not withhold appropriate pain medication due to short transport times.
- Strongly consider initiating pain management on scene if movement is expected to be painful for patient (unless unstable condition requires rapid transport).
- Risk of adverse neurological events with Ketamine use is decreased with sub-dissociative doses and SLOW rate of administration.
- Ketamine may cause a slight increase in blood pressure and shall be avoided in hypertensive emergencies, dissecting aneurysms, hypertensive heart failure, and acute coronary syndrome.
- Ketamine is a potent anesthetic and dissociative agent in higher doses and is associated with higher incidents of significant adverse effects. This is **NOT** an approved use for prehospital care in the County of San Luis Obispo.
- Ketamine may be considered as preferable to fentanyl for patients that may have opioid tolerance due to habituation or addiction, and in patients where fentanyl use has other significant precautions.
- Ketamine should be considered as first line analgesic agent when fentanyl is contraindicated due to hypotension, pathology, or injury inhibiting respiration, evidence of hypovolemic/hemorrhagic shock, or multisystem trauma with high potential for internal hemorrhage.
- Ketamine administration to pediatric patients is **NOT** approved for use in the County of San Luis Obispo.

Ketamine Hydrochloride (Ketalar®)

Classification: Nonopioid Analgesic (sub-dissociative doses)

Actions: In sub-dissociative doses, provides analgesia by non-competitively blocking NMDA receptors to reduce glutamate release and by binding to sigma-opioid receptors.

Indications: **Moderate to Severe pain due to:**

1. Multisystem trauma with head, thoracic, or abdominal injuries.
2. Significant extremity trauma, dislocations, or burns:
    a. Refractory to fentanyl
    b. When fentanyl is contraindicated (see notes)
3. Acute pain management for medical patients:
    a. Refractory to fentanyl
    b. When fentanyl is contraindicated (see notes)
4. Pain management substitute for patients with an opioid tolerance.

Contraindications:

1. Conditions in which an increase in blood pressure would be hazardous (see notes)
2. Hypersensitivity
3. Known history of schizophrenia
4. Acute Coronary Syndrome
5. Pregnancy

Precautions: **1. History of severe Coronary Artery Disease**

Adverse Effects:

>10%
Cardiovascular: Tachycardia, hypertension, increase in cardiac output
Neurological: Dizziness, Tonic-Clonic Movement (non-seizure)

1-10%
Cardiovascular: Bradycardia, hypotension
Neurological: Dysphoria, partial dissociation, nystagmus

<1%
Anaphylaxis, arrhythmia, hypersalivation, hypertonia, laryngospasm*, respiratory depression/apnea, dysuria

Administration: **ADULT DOSE**

Pain Management

1. 0.3 mg/kg (max of 30mg) in 100ml Normal Saline, administer IV/IO over 10 minutes one time dose.
2. 0.5mg/kg (max of 40mg) IM

PEDIATRIC DOSE

*****Ketamine usage is not allowed for pediatric patients*****

Onset: IV onset 30-60 seconds, peak in less than 5 minutes.

Duration: Distribution half-life: 15 minutes
Duration of analgesia: 20-45 minutes

Notes:

- Risk of adverse neurological events is decreased with sub-dissociative doses and SLOW rate of administration.
- Mix adult dose of ketamine in 100ml bags of normal saline.
- Ketamine may cause a slight increase in blood pressure and shall be avoided in hypertensive emergencies, dissecting aneurysms, hypertensive heart failure, and acute coronary syndrome.
- Ketamine should be considered as first line analgesic agent when fentanyl is contraindicated due to hypotension, pathology or injury inhibiting respiration, evidence of hypovolemic/hemorrhagic shock, or multisystem trauma with high potential for internal hemorrhage.
- Ketamine may be considered as preferable to fentanyl for patients that may have opioid tolerance due to habituation or addiction, and in patients where fentanyl use has other significant precautions.
- Ketamine is a potent anesthetic and dissociative agent in higher doses and is associated with higher incidents of significant adverse effects. This is **NOT** an approved use for prehospital care in the County of San Luis Obispo.

ADULT CARDIAC CHEST PAIN/ACUTE CORONARY SYNDROME

FOR USE IN ADULT PATIENTS

BLS

- Universal Protocol #601 Pulse Oximetry
  - O_2 administration per Airway Management Protocol #602
- **Aspirin** 162 mg PO (non-enteric coated) chewable tablets
- May assist with administration of patient's prescribed **Nitroglycerin** with SBP ≥ 100 mmHg

ALS Standing Orders

- Obtain 12-lead ECG early
- **Nitroglycerin** 0.4 mg SL tablet or spray
  - Repeat every 5 min
- **Nitroglycerin Paste** 1 inch (1 Gm) may be considered after initial dose(s) of SL Nitroglycerin
- **HOLD NITROGLYCERIN** and consult base if:
  - 500 mL fluid bolus has been administered and SBP is trending towards or drops < 100 mmHg or in the presence of other signs/symptoms of hemodynamic instability.
  - Evidence of Right Ventricular Infarction (RVI) – see Notes

MODERATE or SEVERE PAIN

- **Refractory to Nitroglycerin**
  - **Fentanyl** 25-50 mcg SLOW IV (over 1 min), titrated to pain improvement, maintain SBP ≥ 100 mmHg
    - May repeat after 5 min if needed (not to exceed 200 mcg total)

If difficulty obtaining IV

- **Fentanyl** 50-100 mcg IM/IN (use 1 mcg/kg as guideline)
  - May repeat after 15 min if needed (not to exceed 200 mcg total)

Base Hospital Orders Only

- **Nitroglycerin** with
  - Significant decrease in SBP after administration
  - Patients taking erectile dysfunction medications
  - Atrial fibrillation with RVR
  - Evidence of RVI
- Additional **Fentanyl**

Persistent hypotension

- **Additional Normal Saline** bolus up to 500 mL
- **Push-Dose Epinephrine 10 mcg/mL** 1mL IV/IO every 1-3 min
  - Repeat as needed to maintain SBP >90 mmHg
  - See notes for mixing instructions

OR

- **Epinephrine Drip** start at 10 mcg/min IV/IO infusion
  - Consider for extended transport
  - See formulary for mixing instructions
- As needed

Notes

- Acute Coronary Syndrome – a group of conditions resulting from acute myocardial ischemia – including: chest/upper body discomfort, shortness of breath, nausea/vomiting, or diaphoresis
- Evidence for RVI: All inferior STEMI should be evaluated for ST elevation in V4R

- Atrial fibrillation with RVR is atrial fibrillation with a ventricular rate > 100
- Early notification of the SRC with "STEMI Alert" with a 12-lead ECG reading of ***Acute MI Suspected*** or equivalent based on monitor type.
- Large bore IVs are preferred in "STEMI Alerts".
- "STEMI Alerts" consider a secondary large bore IV with NS lock to assist the Cath Lab in tubing changes
- Have defibrillation pads out and ready on all "STEMI Alerts".
- **Mixing Push-Dose Epinephrine 10 mcg/mL (1:100,000)**: Mix 9 mL of **Normal Saline** with 1 mL of **Cardiac Epinephrine 1:10,000 (0.1 mg/mL)**, mix well

CARDIAC ARREST (ATRAUMATIC)

ADULT	PEDIATRIC (≤34 KG)
BLS Procedures	

• Universal Algorithm #601
• High Performance CPR (HPCPR) (10:1) per Procedure #712
  • Continuous compressions with 1 short breath every 10 compressions
• AED application (if shock advised, administer 30 compressions prior to shocking)
• Pulse Oximetry
  • O_2 administration per Airway Management Protocol #602
	• Same as Adult (except for neonate)
	• Neonate (<1 month) follow AHA guidelines
	• CPR compression to ventilation ratio
	  • Newborn – CPR 3:1
	  • 1 day to 1 month – CPR 15:2
	  • >1 month – HPCPR 10:1
	• AED – pediatric patient >1 year
	• Use Broselow tape or equivalent if available

ALS Procedures	

Rhythm analysis and shocks
• At 200 compressions begin charging the defibrillator while continuing CPR
• Once fully charged, stop CPR for rhythm analysis
• **Defibrillate V-Fib/Pulseless V-Tach –** Shock at ~~120J~~ 200J and immediately resume CPR. Subsequent shocks will also be 200J.
  • After 3rd shock, pt remains in refractory V-Fib or V-Tach, consider vector change defibrillation. (See notes)
  • ~~Subsequent shock, after 2 mins of CPR: 150J, then 200J~~
  • ~~Recurrent V-fib/Pulseless V-tach use last successful shock level~~
• **No shock indicated** – dump the charge and immediately resume CPR
 	
V-Fib/Pulseless V-Tach and Non-shockable Rhythms
• **Epinephrine 1:10,000** 1mg IV/IO repeat every 3-5 min
  • Do not give epinephrine during first cycle of CPR
 	
V-Fib/Pulseless V-Tach
• **Lidocaine** 1.5mg/kg IV/IO repeat once in 3-5 min (max total dose 3 mg/kg)
	• **<u>Emphasize resuscitation and HPCPR rather than immediate transport</u>**
	
	Rhythm analysis and shocks
	• Coordinate compressions and charging same as adult
	• **Defibrillate V-Fib/Pulseless V-Tach** – shock at 2 J/kg and immediately resume CPR
	  • Subsequent shock, after 2 mins of CPR: 4J/kg
	  • Recurrent V-Fib/Pulseless V-tach use last successful shock level
	• **No shock indicated –** dump the charge and immediately resume CPR
	
	V-Fib/Pulseless V-Tach and Non-shockable Rhythms
	• **Epinephrine 1:10,000** 0.01 mg/kg (0.1 ml/kg) IV/IO not to exceed 0.3mg, repeat every 3-5 min
	  • Do not give epinephrine during first cycle of CPR
	
	V-Fib/Pulseless V-Tach
	• **Lidocaine** 1 mg/kg IV/IO repeat every 5 min (max total dose 3 mg/kg)

ROSC with Persistent Hypotension (after fluid bolus) • Push-Dose Epinephrine 10 mcg/ml 1ml IV/IO every 1-3 min • Repeat as needed titrated to SBP >90mmHg • See notes for mixing instructions *OR* • Epinephrine Drip start at 10 mcg/min IV/IO infusion • Consider for extended transport • See formulary for mixing instructions	
	•
Base Hospital Orders Only	
~~ROSC with Persistent Hypotension~~ • ~~**Push-Dose Epinephrine 10 mcg/ml** 1ml IV/IO every 1-3 min~~ • ~~Repeat as needed titrated to SBP >90mmHg~~ • ~~See notes for mixing instructions~~ ~~***OR***~~ • ~~**Epinephrine Drip** start at 10 mcg/min IV/IO infusion~~ • ~~Consider for extended transport~~ • ~~See formulary for mixing instructions~~ **Contact STEMI Receiving Center (French Hospital)** • Refractory V-Fib or V-Tach not responsive to treatment • Request for a change in destination if patient rearrests en route • Termination orders when unresponsive to resuscitative measures • As needed **Contact appropriate Base Station per Base Station Report Policy #121** – Atraumatic cardiac arrests due to non-cardiac origin (OD), drowning, etc.)	Contact closest Base Hospital for additional orders **ROSC with Persistent Hypotension for Age** • **Push-Dose Epinephrine 10 mcg/ml** 1 ml IV/IO (0.1 ml/kg if <10kg) every 1-3 min • Repeat as needed titrated to age appropriate SBP • See notes for mixing instructions ***OR*** • **Epinephrine Drip** start at 1 mcg/min, up to max of 10 mcg/min IV/IO infusion • Consider for extended transport • See formulary for mixing instructions • As needed
Notes	

- **Mixing Push-Dose Epinephrine 10 mcg/ml (1:100,000):** Mix 9 ml of Normal Saline with 1 ml of **Epinephrine 1:10,000**, mix well.
- Use manufacturer recommended energy settings if different from listed.
- Assess for reversible causes: tension PTX, hypoxia, hypovolemia, hypothermia, hyperkalemia, hypoglycemia, overdose.
- Vascular access – IV preferred over IO – continue vascular access attempts even if IO access established).
- Consider Oral Intubation or Supraglottic Airways (Adults), provider discretion.
- If the provider cannot accomplish an ALS airway, they should document in the PCR why an ALS airway wasn't accomplished.
- Once an SGA has been placed, it should not be removed for an ETI.
- Stay on scene to establish vascular access, provide for airway management, and administer the first dose of epinephrine followed by 2 min of HPCPR.
- Adult ROSC that is maintained:
- Obtain 12-lead ECG and vital signs.
- Transport to the nearest STEMI Receiving Center ***regardless of 12-lead ECG reading***.
- Maintain O2 Sat greater than or equal to 94%.
- Monitor ETCO2
- ~~With BP < 100 mmHg, contact SRC (French Hospital) for fluid, or pressors.~~
- Termination for patients > 34 kg – Contact SRC (French Hospital) for termination orders.
- If the patient remains pulseless and apneic following 20 minutes of resuscitative measures.
- Persistent ETCO2 values < 10 mmHg, consider termination of resuscitation.
- Documentation shall include the patient's failure to respond to treatment and of a non-viable cardiac rhythm (copy of rhythm strip).
- Pediatric patients less than or equal to 34 kg.
- Evaluate and treat for respiratory causes.
- Use Broselow tape if available.
- Contact and transport to the nearest Base Hospital.
- Receiving Hospital shall provide medical direction/termination for pediatric patients.
- **Vector change defibrillation:** switch defibrillation pads to an anterior–posterior position and deliver subsequent defibrillations.

POLICY #218 UPGRADE DOWNGRADE OR CANCELLATION OF EMS RESPONSE

I. PURPOSE

A. To define the parameters by which on scene first response personnel may upgrade, downgrade, or cancel an EMS response within San Luis Obispo County.

II. POLICY

A. Cancelling an EMS Response

1. The IC or designee on scene of an incident may cancel a responding EMS resource upon determination of any of the following:

a. A patient cannot be located.

b. That the incident does not involve an injury or illness which would require assessment, treatment, or transport.

c. When the patient is a competent adult and is refusing EMS assessment and or transport.

d. The patient meets the criteria in III. C. for SLOEMSA Policy #125: Prehospital Determination of Death / Do Not Resuscitate (DNR)/End of Life Care (obvious death or no signs of life and has a verified DNR order).

B. Downgrading an EMS Response

1. The IC or designee on scene of an incident may reduce a responding EMS resource from code 3 to code 2 upon determination that, in the best judgment of the IC or designee, the illness or injury is not immediately life threatening and that the difference in code 3 and code 2 response time would not likely have an impact on patient safety/outcome.

C. Upgrading an EMS Response

1. The IC or designee on the scene of an incident may upgrade a responding EMS resource from code 2 to code 3 upon determination that, in the best judgment of the IC or designee, the illness or injury is immediately life threatening or that the difference in code 2 and code 3 response time would potentially have a positive impact on patient safety/outcome.

III. AUTHORITY

- California Health and Safety Code, Division 2.5, Sections 1797.204, 1797.220, & 1798
- California Code of Regulations, Title 22, Division 9, Chapter 4, Sections 100147, 100169 & 100170

Approvals:

EMS Agency, Administrator	
EMS Agency, Medical Director	